



STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

**REPORT OF EXAMINATION**  
*Change of: Point of Withdrawal*  
**WRTS File No. CG4-300052CL**

PRIORITY DATE	CLAIM NO.	PERMIT NO.	CERTIFICATE NO.
1894	300052		

NAME Sunnyside School District No. 201		
ADDRESS/STREET	CITY/STATE	ZIP CODE
1110 S. 6 <sup>th</sup> Street	Sunnyside, WA	98944-2197

**PUBLIC WATERS TO BE APPROPRIATED**

SOURCE A well		
TRIBUTARY OF (IF SURFACE WATERS)		
MAXIMUM CUBIC FEET PER SECOND (cfs)	MAXIMUM GALLONS PER MINUTE (gpm)	MAXIMUM ACRE FEET PER YEAR (ac-ft/yr)
	20	3.69
QUANTITY, TYPE OF USE, PERIOD OF USE Up to a maximum of 3.69 acre-feet per year for continuous domestic multiple use at an elementary school.		

**LOCATION OF WITHDRAWAL**

APPROXIMATE LOCATION OF WITHDRAWAL Approximately 1750 feet east and 335 feet south from the northwest corner of Section 20, T. 10 N., R. 22 E.W.M.					
LOCATED WITHIN (SMALLEST LEGAL SUBDIVISION)	SECTION	TOWNSHIP	RANGE	WRIA	COUNTY
NE <sup>1</sup> / <sub>4</sub> NW <sup>1</sup> / <sub>4</sub>	20	10 N.	22 E.W.M.	38	Yakima
PARCEL NUMBER	LATITUDE	LONGITUDE	DATUM		
221020-21006	46.345	-120.097	NAD 83		

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

South 606 feet of the North 636 feet of the East 706 feet of the West 726 feet of the NE<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> EXCEPT the North 180 feet of the West 170 feet and EXCEPT the North 30 feet of County Road Right-of-Way and EXCEPT the West 20 feet DD#2 Right-of-Way.

**DESCRIPTION OF PROPOSED WORKS**

The well is approximately 8 inches in diameter and approximately 243 feet deep. The water is being pumped with a 7.5 horsepower submersible/turbine pump that has a maximum capacity of pumping 70 gallons per minute. The pipe diameter leading underground from the well is a 2-inch metal pipe, which increases to a 3-inch copper pipe inside the building, where two holding tanks of approximately 500-gallon capacity each are filled.

**DEVELOPMENT SCHEDULE**

BEGIN PROJECT BY THIS DATE	COMPLETE PROJECT BY THIS DATE	WATER PUT TO FULL USE BY THIS DATE
Begun	Completed	December 31, 2010

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## PROVISIONS

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### **Wells, Well Logs and Well Construction Standards**

1. 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.
2. 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.
3. 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.
4. Required installation and maintenance of an access port as described in WAC 173-160- 291(3).
5. In addition to the required access port, the applicant shall install and maintain, in operating condition, an airline and pressure gage. The pressure gage shall be equipped with a standard tire valve and placed in a location accessible to Department of Ecology personnel. 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.
6. Wells that are no longer intended to be used are required by WAC 173-160, "Minimum Standards for the Construction and Maintenance of Wells," to be properly decommissioned by a Washington State licensed well driller.

### **Measurements, Monitoring, Metering, and Reporting**

7. 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>.
8. Water use data shall be recorded bi-weekly (every other week) and maintained by the property owner for a minimum of five years. 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.
9. Recorded water use data shall be submitted via the Internet. To set up an Internet reporting account, contact the Central Regional Office. If you do not have Internet access, you can still submit hard copies by contacting the Central Regional Office for forms to submit your water use data.
10. 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. Installation, operation and maintenance requirements are enclosed as a document titled "Water Measurement Device Installation and Operation Requirements." <http://www.ecy.wa.gov/programs/wr/measuring/measuringhome.html>.

### **Schedule and Inspections**

11. 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.
12. The water right holder shall file the notice of project completion when the permanent distribution system has been constructed and the quantity of water required by the project has been put to full beneficial use. The Certificate of Change will reflect the extent of beneficial use within the limitations of the change authorization. Elements of the project completion inspection may include, as appropriate, the source(s), system instantaneous capacity, beneficial use(s), annual quantity, place of use, and compliance with provisions.

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**FINDINGS OF FACT AND ORDER**

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Upon reviewing the investigator's report, I find all facts relevant and material to the subject application have been thoroughly investigated. Furthermore, I find the change of water right as recommended will not be detrimental to existing rights or to the public welfare.

Therefore, I ORDER approval of the recommended change of point of withdrawal under Change Application No. CG4-300052CL, 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:

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

OR

Deliver your appeal in person to:

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:

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

OR

Deliver your appeal in person to:

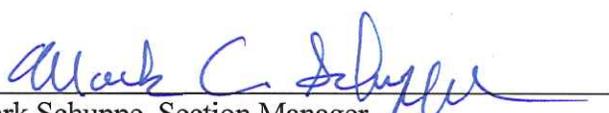
Department of Ecology  
Appeals and Application for Relief  
Coordinator  
300 Desmond Dr SE  
Lacey, WA 98503

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

Mark Schuppe  
Department of Ecology  
Central Region Office  
15 West Yakima Avenue, Ste 200  
Yakima, WA 98902

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 Yakima, Washington, this 7th day of January 2010.

  
Mark Schuppe, Section Manager  
Water Resources Program  
Central Region Office

**BACKGROUND**

**Description and Purpose of Proposed Change**

On August 6, 2008, Sunnyside School District No. 201 submitted an application to the Department of Ecology (Ecology) to change the point of withdrawal (POW) under Claim No. 300052. The application was accepted and assigned Control No. CG4-300052CL. On March 24, 2008, Scott Torpie, regional manager for the Office of Drinking Water, submitted a letter requesting Ecology to consider the subject application for priority processing. The previously-used well (Well #2) is stated as having contaminated water quality and a newer, deeper well (Well #3) is proposed as a substitute for installing nitrate treatment to the existing well. The location of the previous and the proposed well, under this application, are both located in the NE¼NW¼ of Section 20, T. 10 N., R. 22 E.W.M., Yakima County.

This application qualifies for expedited processing under WAC 173-152-050(1)(b), WAC 173-152-050(2)(a), and WAC 173-152-050(3)(b) whereby Water Right Change Applications may be processed prior to applications submitted at an earlier date when the change or transfer, if approved, would result in providing public water supplies to meet general needs of the public for regional areas.

**Table 1:** Attributes of the Claim and Proposed Change

<i>Attributes</i>	<i>Existing</i>	<i>Proposed</i>
Priority Date	1894	No change
Source	Well #2	Well #3
Instantaneous Quantity	20 gallons per minute	No change
Annual Quantity	3.69 acre-feet per year	No change
Purpose of Use	Domestic multiple	No change
Period of Use	Continuous year round	No change
Place of Use	Within the NE¼NW¼ of Sec. 20, T. 10 N., R. 22 E.W.M. (Parcel No. 221020-21006)	No change

**Legal Requirements for Proposed Change**

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

- **Public Notice**  
Public notice of the change application was given in the Daily Sun News of Sunnyside, Washington on April 9 and April 16, 2009. There were no protests during the 30-day protest period.
- **State Environmental Policy Act (SEPA)**  
In accordance with WAC 197-11-800(4), WAC 197-11-305, and RCW 43.21C.030(2)(c), this Water Right Change Application is categorically exempt from environmental review under SEPA.
- **Water Resources Statutes and Case Law**  
The Washington Supreme Court has held that Ecology, when processing an application for change to a water right, is required to make a tentative determination of extent and validity of the claim or right. This is necessary to establish whether the claim or right is eligible for change. *R.D. Merrill v. PCHB* and *Okanogan Wilderness League v. Town of Twisp*.

RCW 90.03.380(1) states that a water right which 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.

RCW 90.44.100 allows Ecology to amend a ground water permit to (1) allow the user to construct a replacement or additional well at a new location outside of the location of the original well, or to (2) change the manner or place of use of the water, if:

- (a) The additional or replacement well taps the same body of public ground water as the original well. RCW 90.44.100(2)(a).
- (b) Where a replacement well is approved, the user must discontinue use of the original well and properly decommission the original well. RCW 90.44.100(2)(b).
- (c) Where an additional well is constructed, the user may continue to use the original well, but the combined total withdrawal from all wells shall not enlarge the right conveyed by the original permit or certificate. RCW 90.44.100(2)(c).
- (d) Other existing rights shall not be impaired. RCW 90.44.100(2)(d).

## INVESTIGATION

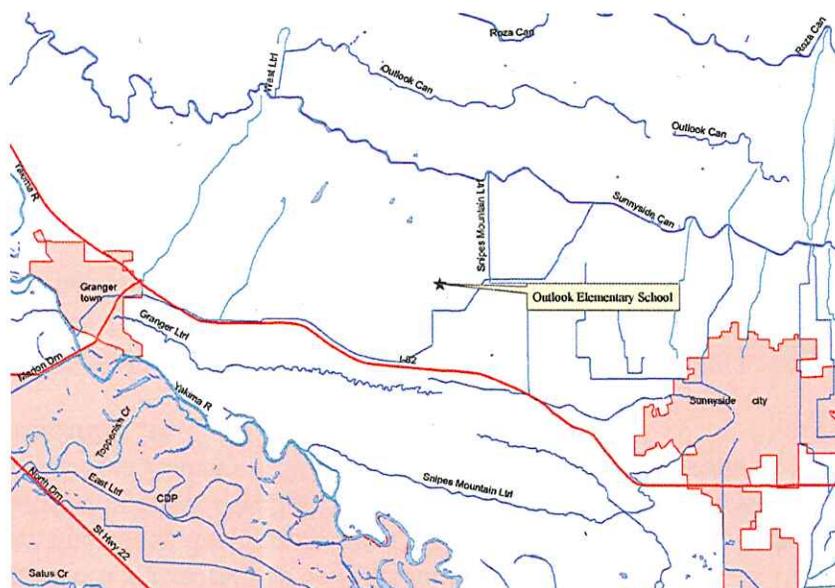
The author of this Report of Examination (ROE) conducted the investigation. In considering this application and to meet the above-listed legal requirements, the investigation included but was not limited to research and/or review of:

1. The State Water Code, administrative rules, and policies.
2. Existing water rights on file.
3. Well reports.
4. Notes from site visit conducted on May 6, 2009.
5. Any relevant communication.
6. Aerial photographs of the site.
7. Hydrogeologist's Technical Memorandum (June 2009, Walker).
8. DOH's *Water System Design Manual*.
9. Other studies, reports, and file notes.

## History of Water Use

The subject property of this application lies approximately 3.5 miles northwest of north Sunnyside within the Lower Yakima Basin, WRIA 37, Granger Sub Basin No. 26 in Yakima County.

**Figure 1: Vicinity Map**



On December 3, 1997, Statement of Water Right Claim No. 300052 was registered to Sunnyside School District No. 201 for the amount of 20 gallons per minute (gpm), 3.69 acre-feet per year (ac-ft/yr) for continuous commercial supply to a school building. The original elementary school was built in 1894. A subsequent fire destroyed the building sometime in 1930. On November 12, 1930, rebuilding of the school began. The first drilled well (Well #1) on record is reported as being inactive as of January 1, 1970, through the DOH Water System web page and has since been decommissioned. The replacement well, which was drilled on May 24, 1999, and abandoned in 2008, (Well #2) has been decommissioned per WAC 173-160. The proposed well (Well #3), which was drilled January 4, 2008, is the subject of this application. All three wells are located within the NE¼NW¼ of Section 20, T. 10 N., R. 22 E.W.M.

On August 6, 2008, Sunnyside School District No. 201 submitted an application to Ecology to change the POW from Well #2 to Well #3 rather than install nitrate treatment to the affected well. Well #3 was drilled due to the nitrate level in Well #2 having exceeded the 10.0 mg/L maximum contaminant level in December 2007.

**Site Visit**

Ecology personnel, Candis Graff and Kurt Walker, along with Braven Bendzak, representative from Sunnyside School District, visited the site May 6, 2009, to examine and take Global Positioning Satellite (GPS) coordinates of the proposed well. GPS points were recorded for Well Nos. 1, 2, and 3. Information pertaining to the water delivery system, including the indoor holding tanks was also gathered. During the site visit it was also noted that school drinking fountains and restroom facilities operate on an automated system and that hand sanitation systems are used and encouraged as an alternative to water use.

**Proposed Use**

The applicant proposes to use a newer, deeper well to provide water to Outlook Elementary School and to use only the water currently authorized under the claim. While the purpose of use on the original claim form was originally designated as commercial, the intended use specified a school building; therefore, the purpose described henceforth in this ROE will be referred to as domestic multiple for up to 600 students. Irrigation for the approximate four acres of lawn is, and will continue to be, provided through Sunnyside Valley Irrigation District.

Metering records are not available so Ecology deferred to DOH’s *Water System Design Manual*, which provides a guide for non-residential water demand for schools. According to Table 5-2 of that report, a typical school with cafeteria but no gymnasium or showers uses up to 20 gallons per day (gpd) per pupil.<sup>1</sup> This estimate was then calculated for an average of 550 students over a 180-day school year and converted to total annual acre-feet. The total suggests that up to 6.076 ac-ft/yr is a reasonable water demand. However, the subject elementary school for this application does have a gymnasium, so the range of reasonable use could be somewhat higher, yet no increase in water demand from that previously registered on the original claim is being sought by nor awarded to the applicant.

**Development Schedule**

During a phone conversation in April 2009 with the applicant’s contact, Braven Bendzak, the terms of the Development Schedule were discussed. They were further discussed and agreed upon again during the May 6, 2009, site visit. Well #3 was drilled in 1999 and is complete. The delivery system and meter are already in place.

**Table 2:** Other Rights in the Vicinity and Appurtenant to the Place of Use

Water Right No.	Document Type	Purpose	Qi	Qa
Court Claim No. 1752	Conditional Final Order	IR	1,316 cubic feet per second	435,422

The above referenced right is for Sunnyside Division, a municipal entity in which Sunnyside Valley Irrigation District (SVID) has an established boundary that includes the applicant’s place of use (POU). Irrigation of Outlook Elementary School’s surrounding grassy playground and landscaping is watered with SVID water.

## Hydrologic/Hydrogeologic Evaluation

Impairment to other ground water rights is not anticipated as a result of this change; however, to meet the expectations of both the water right holder proposing to change the water right and other water right holders (“no impairment”) competing for the same source of water, it is necessary to consider the hydrologic effects between the old system and the new system. Through this analysis, an understanding can be gained of the potential for the addition in POW and the water delivery system to affect other water right holders. Finally, a conclusion whether impairment would occur and what conditions might prevent it can then be formulated. The following technical analysis was prepared by Kurt Walker, and reviewed by Thomas Mackie, licensed hydrogeologist.

## Geologic Setting

### *Area Geology of the Yakima River Valley*

The geology of the Yakima River Valley (YRV) is composed of tectonically deformed Columbia River Basalts and basin-filling sedimentary deposits. In this area, the Columbia River Basalt (CRB) flows have been strongly folded and faulted through regional north-south compression into a series of east-west trending anticlinal ridges and synclinal valleys known as the Yakima Fold and Thrust Belt (Campbell and Bentley, 1981.) The Outlook Elementary lies between two anticlinal structures; Rattlesnake Ridge to the north and Snipes Mountain to the south. For purposes of this report, the CRB’s are considered to be basement rocks. Sedimentary material, deposited on top of the CRB’s before, during, and after tectonic deformation, is generally thin or absent across the ridge tops. However, valley-fill sediments can exceed 1,000 feet in thickness, and consist of generally unconsolidated materials including Upper Ellensburg Formation (UEF), Touchet-beds (flood-features), loess, and alluvium deposits (Jones and others, 2006.)

The UEF makes up the bulk thickness of the valley fill material. Jones and others (2006) note that near the area of interest, the UEF is measured up to 970 feet thick with a median average thickness of 320 feet. The UEF consists of volcanoclastic materials including clays, silts, sands, gravels, as well as lahars, tuffs, sandstones, siltstones, and conglomerates. The source of the UEF lies to the west where explosive volcanism during the formation of the Cascade orogenic belt and erosion brought down new materials where it aggraded in the valleys below. While the UEF materials may share a common origin, the cementation, porosity, and permeability vary throughout the unit. As evidenced by area well logs, the UEF is composed of numerous sequences of poorly sorted fine and coarse materials. Well sorted lacustrine sediments, identified as clay on well logs, can be tens of feet thick, laterally extensive, and often occur between coarser deposits of sand and gravel.

The bedding attitudes of the UEF have been strongly affected by regional tectonic shortening and folding of the underlying CRB’s which occurred contemporaneously with deposition of the UEF (Schmincke, 1964). While successively younger deposits of the UEF will be less deformed, macro-scale bedding attitudes are generally presumed to roughly mirror the slope of the land surface. The south limb of Rattlesnake Ridge generally slopes less than 10 degrees while the north dipping limb of Snipes Mountain slopes greater than 25 degrees. The topography and slope of the area in the vicinity of the Outlook Elementary is nearly horizontal. More recent surficial deposits of Touchet beds, loess, and alluvial materials overlie the UEF. While the more recent sediments average 10 feet in thickness across the YRV, they can be nearly 80 feet thick in the vicinity of the subject area.

Touchet beds are slack-water flood deposits comprised primarily of fine grained sediment with sparse coarse material. During Ice-Age flood events (12,000 to 18,000 years ago), water was hydraulically dammed behind Wallula Gap temporarily forming Lake Lewis. As Lake Lewis rose and inundated the Yakima Valley, large amounts of sediment fell out of suspension and were deposited in upward fining layers called rhythmite. Sequences of these rhythmite were formed as 40-70 individual flood events (Spencer and Jaffee, 2002) created a composite of beds several tens of feet thick. Touchet beds are widely exposed in the lowlands of the YRV, but can be concealed by more recent deposits of loess and alluvium.

### *Site Geology near Outlook Elementary*

The site specific geologic description is based on geologic mapping (Schuster, 1994), well logs, and site observations. The CRB’s form the bedrock floor at a depth around 400 feet below ground surface (bgs.) Outcrops of CRB’s can be found on Snipes Mountain approximately two miles to the south of Outlook Elementary and approximately five miles to the north on Rattlesnake Ridge. The structural depression between Rattlesnake Ridge and Snipes Mountain is partially filled with 300-350 feet of consolidated to unconsolidated UEF sedimentary materials. The UEF outcrops approximately three miles to the north and two miles to the south of the subject well. The UEF is overlain by locally extensive Touchet beds. The Touchet beds range from 20 feet to more than 60 feet thick with an average thickness of 35 feet in the subject area. Where present, several feet of loess and alluvium may cap the underlying Touchet beds.

## Hydrogeologic Analysis of the Site

### Area Hydrogeology

The valley fill deposits of the UEF compose the primary aquifer in the area of interest. The subject aquifer is bound by the overlying Touchet beds and by the CRB's at depth. The UEF aquifer is approximately 300 feet thick in the Outlook area and has wide ranges of cementation, porosity, and permeability. Because the hydraulic properties change spatially, the aquifer is heterogeneous and anisotropic. Recharge to the subject aquifer is primarily through precipitation and exchanges with surface water, along with seasonal contributions from canal leakage and irrigation return flows. Recharge occurs primarily on the ridges or places where the UEF is exposed at or near the ground surface. Discharge is to area wells and to surface waters where head relationships and aquifer geometries facilitate. The fine grained sediment of the overlying Touchet beds tend to act as an aquitard to recharge and discharge in the Outlook area.

### Outlook Area Wells and Artesian Conditions

Outlook area wells are generally completed into the coarser, more permeable strata while the fine grained units may act as aquitards or confining layers. Area well logs note that clay and silt units, which are tens of feet thick, are found at a depth around 100 feet bgs. Where the overlying Touchet beds and fine grained confining layers are laterally extensive, a build-up of hydrostatic pressure has led to artesian conditions. In general, wells drilled deeper than 100 feet have water levels at or near the ground surface. The proposed well had a static water level of one foot bgs at the time of drilling.

### Outlook Elementary Wells

The District has had three potable wells and one fire protection well drilled for the Outlook Elementary (Figure 2). For purposes of this report, the wells will be referred to by the year they were drilled. The potable source wells were drilled in 1944, 1999, and 2008. The fire protection well was drilled in 2002. Very little information is available regarding the 1944 well other than it was likely less than 100 feet deep and had a static water level just below the ground surface. In 1999, the District decommissioned the 1944 well in favor of a well which met modern well construction standards to service the new Elementary building. The 1999 well was constructed less than 20 feet to the west of the 1944 well location. It had an 8-inch casing, was drilled to 132 feet bgs, and maintained a static water level of one foot bgs. The driller encountered top soil, sand, gravel, cemented gravel, and sandstone, and estimated the well production at 80+ gpm. According to Mr. Bendzak, the 2002 well was drilled to meet DOH's fire protection regulations. The 2002 well is located approximately 500 feet west of the 1999 and 1944 well locations and is only used to meet the school's fire suppression needs. It is a 10-inch well drilled to 194 feet bgs and had an artesian head of 2.5 feet above the land surface at the time of drilling. The driller reported encountering top soil, sandstone, gravel, sand, and silt. Similar materials were encountered when the 2008 well was constructed. The 2008 well, which is the subject of this change request, is located around 300 feet west of the 1944 and 1999 well sites. The 2008 well has an 8-inch casing, and was constructed to a depth of 243 feet bgs. The driller recorded encountering loam (0-55 feet), clay (55-65 feet), sand (65-87 feet), sand and gravel (87-93 feet), clay (93-140 feet), sand (140-170 feet), and gravel and sand (170-243 feet.) The driller noted the static water level at one foot bgs and estimated the production at 300+ gpm.

Figure 2

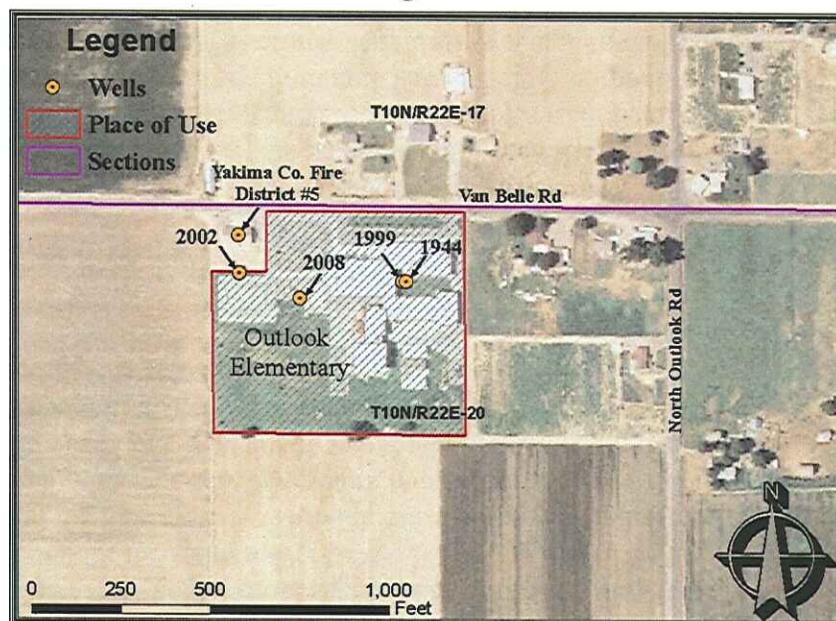


Image Source: 2006 NAIP Air Photo

## *Site Hydrogeology*

Well logs, geologic maps and literature estimates were used to characterize the subject aquifer near Outlook Elementary. The aquifer is a confined heterogeneous, anisotropic, sediment aquifer comprised volcaniclastic materials. The aquifer is approximately 300–400 feet thick, but wells are typically less than 200 feet deep and do not utilize the full available saturated thickness. Wells completed into the UEF aquifer often have water levels at or near the ground surface and yield between 60 gpm and 300+ gpm. No local aquifer test data is available and only limited poor quality pumping data is presented on the available well logs; therefore, other means were used to estimate the aquifer conductivity (K). Consideration of the sediment composition and cementation, limited well yield data, and literature estimates of similar materials, was used to estimate the overall aquifer K at roughly 100-300 gallons per day per square foot of aquifer material (gpd/ft<sup>2</sup>). This value is consistent with the K estimates of sandstone and silty to clean sand (Freeze and Cherry, 1979).

### **Impairment of Groundwater Users**

An evaluation of well logs and aerial photographs were used to identify wells near the subject well, which may experience drawdown as a result of this change. The proposed well is located further away from any identified domestic wells than the 1944 and 1999 well sites. However, the 2008 well is located closer to the school's fire protection well and a well owned by Yakima County Fire District #5. The 2008 well is located approximately 250 feet southeast of the Fire District well. An evaluation using the Theis non-equilibrium equation and the estimated aquifer parameters discussed above was performed to assess possible pumping interference as result of the change. The evaluation was based on a scenario in which the proposed well was pumped continuously at the full instantaneous quantity (20 gpm) for just over 40 days until the annual quantity of water claimed (3.69 acre-feet) was withdrawn. This 40 day scenario evaluates the greatest potential for drawdown, albeit it is an unlikely situation given the school's need for water use year round. Never the less, results indicate that drawdown due to pumping from the proposed well is estimated to be less than one foot at the nearest known well (Fire District). As a result, withdrawals from the proposed well are not anticipated to result in the impairment of any ground water users.

### **Same Source Consideration**

The Department of Ecology considers the original well (1944) and the subject well (2008) to be utilizing a common aquifer. The 1944 and 2008 well heads are located 300 feet apart and both are constructed into the Ellensburg Formation aquifer. Therefore, the 1944 well and the 2008 well are considered to be withdrawing from the same body of public ground water.

### **Public Interest Considerations**

When investigating an application to change a ground water right, Ecology must examine the impact such a change will have on the public interest (RCW 90.44.100).

Public interest issues are commonly articulated in the form of protest letters, but Ecology received no letters of public protest. Other public interest issues can include a wide range of factors that may include such things as water quality. Water quality can be associated with a ground water change; however, this change is being initiated to avoid poor water quality, specifically nitrate contamination, which is consistent with DOH's Drinking Water Program's mission of assuring a safe supply. The change in POW is unlikely to negatively impact the quality of water withdrawn under Claim No. 300052.

### **Consideration of Protests and Comments**

No comments or protest were submitted to Ecology.

### **CONCLUSIONS**

In accordance with RCW 90.03 and 90.44, the author of this ROE makes a tentative determination that Claim No. 300052 is a valid claim and is eligible for change. Approval of this change request as provisioned above will not cause impairment of existing rights nor enlarge the existing right and will not be detrimental to the public interest. Additionally, the replacement well taps the same body of public ground water as the original well.

**RECOMMENDATIONS**

Based on the above investigation and conclusions, Ecology recommends Ground Water Application No. CG4-300052CL be **approved** within the limitations listed below and subject to the provisions beginning on Page 2, et seq.

**Purpose of Use and Authorized Quantities**

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

- 20 gallons per minute.
- 3.69 acre-feet per year.
- Continuous multiple domestic for a school.

**Point of Withdrawal**

NE¼NW¼, Section 20, Township 10 North, Range 22 E.W.M.

**Place of Use**

As described on Page 1 of this Report of Examination.

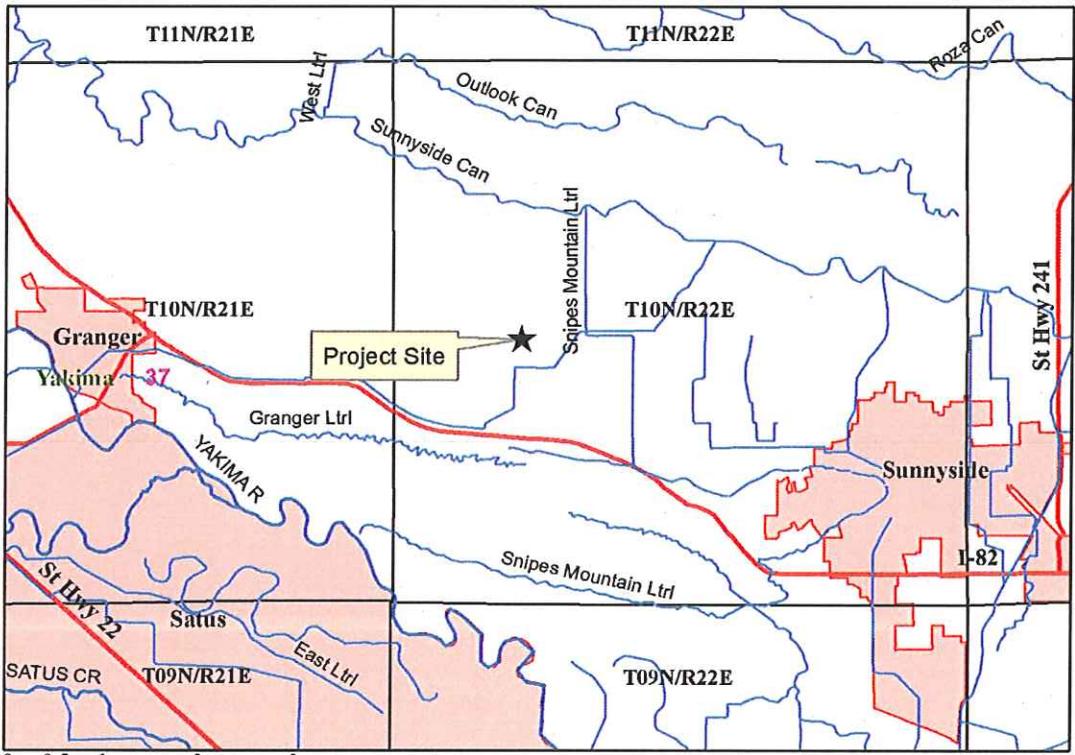
Report by: Candis L. Graff  
Candis L. Graff, Water Resources Program

1-6-2010  
Date

*If you need this publication in an alternate format, please call Water Resources Program at 509 575 2490. Persons with hearing loss can call 711 for Washington Relay Service. Persons with a speech disability can call 877-833-6341.*



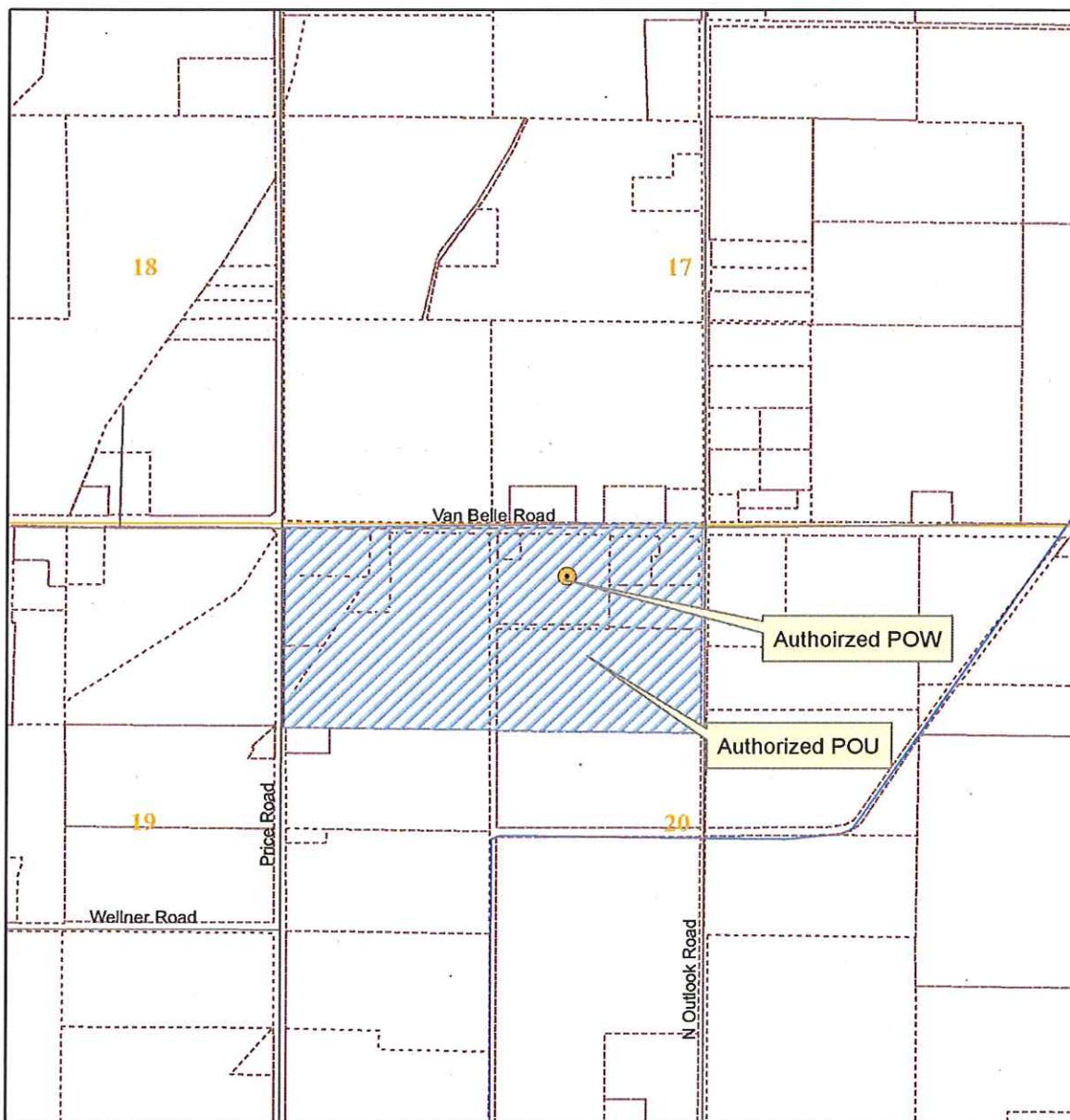
Sunnyside School District No. 201  
 Change Authorization No. CG4-300052CL  
 Sec. 20, T. 10 N., R. 22 E.W.M.  
 WRIA 38 - Yakima County



Legend

-  Authorized POW
-  County
-  Cities
-  WRIA
-  Township
-  Sections
-  Parcels
-  Authorized POU
-  Main Highways
-  Local Roads
-  Rivers
-  Canals

Comments:  
 Place of Use and Points of Withdrawal are as defined on the cover sheet under the heading, 'LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS TO BE USED.'



Attachment 1