STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
REPORT OF EXAMINATION
CHANGE OF G2-24185
WRTS File #CG2-24185@2

PRIORITY DATE	CLAIM NO.	PERMIT NO.	CERTIFICATE NO.
May 14, 1976			CG2-24185@2

NAME
Rainier View Water Company Inc.

ADDRESS/STREET	CITY/STATE	ZIP CODE
PO Box 44427	Tacoma, WA	98448-0247

PUBLIC WATERS TO BE APPROPRIATED

SOURCE
Emerald Terrace Well (Tag # ABA-845)

TRIBUTARY OF (IF SURFACE WATERS)

MAXIMUM CUBIC FEET PER SECOND (cfs)	MAXIMUM GALLONS PER MINUTE (gpm)	MAXIMUM ACRE FEET PER YEAR (ac-ft/yr)
	30 gpm	18.34

QUANTITY, TYPE OF USE, PERIOD OF USE
18.34 Acre-feet per year Multiple domestic supply Year-round as needed

LOCATION OF DIVERSION/WITHDRAWAL

APPROXIMATE LOCATION OF DIVERSION—WITHDRAWAL
350 feet south and 440 feet east of the northwest corner of Section 20

LOCATED WITHIN (SMALLEST LEGAL SUBDIVISION)	SECTION	TOWNSHIP	RANGE	WRIA	COUNTY
NW NW	20	18	4.E.W.M.	11	Pierce

SOURCE	PARCEL	LATITUDE	LONGITUDE	QTR/QTR	SECTION	TOWNSHIP	RANGE

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]

The Southwood Water System of Rainier View Water Company serves customers in T 19 N, R 4 E, Sections 32 and 33; T 18 N, R 3 E, Sections 1, 2, 3, 10, 11, 12, 13 14, 23, 24, and 25; T 18 N R 4 E, Sections 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, and 30.

DESCRIPTION OF PROPOSED WORKS

DEVELOPMENT SCHEDULE

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

PROVISIONS

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.

The subject well has been tagged with a well identification number. This unique well number must remain attached to the well. Please reference this number when submitting data.

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

Water use data must be recorded weekly and maintained by the property owner for a minimum of five years. The maximum monthly rate of withdrawal and the monthly total volume must be submitted to the Department of Ecology by January 31st of each calendar year.

Submit all quarterly water level data annually (by January 31) to the following Southwest Regional Office staff:

Metering Coordinator
Water Resource Program
Southwest Regional Office
Department of Ecology
P.O. Box 47775
Olympia, WA 98504-7775

Prior to any new construction or alterations of a public water supply system, the State Board of Health rules require public water supply owners to obtain written approval from the Office of Drinking Water of the Washington State Department of Health. Please contact the Office of Drinking Water at Southwest Drinking Water Operations, 2411 Pacific Avenue, PO Box 47823, Olympia, WA 98504-7823, (360) 664-0768 prior to beginning (or modifying) your project.

Legally enforceable agreements that prohibit construction of future exempt wells to serve the properties involved in exempt well consolidations are required. Appropriate binding limitations must be placed on the titles to these properties to ensure applicability to subsequent land owners. Copies of the agreements must be submitted to the Department of Ecology Southwest Regional Office prior to Proof of Appropriation or earlier, upon request.

Department of Ecology personnel, upon presentation of proper credentials, must 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.

The water right holder must file the notice of Proof of Appropriation of water (under which the certificate of water right is issued) when the permanent distribution system has been constructed, the well to be consolidated has been decommissioned and the quantity of water required by the project has been put to full beneficial use. The certificate will reflect the extent of the project perfected within the limitations of the superseding certificate. Elements of a proof inspection may include, as appropriate, the source(s), system instantaneous capacity, beneficial use(s), annual quantity, place of use, and satisfaction of provisions.

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. Furthermore, I find the change of water right as recommended will not be detrimental to existing rights.

Therefore, I ORDER approval of the recommended change under Change Application No. G2-24185 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:

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

OR

Deliver your appeal in person to:

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:

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

OR

Deliver your appeal in person to:

The 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:

Thomas Loranger
Department of Ecology
Southwest Regional Office
POB 47775
Olympia, WA 89584-7775

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 Lacey, Washington, this 3rd day of June 2010.

Thomas Loranger

Thomas Loranger, Section Manager
Water Resources Program
Southwest Region Office

BACKGROUND

On August 6, 2009 Robert Blackman, manager for Rainier View Water Company, Inc., (RVWC) filed an *Application for Change of a Water Right* to change the point of withdrawal of Water Right Certificate (WRC) G2-24185 to RVWC's Emerald Terrace well. The project is in Water Resources Inventory Areas (WRIA) 11 (Nisqually River Basin) and 12, Clover-Chambers Creeks Basin.

Description and Purpose of Proposed Change

The Golden Horseshoe Mobile Home Park is about two miles west of Graham in central Pierce County. The 86-unit Golden Horseshoe Mobile Home Park was constructed in the mid 1970's.Water use is authorized by two water rights; WRC G2-24185 and G2-29662. WRC G2-24185 holds all primary water rights associated with this project.

There are three wells drilled on the Golden Horseshoe Mobile Home Park property. Well 1 is associated with WRC G2-24185. Well 2 was not connected to the distribution system. Well 3 is associated with WRC G2-29662.

RVWC took over water service to this development in 2002 and operated it as a stand-alone system for several years. However, after repeated exceedences of coliform bacteria from the distribution system, RVWC extended service from the Southwood Water System to the mobile home park. The Golden Horseshoe wells were last used in 2005.

Attributes of GWC G2-24185 and Proposed Change

Table 1 *Summary of Proposed Changes to GWC G2-24185.*

Attributes	*Existing*	*Proposed*
Name	Herbert B. Hess	Rainier View Water Company
Priority Date Date of Application for Change	May 14, 1976	July 20, 2009
Instantaneous Quantity Gallons per minute (gpm)	35	35
Annual Quantity Acre-feet per year (ac-ft/yr)	38.6	18.34
Source	Well 1	Emerald Terrace Well (Tag # ABA-845)
Point of Diversion/Withdrawal	SE ¼ SE ¼ Section 18, T 18 N, R 4 E.	NW ¼ NW ¼ Section 20, T 18 N, R 4 E.
Purpose of Use	Community Domestic Supply	Multiple Domestic Supply
Period of Use	Continuous year round	Same
Place of Use	The W ½ of the SE ¼, Section 18, T.18N., R.4E.W.M., Pierce County Washington, EXCEPT the South 15 feet and the North 30 feet for roads, also EXCEPT the West 20 feet for county road. AND the W ½ SE ¼ SE ¼ of Section 18, T.18N., and R.4.E.W.M., Pierce County, Washington, EXCEPT the South 15 feet for road.	The Southwood Water System of Rainier View Water Company serves customers in T 19 N, R 4 E, Sections 32 and 33; T 18 N, R 3 E, Sections 1, 2, 3, 10, 11, 12, 13 14, 23, 24, and 25; T 18 N R 4 E, Sections 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, and 30.

Legal requirements for proposed change

Prior to authorizing the proposed consolidation of an exempt right, the following requirements must be met:

- **Public notice**

A public notice of the proposed change was published in the *Tacoma News Tribune* was advertised on October 19 and October 26, 2009 to include both exempt wells. No protests were received.

- **State Environmental Policy Act (SEPA)**

A SEPA determination evaluates if a proposed withdrawal will cause significant adverse environmental impacts. A SEPA threshold determination is required for:

  - Surface water applications for more than 1 cubic feet per second (cfs). For agricultural irrigation, the threshold increases to 50 cfs, if the project isn't receiving public subsidies.
  - Groundwater applications requesting more than 2,250 gpm.
  - Projects with several water right applications where the combined withdrawals meet the conditions listed above.
  - Projects subject to SEPA for other reasons (e.g., the need to obtain other permits that are not exempt from SEPA).
  - Applications that are part of several exempt actions that collectively trigger SEPA under WAC 197-11-305.

This application does not meet any of these conditions and it is categorically exempt from SEPA.

- **Water Resources Statutes and Case Law**

Before approving a groundwater change, RCW 90.44.100(2) requires Ecology to make the same findings as the original application:

  - Water must be available for appropriation.
  - The water must be for a beneficial use.
  - Existing rights must not be impaired as a result of the change.
  - The change must not be detrimental to the public interest.

The enlargement test requires Ecology to examine the history of water use and decide the extent and validity of the right. Because a certificate defines a maximum limit and not what has been perfected, the amount eligible for change may be less than what is on the certificate. Water rights not fully used for five consecutive years may be relinquished, unless there is sufficient cause (see Chapter 90.14.130 through 90.14.180 RCW and RCW 90.14.140). Water rights may also be lost through abandonment. Only a superior court has the authority to determine the extent and validity of a water right or claim.

INVESTIGATION

The following information was reviewed when evaluating this application:

- State Ground and Surface Water Codes, administrative rules, and policies.
- Water right certificates, permits, claims, and applications on record with the Department of Ecology.
- Water well reports recorded in the Department of Ecology's Well Log Image System.
- Comprehensive Water System Plan for Rainier View Water Company, October 1995.
- State DOH Sentry Database.
- Topographic and local area maps.
- Technical Memorandum dated February 10, 2010 by Tammy Hall, Licensed Hydrogeologist, with Ecology's Water Resources Program at Southwest Regional Office.
- Notes from a site visit on August 12, 2009 by Tammy Hall.
- Undated Technical memorandum from Jill Van Hulle (Pacific Groundwater Group) to Tammy Hall (Ecology).
- E-mail correspondence from Irene Murakami (RVWC) and Jill Van Hulle (Pacific Groundwater Group).

History of certificate

WRC G2-24185 was issued to Herbert B. Hess on July 11, 1980. The certificate allowed withdrawal of 35 gpm and 38.6 ac-ft from a well 8-inches in diameter and roughly 200 feet deep. The purpose of use was community domestic supply.

History of water use-water available for transfer

The Golden Horseshoe water system served 86 units and irrigated about one acre of common area.

Well 1 is the primary source of water for the mobile home park. Well 2 is not a DOH approved source and not connected to the distribution system. DOH lists Well 3 as being inactive. Water use from any of these wells was not metered.

The original Report of Examination, issued in February 1977 states that the annual quantity of 38.6 ac-ft was based on full build-out of 138 units and with average daily use of 250 gallons per day for each unit.

The individual lots are very small, ranging from 0.1 to 0.16 acres in size. Because the residential structure occupies most of the foot-print of each lot, outdoor use associated with each unit, if any, is likely very small. Using DOH guidelines for water demand (DOH, 2001), average water use for sewered trailer parks is about 50 gallons per day, for each resident.

DOH's Sentry database, lists the residential population at Golden Horseshoe to be around 300 people, which is an average of 3.5 people per unit. Using about 50 gallons a day for 300 people, daily demand would be 15,000 gallons. Annual use would be close to 17 ac-ft.

Irrigation needs for one acre of pasture/turf is 1.3 ac-ft per year or 16.6 inches per acre for the irrigation season (Natural Resources Conservation Services, 2005).

Both residential and irrigation use is about 18.34 ac-ft, which is available for transfer to Emerald Terrace well.

Proposed use

This change proposes to change the point of withdrawal from Golden Horseshoe Mobile Home Park's on-site Well 1 to Emerald Terrace Well, less than one mile away. Emerald Terrace Well is part of the Southwood Water System. The purpose of use will be "multiple domestic supply." RVWC also would like to change the place of use to reflect their approved service area for the Southwood Water System.

On June 11, 2008 the King County Superior Court declared definitions of *Municipal water supplier*" and *municipal water supply purpose*" in the 2003 Municipal Water Law unconstitutional. Ecology has appealed this decision, but a final determination by the Supreme Court may not be issued for some time. Because RVWC is no longer considered a municipal water supplier, the purpose of use of this water right is considered "multiple domestic," pending the final outcome of the legislation. If the law is reinstated on appeal, this water right will automatically be for municipal water supply by operation of law. At that time, RVWC can request Ecology to conform this water right document and have "community domestic" changed to "municipal water supply".

Other rights appurtenant to the Place of Use

RVWC is privately-owned and comprised of 29 separate water systems. Twenty-four of these systems have fewer than 150 connections. The five remaining systems serve more than 500 connections (Comprehensive Water System Plan for Rainier View Water Company, October, 1995). RVWC also purchases water from the City of Tacoma to help meet demand. This water is provided by way of an inter-tie.

The Emerald Terrace Well is in the east part of Southwood Water System service area. The service area for the system encompasses about 21 square miles of rural area with scattered residential development. Southwood operates as a single system and water is distributed throughout the service area through inter-ties. The system pumps from 21 wells.

Water right certificates and permits pertaining to RVWC's Southwood Water System are summarized in Attachment 2.

See Attachment #2.

Hydrologic/hydrogeologic evaluation

Geologic setting

Most of central Pierce County is a poorly drained upland drift plain of moderate relief. Elevations range from about 200 feet to 900 feet above mean sea level (msl) and gradually decrease to the northwest. This orientation is due largely to erosion and deposition.

The geology and landscape in central Pierce County formed as a product of at least six glacial advances and retreats taking place over the past 2.5 million years. These events resulted in a complex distribution of both

glacial and non-glacial sediments. The glacial deposits are coarser grained and permeable, serving as the area's aquifers. The non-glacial deposits are finer grained and serve as aquitards and impede groundwater flow.

Brown and Caldwell (1985) defined the area's subsurface in terms of hydrostratigraphic layers. A hydrostratigraphic layer is a group of sediments deposited at about the same time and under similar geologic conditions. Hydrostratigraphic layers have the same physical and hydrologic conditions. Brown and Caldwell (1985) identified glacial layers A, C, and E as aquifers and interglacial layers B, D, and F as aquitards.

Layer A is the unit exposed on the ground surface. This unit consists mostly of Vashon drift but also includes more recent surficial deposits and alluvium. Vashon drift is a sequence of glacial materials that include recessional outwash, glacial till, and advance outwash deposits. In the Clover/Chambers watershed, Layer A is typically 100 to 200 feet thick. Shallow wells in the area tap water bearing zones within layer A.

Layer B serves as the principal aquitard, separating the upper aquifers in Layer A from the aquifers below. The unit consists of mostly clay, silt, and fine sand. Absent in part of the central portion of the basin, the thickness of Layer B in the western portion ranges from 50 to 10 feet. Layer B is analagous to the Kitsap Formation mapped by Walters and Kimmel (1968).

Layer C is a sequence of glacial drift that supports many of the area's deeper wells. Deposits within Layer C are mostly stratified sand and gravel with thin, discontinuous layers of silt and clay. Lenses of till are scattered throughout the sequence. Layer C is typically 50 to 180 feet thick.

Recharge to all aquifers is by precipitation and vertical leakage. Because vertical groundwater flow is generally downward, all aquifers are hydraulically connected and can be considered the same source of public groundwater.

Site conditions

Both Golden Horseshoe Mobile Home Park Well 1 and Emerald Terrace Well are situated on fairly-level property. The wells are roughly 1,500 feet apart, near the WRIA 11-WRIA 12 boundary.

See Attachment #1

Brown and Caldwell (1985) mapped the area surrounding the two wells as Steilacoom Gravel, a type of recessional outwash. Steilacoom Gravel is a coarse deposit with interstitial sand deposited by high-energy streams and rivers that rapidly drained a large proglacial lake in the Puyallup River Valley.

The well report for Emerald Terrace Well describes a sequence of gravel and silty-sand until about 250 ft below ground surface (bgs). A layer of clay is found from about 248 to 258 ft bgs. This well is completed in a gravel and sand, within Layer C. Under GWC G2-24960, Emerald Terrace Well is authorized to pump 75 gpm, although it is equipped to produce 90 gpm, although production has declined, probably due to a clogged screen from high levels of dissolved minerals in the groundwater.

RVWC intends to rehabilitate Well 1 and hopes to increase production to 120 gpm. Ecology will not issue a superseding document until this happens. Once rehabilitation is completed, a superseding document will be issued reflecting the amount the well can produce, not to exceed 120 gpm.

The Golden Horseshoe Mobile Home Park Well 1 is 103 ft deep. The well report describes drilling through gravel, sand, and boulders for the entire depth of the well. This well is completed in Layer A. Golden Horseshoe Well 1 is equipped to produce 30 gpm.

Golden Horseshoe Mobile Home Park Well 1 and Emerald Terrace Well are completed in the same body of public groundwater in accordance with RCW 90.44.100.

The construction details of Emerald Terrace Well and Golden Horseshoe Mobile Home Park Well 1 are summarized in Table 2.

Table 2. *Well construction details for Golden Horseshoe Mobile Home Park Well and Emerald Terrace Well*

	Golden Horseshoe Mobile Home Park Well 1	Emerald Terrace Well
Date Drilled	August 17, 1976	December 28, 1992
Well head elevation (ft above mean sea level, msl)	480	590
Well diameter (inches, in)	8	8
Completed depth (ft below ground surface, bgs)	103	302
Perforations or screens (ft bgs)	Perforations 52-98	Perforations 267-275
Static water level (ft bgs)	70	40
Date measured	August 17, 1976	December 21, 1992
Pumping capacity (gpm)	30	90

Impairment considerations

Effects on existing water users

Water right changes have greatest potential to affect wells completed in the same aquifer near the new point of withdrawal.

WAC 173-150-060 specifies only impacts to "qualifying withdrawal facilities" fit the legal definition of impairment. Qualifying withdrawal facilities are wells completed in the same aquifer as the new point of withdrawal. The well must span the aquifer's entire saturated thickness and the pump elevation must allow variation in seasonal water levels. The definition allows wells to be affected but the impacts may not be considered impairment.

This change allows water rights issued for domestic supply to Golden Horseshoe Mobile Home Park to be transferred RWWC's Emerald Terrace Well, about 1,500 feet away. RVWC will pump 18.34 ac-ft a year more from this well. Because both wells are close to one another, neighboring water users should not be affected.

Ecology's databases were queried to determine the number of water right certificates, permits, claims, and water wells from one mile to 1 ½ miles from Emerald Terrace Well. The size of search area was selected so records retrieval was easier. Effects of pumping, if any, will be restricted to a small area since both wells are fairly close together. Review of the information shows all certificates were issued for domestic supply and wells are completed in Layer A, although it is unknown if any span the saturated thickness of the aquifer. The well nearest to the Emerald Terrace Well is 1,300 ft away. Table 3 summarizes details of water right certificates in this search area.

Table 3 *Summary of groundwater certificates within a search radius of one to 1 ½ miles from Emerald Terrace Well.*

WRC #	*Name*	*Priority date*	*gpm*	*ac-ft/yr*	*Distance from Emerald Terrace Well (ft)*	*Well depth (ft)*	*Water bearing unit*
G2-25771	Bob Williams	1/2/1981	26.3	4	1,300	120	Layer A
G2-28080	Andy Panagiotou	3/19/1991	36	4	3,000	92	Layer A
G2-26832	Gary Birka	11/26/1985	31	4.5	3,500	41	Layer A
G2-25837	Hal J. Madsen	10/14/1979	40	9	3,800	76	Layer A
G224873	Horizon Investments Inc	4/27/1998	30	5	4,000	93	Layer A

Following is a summary of surface water certificates, permits, claims, and well reports in this same area:

- Three surface water certificates for fire suppression and domestic supply allows the diversion of 6.5 cubic feet per second (cfs) from unnamed springs.
- Sixty-four groundwater claims are registered for domestic supply, irrigation, and stockwater. The validity and location of these claims is not known.
- Two-hundred fifty-three well reports are on file in Ecology's database. Two-hundred wells are 100 ft deep or less. Fifty are between 105 and 200 ft deep. It is reasonable to assume most if not all are completed in Layer A.

Effects to surface water

The Golden Horseshoe Mobile Home Park Well 1 and Emerald Terrace Well are on a fairly level glacial outwash plain. Because the surface soils are permeable, precipitation infiltrates rapidly to the shallow water table and runoff rarely drains to surface streams. Muck Creek, located in WRIA 11, about ¾ mile south of Emerald Terrace Well. An unnamed drainage, a tributary to Muck Creek, is about ½ mile east.

Chapter 173-511 WAC, the Instream Resources Protection Program (IRPP) for the Nisqually River Basin (WRIA11), closes Muck Creek to consumptive groundwater withdrawals that could impair surface water flows in the creek.

This change is not expected to harm flows in Muck Creek since both wells are near one another. Emerald Terrace Well draws water from a deeper aquifer not directly connected with surface water.

Public Interest considerations

This water right change reduces the number of domestic supply wells in the area by combining a smaller Group A water system to a much larger Group A system. Further, since Golden Horseshoe's wells were susceptible to bacterial contamination, approving this change will ensure a safe drinking water supply for people once served by the on-site wells. Combining these systems by transferring perfected water rights to water purveyors like RVWC is encouraged.

Emerald Terrace Well is operated by RVWC, a water purveyor subject to metering and reporting, and water use efficiency and conservation requirements. Further, Emerald Terrace Well draws from a deeper aquifer, not directly connected with surface water.

Consideration of protests and comments

The Department of Ecology did not receive any protests or comments in response to the public notice that appeared in the *Tacoma News Tribune*.

CONCLUSIONS

The following conclusions are in accordance with Chapters 90.03 and 90.44 RCW:

- Golden Horseshoe Mobile Home Park Well 1 and Emerald Terrace Well are completed in the same body of public groundwater.
- Approving this change is consistent with the Coordinated Water System Plan, WRIA 11 and 12 watershed management planning, and with local land and water use plans.
- Multiple domestic supply is a beneficial use.
- Approving this change will not impair existing rights.
- Approving this change is not detrimental to the public welfare.

RECOMMENDATIONS

Based on the investigation and conclusions, I recommend approving this change. I also recommend that a superseding certificate be issued for the amount listed below. This authorization is subject to the limits and 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:

- 30 gpm.
- 18.34 ac-ft per year.
- Multiple domestic supply.

Point of Withdrawal

NW¼, NW ¼, Section 20, Township 18 North, Range 4 E.W.M.

Place of Use

As described on Page 1 of this Report of Examination.

Report by: _____ 6/2/10

Tammy Hall, L. HG
Water Resources Program

Date

References:

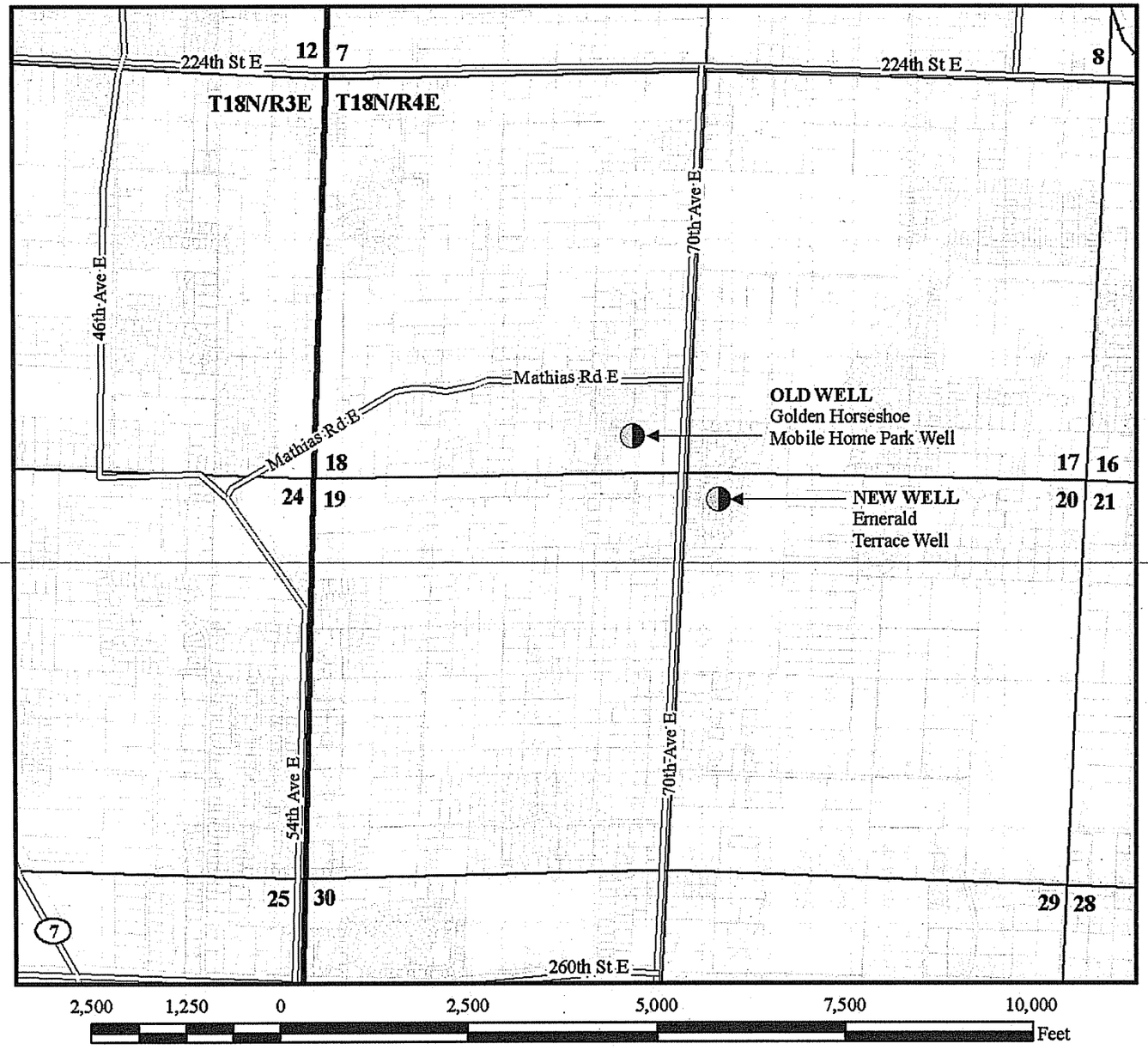
Brown and Caldwell, Sweet Edwards & Associates, Robinson & Noble, *Clover/Chambers Creek Geohydrologic Study for Tacoma-Pierce County Health Department-Final Report,* July 1985.

Crandell, D.R.; Mulllineaux, D.R.; and Waldron, H; "Pleistocene Sequence in Southeastern Part of the Puget Sound Lowland, Washington", American Journal of Science V. 256 (1958), 384-397.

Walters, Kenneth and Kimmel, Grant E., *Ground-Water Occurrence and Stratigraphy of Unconsolidated Deposits, Central Pierce County, Washington,* US Geological Survey Water Supply Bulletin No. 22, 1968.

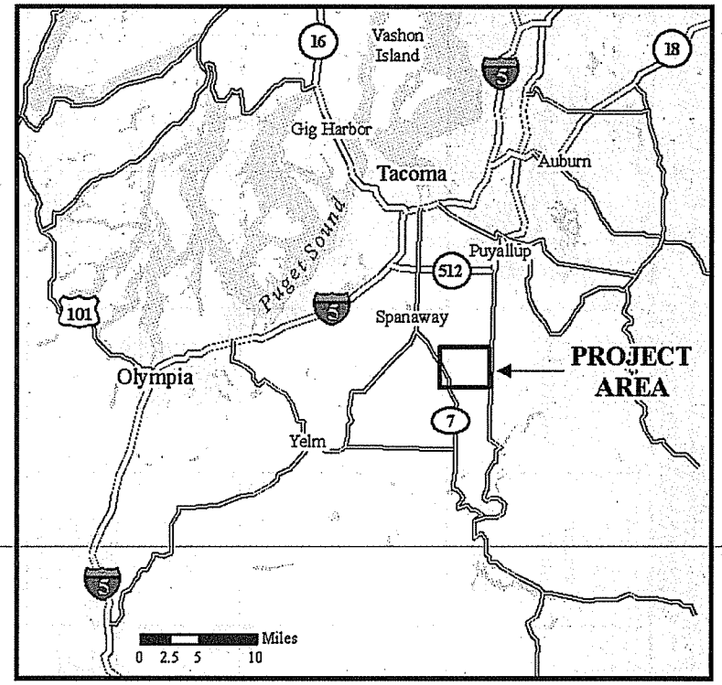
DOH Water System Design Manual 2001.

Natural Resources Conservation Services, 2005, *Washington State Irrigation Guide*.



Rainier View Water Company
Water Right Number G2-24185
Sec. 20 T 18 N, R 4 E.W.M.
WRIA 11 - Pierce County

DEPARTMENT OF ECOLOGY
State of Washington



Legend

- WELL LOCATIONS (POW)
- PIERCE CO. PARCELS
- HIGHWAYS
- ROADS
- SECTION LINES
- TOWNSHIP LINES
- CITIES

Comments:

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

Map Created 1/27/2010 aln

ATTACHMENT 1

Rainier View Water System Self-Assessment Southwood Water System								
Source Name	Permit, Cert No.	Name of Rightholder	Priority Date	Additive or Non-Additive	Existing System Capacity			
					Max Inst. Flow Rate (Qi) gpm Additive	Max Inst. Flow Rate (Qi) gpm Non-Additive	Max Annual Volume (Qa) Additive	Max Annual Volume (Qa) Non-Additive
Southwood 1 Bethel Ridge Southwood 3 Southwood 4 Sally Hubert Spiritwood	G2-25490 P	Rainier View Water	2/14/1980	A	2,500		616.00	
Beverly Park A Beverly Park B Beverly Park C	G2-26359 C	Rainier View Water	6/3/83	A	1513		505.75	
Shining Mtn 1 and 2	3763	Bethel School District	4/22/1952	A	*452*		80.00	
Shining Mtn 3	G2-25430	Bethel School District	11/30/1979	A/NA	800		87.50	80
Sally Hubert	G2-26610	Rainier View Water	11/11/84	A/NA	200		0.00	200 (NA)
	G2-24904		6/2/1978	A	65		7.70	
	G2-29292		9/22/1995	A/NA	0	75	6.00	
Lauradel 1	G2-00591 C	Rainier View Water	6/3/70	A	85		27.00	
Lauradel 2	G2-25517		3/13/1980	A	60		96.00	
Lauradel 1 Lauradel 2	7089-A		5/12/1969	A	200		100.00	
Quiet Village 1	6306-A	Rainier View Water	3/27/67	A	50		79.00	
Quiet Village 2	7636-A	Rainier View Water	9/2/70	A	80			79.00
Fir Meadows A	G2-23719 C	Fir Meadow Water Co	2/19/76	A	100		0.00	138
Fir Meadows B Fir Meadows C	G2-00799 C	Fir Meadow Water Co	11/5/70 1/5/1970	A	250		138.00	0
Barna	G2-21393 C	Richardson Water Co.	8/17/1973	A	15		4.00	
Mory Glen A	G2-26399 C	Richardson Water Co.	8/4/83	A	250		134.00	
Mory Glen B	G2-24864 C	Richardson Water Co.	4/24/78	A	155		125.00	
Oak Hill	G2-25022	Rainier View Water	8/30/1978	A	150		59.20	
Thrift 1*	G2-25906 C	Neil Richardson	5/18/81	A/NA	270		94.00	218 (NA)
Thrift 2*	G2-28204	Rainier View Water	6/28/91	A	250		200.00	
Country Park*	G2-26792 P	I. Pratt	9/17/85	A	125		32.50	
Emerald Terrace Fir Meadow A Fir Meadow B	G2-24960 P	Rainier View Water *(formerly Indian Springs)*	7/19/1978	A	600		407.36	
Silver Creek Tannenbaum 2 Tannenbaum 3 Tannenbaum 1 Martin Behm 2	G2-26423 P	Rainier View Water	10/5/1983	A/NA	2,940	60	2018.80	96
Behm 3	G2-25831	Richardson Water Co.	3/11/1981	A	60		65.00	
185th	G2-00631	Person and Person Homes	5/4/1971	A	50		6.75	
Chateau Woods 1 Chateau Woods 2	G2-27454	R. Harpel c/o Chateau Woods	11/21/1988	A	160		36.00	
				Totals:	**11,380**		**4,926**	**393**