
Beneficial Use Analysis Water Right Certificate G2-26862GWRIS

FINAL REPORT

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List of Acronyms

AF:	Acre-Feet
ACQ:	Annual Consumptive Quantity
CIR:	Crop Irrigation Requirement
Cities:	The Cities of Olympia, Lacey, and Yelm
CFO:	Certificate of Final Order
cfs:	Cubic Feet Per Second
Ea:	Application Efficiency
POD:	Point of Diversion
STWR:	State Trust Water Rights
WDOE:	Washington Department of Ecology
WestWater:	WestWater Research, LLC
WIG:	Washington Irrigation Guide

Purpose and Scope

This report summarizes the due diligence conducted by WestWater Research for Water Right Certificate No. G2-26862GWRIS, held by Ron Smith of Yelm, Washington. Additionally this report provides estimates for the historic and consumptive use of the selected water right. The Cities of Olympia, Lacey, and Yelm (Cities) are proposing to purchase and formally cancel the water right as mitigation for modeled surface flow effects in the Deschutes River (Figure 1) associated with water right applications.

**Figure 1: The Cities of Olympia, Lacey and Yelm
and the Deschutes Basin within the State of Washington**



The scope of this report includes:

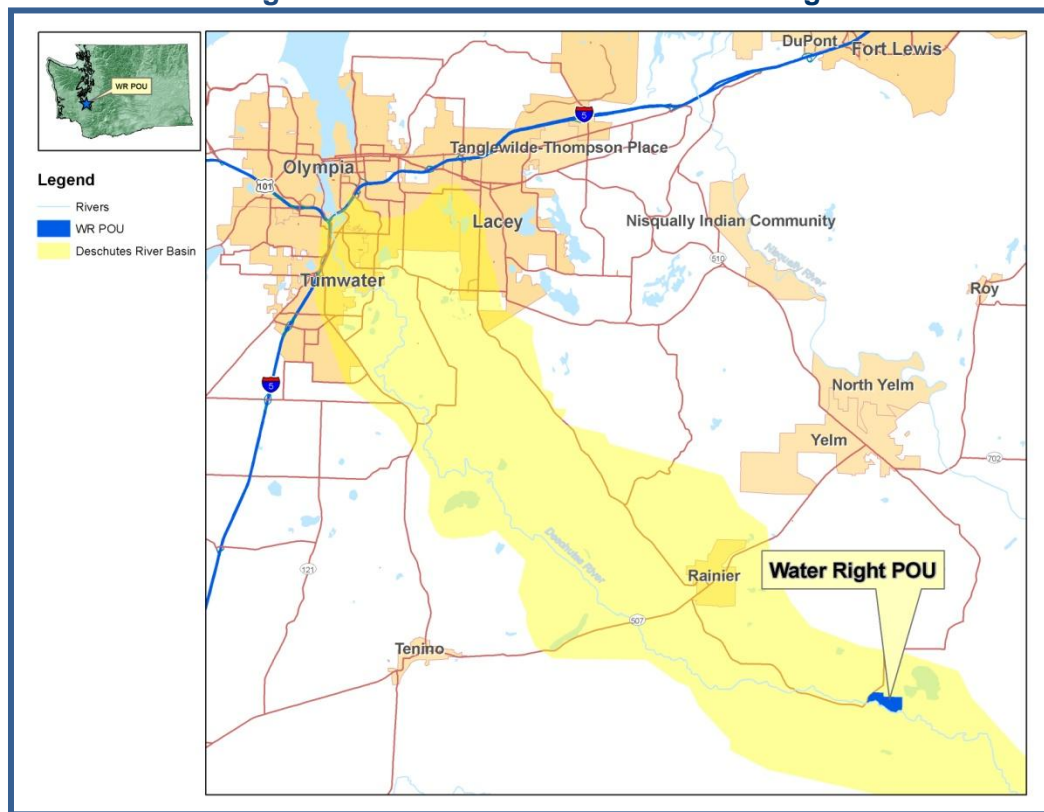
- A summary of the water right and administrative history.
- A summary of the historic and beneficial use of the water right.
- Supporting evidence and documents of historical use.
- An analysis and estimate of the Smith water right consumptive use based on historical irrigation use.



Water Right Description

The subject water right is a groundwater right certificate held by Ron Smith. Mr. Smith currently resides on the property. The Place of Use (POU) for the water right is located in the Upper Deschutes Basin directly adjacent to the Deschutes River (Figure 2). The point of diversion is from an unnamed artesian spring that flows continuously throughout the year and directly into the Deschutes River. Appendix A provides copies of the water right certificate and supporting documents.

Figure 2: Location of the Smith Water Right



Water Right Certificate No. G2-26862GWRIS Summary

A summary of the Smith water right is provided below.

Holder's Name:	Ron Smith
Certificate No.:	G2-26862GWRIS
Source:	Unnamed Spring
Use:	Irrigation of 135 Acres
Period of Use:	May 1 to October 1
Quantity:	300 gallons per minute, 170 acre-feet per year
Priority Date:	February 18, 1986
Point of Diversion:	800 feet South of the Northwest corner of Section 29, T. 16 N., Range 2 East W.M.
Place of Use:	The S ½ NW ¼ and that portion of the SW ¼ of Section 29, T. 16 N., R. 2 E.W.M., lying North of the Deschutes River, and those portions of the S ½ NE ¼ and the South 500 feet of the N ½ NE ¼ of Section 30, T. 16 N., R. 2 E.W.M., lying North of the Deschutes River and East of the Vail Road.

Administrative History of the Smith Water Right

- Ron Smith of Ron Smith Farms submitted an application to appropriate water for his property on February 18, 1986, for the purpose of irrigating 200 acres of farmland in the Deschutes Basin (WRIA 13).
- From March 20th to April 3rd, 1986, public notice was filed once per week for three weeks in the Nisqually Valley News.
- On two separate occasions, July 8th and October 20th, 1986, field examinations of Ron Smith's irrigation system were conducted by Washington Department of Ecology (WDOE) staff. During these field visits, a well of 4 feet in diameter and approximately 10 to 15 feet deep (constructed with a backhoe) was observed. A 30 hp electric motor powered a centrifugal pump that delivered water through a 6 inch mainline to 3 and 4 inch diameter pipe with "at least 40 rainbird-type sprinkler heads". It was also noted during these field visits that the acreage currently being irrigated was 135 acres and not the 200 acres originally requested under the application. In accordance with Chapter 90.66 RCW, it was recommended that a permit be issued under the Family Farm Act.
- On December 26, 1986, a permit was issued to Ron Smith for a groundwater right (artesian spring/infiltration gallery) for the diversion of 270 acre-feet per year (AF/year) with a maximum rate of 1,000 gallons per minute (gpm) for the irrigation of 135 acres under the Family Farm Act. The permit granted Mr. Smith until December 1, 1987, to complete the development of the project and have full operational use of the water.



- A letter was sent to Ecology on October 20, 1987, requesting an extension to complete revisions of the “well” as it was not operating properly. An extension was granted until December 1, 1988.
- On January 6, 1989, a Proof to Appropriate Water form was completed by Ron Smith. Notes written after the document was submitted to WDOE (1/18/89 and 1/25/89) state that conversations with the farm hand, Patrick Johnson, conclude that the capacity of the pump could produce no more than 300 gpm rather than the 1,000 gpm as originally requested. Further, the WDOE noted that the Qa should also be reduced to 170 AF/year or 1 ¼ AF/acre, due to the pumping capacity limitations.
- The certificate was issued to Ron Smith on January 31, 1989, in the amount of 170 AF for the irrigation of 135 acres with a maximum rate of 300 gpm.

Evidence of Historical Use

Historical water use on the property was based on multiple discussions with Ron Smith, through an affidavit provided by Ron Smith dated September 29, 2009, a revision to clarify his affidavit provided on January 20, 2010, a declaration from his current farmhand, Armando Morales, dated September 14, 2009, and a declaration from his next door neighbor, Gary Edwards, dated September 30, 2009 (Appendix B). Below is a discussion of Mr. Smith’s irrigation use and practices from 1986 to present.

Mr. Smith’s grandfather purchased a 200-acre portion of the farm in 1908 after arriving from North Dakota. Shortly upon arriving, Mr. Smith’s grandfather purchased an adjacent 100 acres. The farm consists of eight tax lots with an old farm house, barn, chicken coops and 300 +/- acres. The family operated the farm raising shorthorn and Holstein milking cows.

Mr. Smith was born in 1927 on the farm and helped his father on the farm as a young boy by raising chickens and lambs. Mr. Smith took over the farm when his father passed away in 1965. Mr. Smith maintained the cows but focused on increasing his egg and lamb business. At the peak of the business, the farm contained 75,000 laying hens. In the mid 1990s, the egg market dropped and Mr. Smith was forced to sell the chickens.

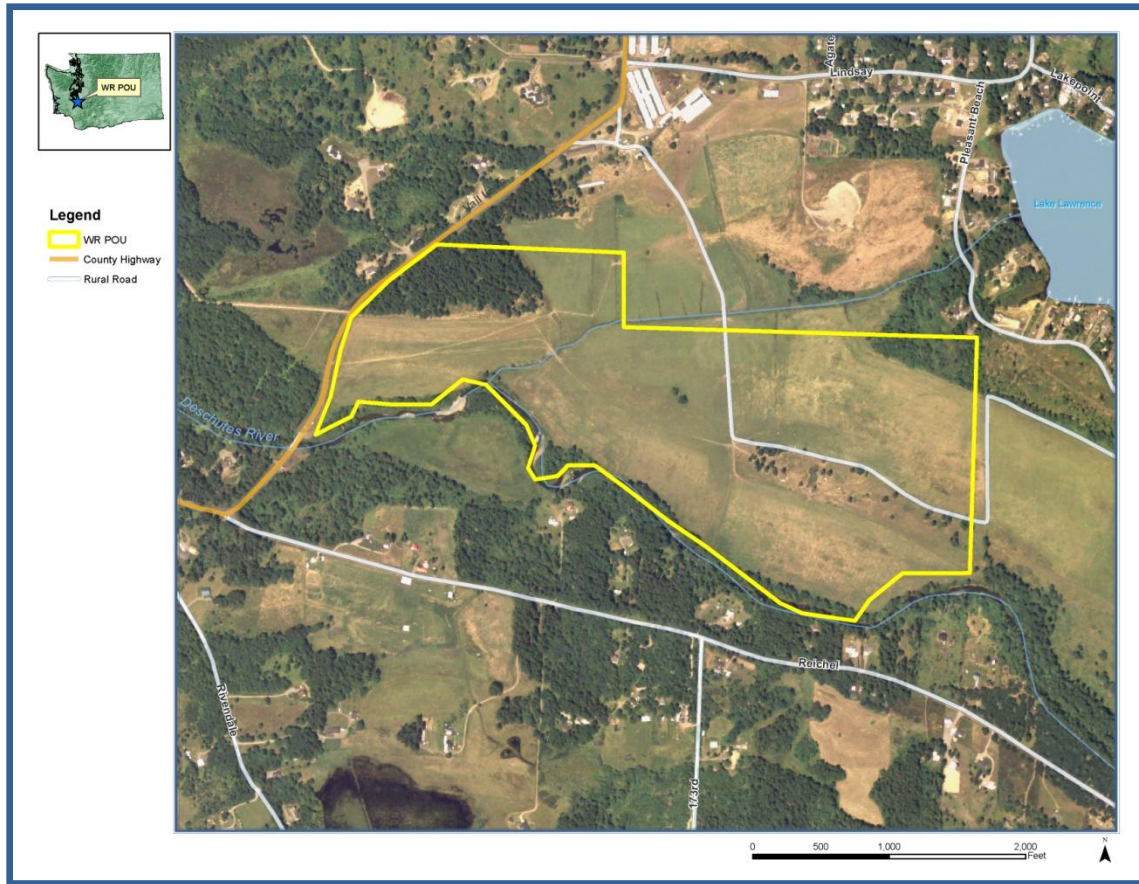
In 1986, Mr. Smith applied for a water right to improve his feeding capacity to support the increasing number of lambs and cows on the property. As described above, he was granted a water right permit for 1,000 gpm and 270 AF for the irrigation of 135 acres. Mr. Smith has several artesian springs that surface on the hill above his farm pasture. The springs flow into an outflow of Lawrence Lake and drain to the Deschutes River on the Southwest portion of Mr. Smith’s POU (Figure 3).

Mr. Smith could not afford a pump that could produce a maximum flow rate of 1,000 gpm. Instead, he purchased a 300 gpm pump with an electric motor and utilized a backhoe to dig a well/infiltration gallery adjacent to the main spring at the source point (Figure 4, Photo A). A water right certificate was issued to Mr. Smith in 1989. Because of the reduction in his pump



capacity from 1,000 gpm to 300 gpm, Mr. Smith's annual duty (Qa) was reduced from 270 AF/year to 170 AF/year.¹

Figure 3: Place of Use for Smith Water Right



Mr. Smith utilized handlines connected to a six-inch aluminum mainline from the fixed 30 horsepower pump and motor. The three and four-inch lateral handlines attached to the mainline were used to irrigate the ground utilizing up to 72 five-gallon per minute rainbird-type sprinklers. Pumping from the infiltration gallery became a problem as the pump and mainline would get continuously clogged with debris upwelling from the artesian spring. In an attempt to resolve the problem, Mr. Smith's farmhand, John "Hutch" Hutchison purchased a diesel pump

¹ Note: a 300 gpm pump can divert 202.89 AF/year within the irrigation season from May 1st to October 1st. The crop irrigation requirement (CIR) for pasture in the Olympia area based on the Washington Irrigation Guide (WIG) is 15.94 inches/acre for pasture or 179.33 AF/year for Mr. Smith's 135 irrigated pasture acres.



Smith Farms Water Use Timeline

1986	Application for Certificate #G2-26862 submitted to WDOE
1989	Certificate issued for 300 gpm and 170 AF/yr
1997	Use of the electric motor ceased due to mainline clogging with debris
1998	Flood irrigation began and diesel pump purchased to irrigate directly from the spring with handlines
2002	Pump broke and only minimal flood irrigation for 2002 and 2003 seasons
2005	Power meter removed at the request of Mr. Smith
2006	Mr. Smith's long-time farmhand, "Hutch" Hutchison, dies in the Summer
2007	No irrigation occurred
2008	Purchased two big guns and pumps and hired Armando Morales to irrigate

before the 1998 irrigation season. Mr. Smith's farmhand irrigated the property using surface (flood) irrigation on portions of the property and irrigated with handlines in other locations, diverting water directly from the spring downstream of the old infiltration gallery and original Point of Withdrawal (POW). Handlines were moved daily during the irrigation season with the laterals spaced 30 feet apart. Mr. Smith cannot remember how long it took his farmhands to cover the entire property utilizing handlines and up to 72 sprinkler heads and supplemented with flood irrigation. On average, irrigation began in early May to early June and continued through September, depending on seasonal weather patterns.

In 2002 and 2003, the pump was not working and Hutch was only able to irrigate a small portion of the acreage through flood irrigation. An attempt was made to divert more water to cover more acreage, but the time required and topography of the POU did not allow for efficient irrigation.

In 2005, Mr. Smith realized that he was being charged a base rate to have a meter in operation on the property. Mr. Smith requested that the Puget Sound Energy meter (Meter # Z072866864) be removed as he had not been using it since he began the diesel pump and flood irrigation operation in 1998.

In 2006, Mr. Smith's main farmhand, Hutch, passed away unexpectedly. Mr. Smith did not have anyone to assist him with moving handlines. Irrigation stopped on the property for the remainder of the 2006 irrigation season and throughout the 2007 irrigation season, with the exception of some flood irrigation. In 2008, Mr. Smith hired a new farmhand, Armando Morales, and purchased a reel and big gun and a gas-power motor to pump directly from the artesian spring directly down-gradient from the infiltration gallery. This strategy made it easier to irrigate with less manual labor.

Mr. Smith's new farmhand began using the new *Honda GX270* gas motor and *Monarch* pump with 220 gpm capacity, and a Smith Irrigation Equipment *Water Reel* reel line (model no. ST200L/580), which carries 580 feet of two-inch diameter hose. The two-inch line was attached to a *Komet TwinMax* big gun sprinkler with a one-inch nozzle (Figure 4, B, C, and D). Mr. Smith also used an additional *John Deere* diesel motor, a 256 gpm *NACD* pump, an *OCMIS* reel with 1,148 feet of three-inch line, and big gun with two-inch nozzle (Figure 5, A, B, C, D).

The *NACD* pump pulls water from the artesian spring using a six-inch suction hose and delivers water to the *OCMIS* water reel via a flexible five-

inch diameter hose. The *Monarch* pump pulls water from the artesian spring with a three-inch hose and delivers water to the *Water Reel* via a three-inch diameter flexible hose.

The larger *OCMIS* reel takes approximately 12 hours to complete one set and is pivoted each day, irrigating continuously for 24 hours a day during the height of the irrigation season. The smaller big gun and reel take around 8 hours to complete a set and is pivoted once per day. The combination of these two irrigation systems allows Mr. Smith to cover his entire 135-acre POU in seven days (Figure 6, A and B).

Figure 4: Photographs of the Smith Property and the Smaller Irrigation System

Photo A
Infiltration Gallery and old electric pump



Photo B
Honda GX 270 motor with 220gpm
Monarch pump



Photo C
Smith irrigation *Water Reel* with 2
inch diameter hose



Photo D
Komet TwinMax Big Gun Sprinkler

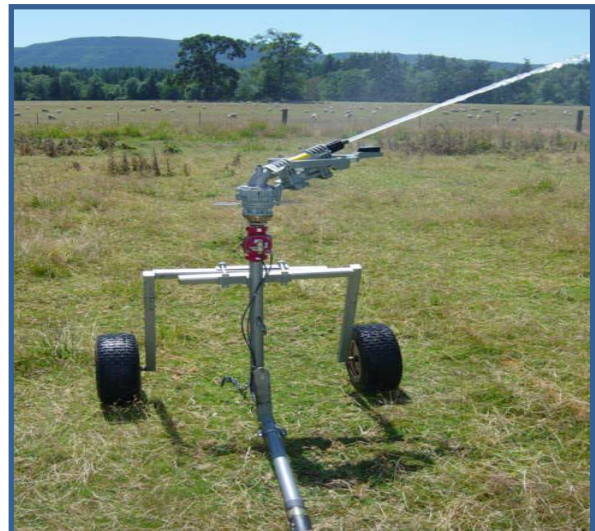


Figure 5: Photographs of the Smith Property and the Larger Irrigation System

Photo A
John Deere diesel motor and NACD
Pump with suction hose and delivery to
Reel



Photo B
Close-up of the Pump limitations



Photo C
OCMIS Water Reel with 1,148 feet of
three-inch hose



Photo D
Big Gun with two-inch nozzle irrigating
NE portion of the 135 acre POU



**Figure 6: Photographs of Irrigation Equipment in Operation During Field Visits
on July 7th and July 22nd, 2009**

Photo A

Big Gun on the NE Field irrigating pasture



Photo B

Big Gun on the central Field irrigating pasture
with sheep herd



Photo C

Fresh-cut bails from 1st cutting at the end
of June



Photo C

Spring flowing into the Deschutes River



Water Use and Consumptive Use Analysis

Based on discussions with WDOE staff, any water rights being permanently donated to the Trust Water Rights program or formally cancelled for purposes of mitigation shall be calculated based on the consumptive quantity of the water rights over the last five years of use. The Annual Consumptive Quantity Test will be applied for this report because Mr. Smith is selling his water right to the Cities for mitigation purposes. Annual Consumptive Quantity (ACQ) is defined as the estimated or actual annual amount of water diverted pursuant to the water right, reduced by the estimated annual amount of return flows, averaged over the two years of greatest use within the most recent five-year period of continuous beneficial use of the water right.²

In the absence of detailed diversion or power records, WDOE has relied on consumption calculations based on estimated crop water requirements.³ Mr. Smith has not used the electric pump since 1997 and Puget Sound Energy (PSE) removed the meter in 2005. According to conversations with PSE representatives on September 15th, 2009, (Customer Service Representatives Vonnice and Pat) and on September 16th (customer Service Representative Carrie at extension 4067), no meter records exist for meter #Z072866864. In addition, PSE does not have any power records previous to December 9, 2005 for any of Mr. Smith's eight other meters currently in use.

WestWater staff also collected and reviewed Mr. Smith's fuel records from CHS, Inc. - Chehalis for the period between 2000 and 2009. Prior to 2000, Mr. Smith acquired his fuel from a company that is no longer in business. Based on our review, the data is inconclusive as the fuel purchased was used for the irrigation pumps as well as for all other farm equipment owned by Mr. Smith. While inconclusive, the records do show that fuel was purchased in volumes necessary to run the gas/diesel powered pumps. However, there is no feasible way of separating out the amount of fuel use for operating the pumps from that used to operate other farm machinery. Further, the diesel pump used on the property from 1998-2006 was sold and the make, model, pump size, capacity and average consumption rate is unknown.

² RCW 90.03.380

³ Water Resources Program Guidance Memo (GUID-1210): Determining Irrigation Efficiency and Consumptive Use. Draft Guidelines. Undated. Washington Department of Ecology.



When power records are absent, WDOE has calculated consumptive use based on the following factors⁴:

- Consumptive plant use based on crop irrigation requirements.
- Losses from evaporation.
- Losses from deep percolation and surface runoff.

Crop irrigation requirements (CIR) provided the Washington Irrigation Guide (WIG) and cropping acreage are used in this report to estimate plant consumptive use. In addition, consumptive losses from evaporation are estimated to derive the total consumptive quantity available for transfer.

Crop Irrigation and On-Farm Diversion Requirement

The first step in determining consumptive use for the Smith water right is to determine the on-farm diversion requirements needed to fully satisfy crop irrigation needs. This quantity is then compared to available water supplies in the unnamed springs that supply Mr. Smith with his irrigation source. The following section provides a summary of the diversion and consumptive use calculations for the Smith water right.

- The estimated CIR for pasture in the Smith water right is 15.94 inches from May through September annually.⁵ Average monthly CIR used in this analysis is presented in Table 1 below.

Table 1: Monthly Crop Irrigation Requirement for Pasture (May-Sept)

Month	CIR (inches/acre)
May	2.36
June	3.35
July	4.97
August	3.45
September	1.81
Season	15.94

Source: Washington Irrigation Guide – Olympia Section

⁴ Water Resources Program Guidance Memo (GUID-1210): Determining Irrigation Efficiency and Consumptive Use. Draft Guidelines. Undated. Washington Department of Ecology.

⁵ Olympia section of the Washington Irrigation Guide

- The total irrigated acreage served by the Smith water right is 135 acres. The maximum allowed diversion is 300 gpm from May 1st through October 1st.
- On farm irrigation efficiency for big gun irrigation is assumed to be 65 percent, flood irrigation is assumed to be 50 percent, and handlines is assumed to be 75 percent.⁶ For the purposes of this analysis, 65 percent efficiency will be used, as a combination of big guns, handlines and flood irrigation have been used for irrigation on the property in the last five years. This is consistent with published estimates of irrigation efficiencies identified in the preliminary memo on determining irrigation efficiency and consumptive use issued by WDOE.⁷ Dividing the monthly crop irrigation requirement by the irrigation efficiency provides the monthly diversion requirement per acre. Table 2 provides the total crop irrigation and diversion requirement by month for the 135 acres served by the Smith water right.⁸

In total, during average water years, pasture on the 135 acres covered by the Smith water right requires 179.33 AF or 1.33 AF per acre to meet full crop water needs and achieve maximum yields. Applying the conveyance and irrigation efficiencies listed above, a total of 275.88 AF (2.04 AF/acre) would need to be diverted from the artesian springs on Mr. Smith's property to meet the total CIR. This information is summarized in Table 2.

Table 2: Total Crop Irrigation and Diversion Requirement by Month

Month	CIR (AF/Acre)	Total Farm CIR (AF)	Estimated Diversion Requirement (AF)
May	0.20	26.55	40.85
June	0.28	37.69	57.98
July	0.41	55.91	86.02
August	0.29	38.81	59.71
September	0.15	20.36	31.33
Season	1.331	179.33	275.88

According to statements provided by Mr. Smith and his farmhand, Mr. Morales, the artesian springs have always provided sufficient flows to satisfy full irrigation needs. Mr. Smith also stated that he has never been regulated by WDOE to satisfy a senior irrigator's irrigation requirement. WestWater was not able to acquire any private stream gage information for the artesian springs. The closest United States Geological Survey stream gage is located near

⁶ Irrigation efficiency is assumed to include on-farm application and conveyance losses.

⁷ Water Resources Program Guidance Memo (GUID-1210): Determining Irrigation Efficiency and Consumptive Use. Draft Guidelines. Undated. Washington Department of Ecology.

⁸ This analysis assumes that all water-righted acres are fully irrigated to the extent allowed.

Rainier, Washington, just downstream of Mr. Smith's property on the Deschutes River. However, because Mr. Smith obtains his irrigation water from an independent source originating on Mr. Smith's property and depositing into the Deschutes River, the stream gage in Rainier is not useful in calculating water availability. It is noted that Mr. Smith's water right is the only diversion from the artesian springs.

Mr. Smith also noted that he utilized up to 72 5-gallon per minute rain bird sprinklers to assist in irrigating his property from 1989 until 2006.⁹ To check the output surrounding this statement, a calculation can be used to determine the application amount produced by these sprinkler heads when all 72 heads were in operation. The calculation is as follows:

$$H=QT/A$$

Where Q = The flow rate in acre-inches/hr, or gallons per minute of the heads/450

T = The length/period of the application (hours/day)

A = Area irrigated (acres)

Calculation # 1: If Mr. Smith had his sprinklers running 24 hours per day, then he would irrigate at a rate of 0.142 inches per acre per day,¹⁰ or approximately 4.40 inches per month. This calculation is for the irrigation of 135 acres. Mr. Smith could not have irrigated his entire POU of 135 acres with 72 rainbird sprinklers at once and has stated that his farmhands moved the irrigation pipe once per day.

In conversations with irrigation equipment experts at Ernst Irrigation Supply in St. Paul, Oregon, they recommend 30 7.5-gallon per minute sprinklers per every 50 acres to cover an estimated ET during July and August of one to two inches of water per week (6.74 inches per month) for pasture, turf and alfalfa.¹¹

Calculation #2: Applying this same methodology from Ernst Irrigation to Mr. Smith's older, pre-2007 irrigation system of handlines and flood irrigation, Mr. Smith could likely irrigate around 80 acres at one time utilizing the 72 5-gallon per minute sprinklers.¹² Using the application formula above, Mr. Smith had the ability to divert around 0.24 inches per acre per

⁹ The number of sprinklers sold from Mr. Smith's farm was confirmed by the farmer who purchased the irrigation equipment from Mr. Smith.

¹⁰ $H = [(360 \text{ gpm}/450 \text{ gpm}) \times 24 \text{ hours}]/135 \text{ acres} = 0.142 \text{ inches/acre/day}$

¹¹ Conversation with Vic Schneider, Ernst Irrigation Supply, St. Paul, Oregon, January 15, 2010.

¹² To set up this ratio, WestWater utilized the flow rate of 30 7.5 gpm sprinklers (225 gpm) over the 50 acres and compared it to Mr. Smith's 72 5-gpm sprinklers (360 gpm) to determine the number of acres Mr. Smith could feasibly irrigate.

day over the 80 acres.¹³ This would equate to 3.06 AF per acre of diversion capacity over the entire 153-day irrigation season if the sprinklers had the proper pump size and were operated 24 hours per day and seven days per week.¹⁴

Calculation #3: However, Mr. Smith irrigated 135 acres. Setting up another ratio to spread the use across the entire property and only irrigating 14.22 hours per day (based on the rotation of the sprinklers across the entire 135 acres), Mr. Smith would divert 0.142 inches per day, which is the same result as Calculation #1, above.

Based on the rate of 0.142 inches per day, or 4.40 inches per month, Mr. Smith has the capacity and ability to divert enough water from his sprinklers alone to meet the full crop water needs in every month except July based on the WIG.¹⁵ Similarly, Mr. Smith's maximum diversion capacity utilizing handlines is 360 gpm or 243.5 AF throughout the entire irrigation season. This is less than the estimated diversion requirement in Table 2 above. However, these calculations regarding both inches per acre and total AF above do not factor in any water diverted through the use of flood irrigation, which Mr. Smith employed in conjunction with his sprinkler application. WestWater does not have any method to measure or quantify the amount of water diverted from the ditches and used for flood irrigation in conjunction with sprinklers. Using the calculations above, we can estimate that approximately 15.87 acres would need to be irrigated using flood irrigation based on a diversion requirement of 2.04 AF per acre.¹⁶ It is plausible that 16 acres was irrigated through flood irrigation. This discussion shows that the limiting factor in Mr. Smith's irrigation system is not the number of sprinkler heads he utilized on his farm, but remains with the pump capacity of his irrigation pump.

The following subsections outline the methods and data used in this analysis to determine the validity of the Smith water right, and the mitigation quantity available to the Cities to offset predicted impacts from the Cities' proposed diversions from various locations east of the Deschutes River.

¹³ $H = [(360 \text{ gpm}/450 \text{ gpm}) \times 24 \text{ hours}]/80 \text{ acres} = 0.24 \text{ inches/acre/day}$

¹⁴ $(0.24 \text{ inches}/12) \times 153 \text{ day irrigation season}$

¹⁵ Pasture from the Olympia area in July requires 4.97 inches/acre

¹⁶ $(275.88 \text{ AF diversion} - 243.5 \text{ AF handline capacity})/2.04 \text{ AF/acre}$

Aerial Photograph Review

Aerial photographs from 1986 through 2009 (Appendix C) are included in this report to support data collected from interviews with the landowners (Appendix B). WestWater staff collected aerial photos from 1986 through 2009 as they represent the most recent available documentation that irrigation use has continued on the property since the certificate was issued in 1989. Aerial photos were obtained from the U.S. Geological Survey (USGS), Washington Department of Transportation (WSDOT), Department of Natural Resources (DNR), and US Department of Agriculture (USDA). Below, Table 3 shows the year and source for each aerial photo in Appendix C.

Table 3: Year and Source for Aerial Photos of the Smith Farm

Year	Source
1986	WSDOT
1989	WSDOT
1993	DNR
1996	DNR
1999	DNR
2004	USDA
2005	USDA
2006	USDA
2009	USDA

No other aerial photos were available in a public format. Aerial photos were reviewed using Google Earth but due to copyright laws, WestWater did not include them in this report. Overall, the aerial photographs support Smith's claim that continuous farming and irrigation has occurred on the 135 acres since issuance of the water right.

Consumptive Use Calculation

The final step in determining the total consumptive use is to account for the consumptive use efficiency and evaporative loss. Based on direction from the WDOE's GUID-1210, WDOE has considered evaporative losses to be considered as a consumptive use. However, all deep percolation and runoff have generally been considered available for downstream use and, therefore, have not been counted toward estimates of consumptive quantity. Consequently, this analysis focuses only on consumptive use associated with crop consumption, also known as Crop Irrigation Requirement (CIR), and losses from spray, wind, and canopy evaporation (%Evap). Therefore, ACQ is equal to $CIR + \%Evap$.

According to 2005 WDOE draft guidelines, determining consumptive use accounts for the following:

- If the estimated or calculated efficiency is *equal* to the average Application Efficiency (Ea), the consumptive portion and average return flow portion of the Ea can be based on published efficiency rates identified by WDOE.¹⁷

For the purpose of this analysis, we assume the following:

- The estimated on-farm application efficiency is 65 percent.
- The %Evap consumed coefficient is 10 percent for this analysis.
- The estimated Return Flow is 25 percent.

Table 4 calculates the ACQ based on the assumptions above. The following provides a summary of calculations performed for each column listed in the table:

- **Column A:** The CIR estimated in the WIG for pasture in the Olympia area.
- **Column B:** The CIR is adjusted to reflect AF per acre. Calculation performed: $\text{Monthly CIR} \div 12$
- **Column C:** Monthly diversion quantities are estimated based on the assumed hand line/flood or big gun application efficiency and the CIR. Calculation performed: $\text{Column B} \div 65 \text{ percent EA}$.
- **Column D:** The EA consumed reflects the portion of irrigation efficiency that is consumptively used through evaporation that is in addition to the CIR. %Evap water consumed is based on the %Evap coefficient of 10 percent and the total diversion quantity. Calculation performed: $\text{Column C} \times 10 \text{ percent}$.

¹⁷ Water Resources Program Guidance Memo (GUID-1210): Determining Irrigation Efficiency and Consumptive Use. Draft Guidelines. Undated. Washington Department of Ecology.



- **Column E:** Total consumptive use is the sum of the CIR and %Evap and is reported as AF per acre. Calculation performed: Column B + Column D
- **Column F:** Total farm ACQ use estimates the total consumptive use for all acres. Calculation performed: Column E x 135 acres.

Table 4: Smith Water Right Total Consumptive Use Estimate*

	Column A	Column B	Column C	Column D	Column E	Column F
	CIR (Inches/A)	CIR (AF/A)	Diversion Quantity (AF/A)	%Evap Water Consumed (AF/A)	Total Consumptive Use (AF/A)	Total Farm Consumptive Use (AF)
May	2.36	0.20	0.30	0.03	0.23	30.63
June	3.35	0.28	0.43	0.04	0.32	43.49
July	4.97	0.41	0.64	0.06	0.48	64.51
August	3.45	0.29	0.44	0.04	0.33	44.78
September	1.81	0.15	0.23	0.02	0.17	23.50
Season	15.94	1.33	2.04	0.20	1.53	206.91

Note: The estimated total ACQ that should be consumed and available for mitigation is 206.91 AF annually.

Based off of the calculations above, 206.91 AF of water would typically be consumed by pasture in the Olympia area from May through September under normal irrigation conditions. However, when the certificate for Mr. Smith's water right was issued, only 170 AF was granted in the certificate as a maximum annual diversion quantity (Qa). This can be attributed partially to Mr. Smith not obtaining the proper sized pump to fit the rate originally applied for. When Mr. Smith purchased a 300 gpm pump to service his well, it could be argued that a more appropriate annual quantity on the water right would have been 202.90 AF/year.¹⁸ Instead, he was issued a water right for 135 acres, 170 AF/year, and at a rate of 300gpm.

Mr. Smith now owns two pumps that have the capacity to withdraw 476 gpm or an estimated quantity of 2.10 AF/day or 321.93 AF over the 153-day irrigation season. Based on the historical irrigation practices and available evidence of use it is highly likely that Mr. Smith diverted more water than entitled under his water right to keep his pasture green throughout the irrigation season. Consequently, the consumptive use associated with the property was significantly higher based on Mr. Smith's irrigation practices. Therefore, the proposed cancellation of the water right would reduce the historical use of water by 321.93 AF based on

¹⁸ 300 gpm = 0.69 cfs x 1.983 AF/day x 153 days = 202.90 AF/year

the diversion current quantity and 206.91 AF based on the consumptive quantity. The proposed transfer would permanently relinquish the diversion and consumptive use of water on the property. Therefore, the Cities are requesting that the full quantity of the water right of 170 AF be credited toward its mitigation requirements in the Deschutes River through the cancellation of Mr. Smith's water right. The requested quantity is less than the estimated diversion and consumptive use on the property and the benefit to the Deschutes River during the irrigation season will be much greater than the requested mitigation quantity.



Summary and Conclusion

Based on WestWater's evaluation of the Smith water right and the supporting data and information presented in this report, it is WestWater's opinion that:

1. Water Right Certificate G2-26862GWRIS was issued for the irrigation of 135 acres and Mr. Smith applied water in a sufficient quantity to maintain his pasture. The pasture consumed a sufficient quantity of water as to maintain production over the 135 acres.
2. The water right has been continuously used for irrigating 135 acres of pasture since the certificate was issued.
3. The primary method of irrigation is big gun sprinkler irrigation.
4. Based on the affidavit and declaration from Mr. Smith and Mr. Morales, flow is not a limiting factor in fully satisfying the Smith water right.
5. The Smith artesian spring overflow is directly connected and adjacent to the Deschutes River.
6. By cancelling Mr. Smith's water right, flow into the Deschutes River from the unnamed artesian spring on Mr. Smith's property will greatly increase.
7. The ACQ estimate of 206.91 AF represents a reasonable approximation for quantifying the consumptive use on the 135 acres of Mr. Smith's pasture.
8. Based on the CIR for pasture in the Olympia area, estimates for conveyance and irrigation efficiencies, and estimated total ACQ, the full quantity of 170 AF is consumed by the crop and therefore available for mitigation.
9. Cancellation of the full water right would return a minimum of 206.91 AF back to the Deschutes River.
10. The Cities request that 170 AF per year be credited towards their mitigation responsibilities in the Deschutes Basin.



Appendix A:
Summary of Water Right Certificate No.
G2-26862GWRIS



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

CERTIFICATE OF WATER RIGHT

- ☐ Surface Water (Issued in accordance with the provisions of Chapter 117, Laws of Washington for 1917, and amendments thereto, and the rules and regulations of the Department of Ecology.)
- ☒ Ground Water (Issued in accordance with the provisions of Chapter 263, Laws of Washington for 1945, and amendments thereto, and the rules and regulations of the Department of Ecology.)

PRIORITY DATE February 18, 1986	APPLICATION NUMBER G 2-26862	PERMIT NUMBER G 2-26862 P	CERTIFICATE NUMBER G 2-26862 C
---	--	-------------------------------------	--

NAME Ron Smith Farms			
ADDRESS (STREET) 16224 Vail Road SE	(CITY) Yelm	(STATE) Washington	(ZIP CODE) 98597

This is to certify that the herein named applicant has made proof to the satisfaction of the Department of Ecology of a right to the use of the public waters of the State of Washington as herein defined, and under and specifically subject to the provisions contained in the Permit issued by the Department of Ecology, and that said right to the use of said waters has been perfected in accordance with the laws of the State of Washington, and is hereby confirmed by the Department of Ecology and entered of record as shown, but is limited to an amount actually beneficially used.

PUBLIC WATER TO BE APPROPRIATED

SOURCE Well		
TRIBUTARY OF (IF SURFACE WATERS)		
MAXIMUM CUBIC FEET PER SECOND 300	MAXIMUM GALLONS PER MINUTE 170	MAXIMUM ACRE-FEET PER YEAR 170
QUANTITY, TYPE OF USE, PERIOD OF USE 170 acre-feet per year irrigation of 135 acres May 1 to October 1		

LOCATION OF DIVERSION/WITHDRAWAL

APPROXIMATE LOCATION OF DIVERSION-WITHDRAWAL
800 feet South of the Northwest corner of Section 29.

LOCATED WITHIN (SMALLEST LEGAL SUBDIVISION) NW1/4NW1/4	SECTION 29	TOWNSHIP N. 16	RANGE, (E. OR W.) W.M. 2 E	W.R.I.A. 13	COUNTY Thurston
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RECORDED PLATTED PROPERTY

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

LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS TO BE USED

The S1/2NW1/4 and that portion of the SW1/4 of Section 29, T. 16 N., R. 2 E.W.M., lying North of the Deschutes River, and those portions of the S1/2NE1/4 and the South 500 feet of the N1/2NE1/4 of Section 30, T. 16 N., R. 2 E.W.M., lying North of the Deschutes River and East of the Vail Road.

PROVISIONS

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 2,000 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 2,000 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.

The right to the use of the water aforesaid hereby confirmed is restricted to the lands or place of use herein described, except as provided in RCW 90.03.380, 90.03.390, and 90.44.020.

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

Given under my hand and the seal of this office at Olympia Washington, this 31 day
of January, 1989

Christine O. Gregoire, Director
Department of Ecology

ENGINEERING DATA

by 

Gary E. Hanson, Water Resources Supervisor

FOR COUNTY USE ONLY

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

CERTIFICATE OF WATER RIGHT

- ☐ Surface Water (Issued in accordance with the provisions of Chapter 117, Laws of Washington for 1917, and amendments thereto, and the rules and regulations of the Department of Ecology.)
- ☒ Ground Water (Issued in accordance with the provisions of Chapter 263, Laws of Washington for 1945, and amendments thereto, and the rules and regulations of the Department of Ecology.)

PRIORITY DATE February 18, 1986	APPLICATION NUMBER G 2-26862	PERMIT NUMBER G 2-26862 P	CERTIFICATE NUMBER G 2-26862 C
---	--	-------------------------------------	--

NAME Ron Smith Farms			
ADDRESS (STREET) 16224 Vail Road SE	(CITY) Velm	(STATE) Washington	(ZIP CODE) 98597

This is to certify that the herein named applicant has made proof to the satisfaction of the Department of Ecology of a right to the use of the public waters of the State of Washington as herein defined, and under and specifically subject to the provisions contained in the Permit issued by the Department of Ecology, and that said right to the use of said waters has been perfected in accordance with the laws of the State of Washington, and is hereby confirmed by the Department of Ecology and entered of record as shown, but is limited to an amount actually beneficially used.

PUBLIC WATER TO BE APPROPRIATED

SOURCE Well
TRIBUTARY OF (IF SURFACE WATERS)

MAXIMUM CUBIC FEET PER SECOND	MAXIMUM GALLONS PER MINUTE 300	MAXIMUM ACRE-FEET PER YEAR 270,170
-------------------------------	--	--

QUANTITY, TYPE OF USE, PERIOD OF USE 270 acre-feet per year	irrigation of 135 acres	May 1 to October 1
170		

LOCATION OF DIVERSION/WITHDRAWAL

APPROXIMATE LOCATION OF DIVERSION-WITHDRAWAL 800 feet South of the Northwest corner of Section 29.
--

LOCATED WITHIN (SMALLEST LEGAL SUBDIVISION) NW1/4	SECTION 29	TOWNSHIP N. 16	RANGE, (E. OR W.) W.M. 2 E	W.R.L.A. 13	COUNTY Thurston
---	----------------------	--------------------------	--------------------------------------	-----------------------	---------------------------

RECORDED PLATTED PROPERTY

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

LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS TO BE USED

The S1/2NW1/4 and that portion of the SW1/4 of Section 29, T. 16 N., R. 2 E.W.M., lying North of the Deschutes River, and those portions of the S1/2NE1/4 and the South 500 feet of the N1/2NE1/4 of Section 30, T. 16 N., R. 2 E.W.M., lying North of the Deschutes River and East of the Vail Road.

PROVISIONS.

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 2,000 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 2,000 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.

The right to the use of the water aforesaid hereby confirmed is restricted to the lands or place of use herein described, except as provided in RCW 90.03.380, 90.03.390, and 90.44.020.

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

Given under my hand and the seal of this office at
of, 19.....

Washington, this day

Department of Ecology

ENGINEERING DATA

OK

by

FOR COUNTY USE ONLY



APPLICATION FOR PERMIT
TO APPROPRIATE PUBLIC WATERS OF THE STATE OF WASHINGTON

☒ SURFACE WATER

☐ GROUND WATER

\$10.00 MINIMUM STATUTORY EXAMINATION FEE REQUIRED WITH APPLICATION

(GRAY BOXES FOR OFFICE USE ONLY)

APPLICATION NO. G225862	WRIA 13	COUNTY Thurston	PRIORITY DATE 2/18/86	TIME 2:30 pm	ACCEPTED 15
APPLICANT'S NAME - PLEASE PRINT Boa Smith Farms			BUSINESS TEL. 874-2424		
ADDRESS (STREET) 16224 Vail Rd S.E.			HOME TEL. 98597		
(CITY) Yelm			(STATE) WA		
DATE & PLACE OF INCORPORATION IF APPLICANT IS A CORPORATION			(ZIP CODE)		

SOURCE OF SUPPLY	
<input checked="" type="checkbox"/> IF SURFACE WATER SOURCE (NAME OF STREAM, LAKE, SPRING, ETC.) OF UNNAMED FOR STATE as required by SRA and find that it is: <input type="checkbox"/> not an "action". <input checked="" type="checkbox"/> categorically exempt.	<input type="checkbox"/> IF GROUND WATER SOURCE (WELL, TUNNEL, INFILTRATION TRENCH, ETC.) (Well) SIZE AND DEPTH 10' dia x 10' deep
TRIBUTARY 2/18/86 Cathy Barker DATE SIGNATURE	

2. (Irrigation) USE	
USE TO WHICH WATER IS TO BE APPLIED (DOMESTIC SUPPLY, IRRIGATION, MINING, MANUFACTURING, ETC.) Irrigation during the irrigation season.	
ENTER QUANTITY OF WATER REQUESTED USING UNITS OF: CUBIC FEET PER SECOND OR GALLONS PER MINUTE 1000 GPM	ACRE FEET PER YEAR As needed
TIMES DURING YEAR WATER WILL BE REQUIRED June thru Oct. depending on Rainfall (Irrigation Season = May 1 - October 31)	
IF IRRIGATION: NUMBER OF ACRES (Approx 200 acres)	IF DOMESTIC USE: NUMBER OF UNITS BY TYPE, E.G. 1-HOME, 1-MOBILE HOME, 2-CAMPERS, ETC. (3/1/86)
DATE PROJECT WAS OR WILL BE STARTED (5/1/86)	DATE PROJECT WAS OR WILL BE COMPLETED (5/1/86)

3. LOCATION OF POINT OF DIVERSION/WITHDRAWAL					
3A. IF IN PLATTED PROPERTY					
LOT	BLOCK	OF (GIVE NAME OF PLAT OR ADDITION)	SECTION	TOWN	RANGE
ALSO, PLEASE ENCLOSE A COPY OF THE PLAT AND MARK THE POINT(S) OF WITHDRAWAL OR DIVERSION					

3B. IF NOT IN PLATTED PROPERTY					
ON ACCOMPANYING SECTION MAPS, ACCURATELY MARK AND IDENTIFY EACH POINT OF DIVERSION. SHOW NORTH-SOUTH AND EAST-WEST DISTANCES FROM NEAREST SECTION CORNER OR PROPERTY CORNER. ALSO, ENTER BELOW THE DISTANCES FROM THE NEAREST SECTION OR PROPERTY CORNER TO THE DIVERSION OR WITHDRAWAL. 800' south of NW corner post of sec 29					
LOCATED WITHIN (SMALLEST LEGAL SUBDIVISION)	SECTION	TOWNSHIP N	RANGE (E. OR W.) W.M.	COUNTY	
Well is on NW 1/4 of NW 1/4	29	16	2E	Thurston	

4. DO YOU OWN THE LAND ON WHICH THIS SOURCE IS LOCATED. IF NOT, INSERT NAME & ADDRESS OF OWNER Yes
5. LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS TO BE USED ATTACH A COPY OF THE LEGAL DESCRIPTION OF THE PROPERTY (ON WHICH THE WATER WILL BE USED) TAKEN FROM A REAL ESTATE CONTRACT, PROPERTY DEED OR TITLE INSURANCE POLICY, OR, COPY CAREFULLY IN THE SPACE BELOW.

29-16-2E-14-NW-1/4-S2-1/4
And portion of
5 1/2 NW 1/4 and that portion of the south west quarter of section 29
T. 16 N R. 26 E lying North of the Deschutes river. That portion of the SE 1/4 of the
NE 1/4 and the SW 1/4 NE 1/4 lying North of the Deschutes river and East of
the Vail Road. The South 500' of the NE 1/4 NE 1/4 and the South
500' of the NW 1/4 NE 1/4 lying east of Vail Road within section 29
T. 16 N R. 26 E in Thurston Co.

property owner

WHAT IS YOUR INTEREST IN THE PROPERTY ON WHICH THE WATER IS TO BE USED (PROPERTY OWNER, LESSEE, OWNER OF PURCHASER, ETC.)

ARE THERE ANY EXISTING WATER RIGHTS RELATED TO THE LAND ON WHICH THE WATER IS TO BE USED (INCLUDING WATER PROVIDED BY IRRIGATION DISTRICTS OR DITCH COMPANIES) ☐ YES ☒ NO

IF YES, FROM WHAT SOURCE (I.E. SURFACE OR GROUND WATER) AND UNDER WHAT AUTHORITY

6. DESCRIPTION OF SYSTEM PROPOSED OR INSTALLED

(FOR EXAMPLE: SIZE OF PUMP, CAPACITY OF PUMP, PUMP MOTOR HORSE POWER, PIPE DIAMETER, NUMBER OF SPRINKLERS, ETC.)

3" x 2 1/2" - 300 gpm, 30 hp, 6" to 3" pipe,
3 water gauges

7. REMARKS

IF 10 ACRE-FEET OR MORE OF WATER IS TO BE STORED AND/OR IF THE WATER DEPTH WILL BE 10 FEET OR MORE AT THE DEEPEST POINT, A STORAGE PERMIT MUST BE FILED IN ADDITION TO THIS PERMIT. THESE FORMS CAN BE SECURED, TOGETHER WITH INSTRUCTIONS, FROM THE DEPARTMENT OF ECOLOGY.

SIGNATURES

RONALD N. SMITH
LEGAL LANDOWNER'S NAME
(PLEASE PRINT)

Ronald N. Smith
APPLICANT'S SIGNATURE

Ronald N. Smith
LEGAL LANDOWNER'S SIGNATURE

16224 Tail Road, Yelm, WA
LEGAL LANDOWNER'S ADDRESS 98597

FOR OFFICE USE ONLY

STATE OF WASHINGTON }
DEPARTMENT OF ECOLOGY } SS.

This is to certify that I have examined this application together with the accompanying maps and data, and am returning it for correction or completion as follows:

In order to retain its priority date, this application must be returned to the Department of Ecology, with corrections, on or before..... 19.....

Witness my hand this..... day of..... 19.....

Department of Ecology

**STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY**

PERMIT

TO APPROPRIATE PUBLIC WATERS OF THE STATE OF WASHINGTON

- ☐ **Surface Water** (Issued in accordance with the provisions of Chapter 117, Laws of Washington for 1917, and amendments thereto, and the rules and regulations of the Department of Ecology.)
- ☒ **Ground Water** (Issued in accordance with the provisions of Chapter 263, Laws of Washington for 1945, and amendments thereto, and the rules and regulations of the Department of Ecology.)

PRIORITY DATE February 18, 1986	APPLICATION NUMBER G 2-26862	PERMIT NUMBER G 2-26862 P	CERTIFICATE NUMBER
---	--	-------------------------------------	---------------------------

NAME Ron Smith Farms			
ADDRESS (STREET) 16224 Vail Road SE	(CITY) Yelm	(STATE) Washington	(ZIP CODE) 98597

The applicant is, pursuant to the Report of Examination which has been accepted by the applicant, hereby granted a permit to appropriate the following described public waters of the State of Washington, subject to existing rights and to the limitations and provisions set out herein.

PUBLIC WATER TO BE APPROPRIATED

SOURCE Well		
TRIBUTARY OF (IF SURFACE WATERS)		
MAXIMUM CUBIC FEET PER SECOND	MAXIMUM GALLONS PER MINUTE	MAXIMUM ACRE-FEET PER YEAR
	1000	270
QUANTITY, TYPE OF USE, PERIOD OF USE		
270 acre-feet per year	irrigation of 135 acres	May 1 to October 1

LOCATION OF DIVERSION/WITHDRAWAL

APPROXIMATE LOCATION OF DIVERSION-WITHDRAWAL 800 feet South of the Northwest corner of Section 29.
--

LOCATED WITHIN (SMALLEST LEGAL SUBDIVISION) NW1/4	SECTION 29	TOWNSHIP N. 16	RANGE, (E. OR W.) W.M. 2 E	W.R.T.A. 13	COUNTY Thurston
---	----------------------	--------------------------	--------------------------------------	-----------------------	---------------------------

RECORDED PLATTED PROPERTY

LOT	BLOCK	OF (GIVE NAME OF PLAT OR ADDITION)

LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS TO BE USED

The S1/4NW1/4 and that portion of the SW1/4 of Section 29, T. 16 N., R. 2 E.W.M., lying North of the Deschutes River, and those portions of the S1/4NE1/4 and the South 500 feet of the N1/4NE1/4 of Section 30, T. 16 N., R. 2 E.W.M., lying North of the Deschutes River and East of the Vail Road.

DESCRIPTION OF PROPOSED WORKS

4 foot diameter dug well. Water level approximately 8 feet below top of casing. Hand-set sprinkler system supplied by a 30 hp centrifugal pump.

DEVELOPMENT SCHEDULE

BEGIN PROJECT BY THIS DATE:	COMPLETE PROJECT BY THIS DATE:	WATER PUT TO FULL USE BY THIS DATE:
Started	Completed and In Use	December 1, 1987 12-1-88

PROVISIONS

Water users should understand that quantities recommended and the number of acres to be irrigated may be reduced at the time of issuance of a final water right commensurate with the capacity of the installed system and the number of acres actually irrigated.

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 2,000 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 2,000 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.

This permit shall be subject to cancellation should the permittee fail to comply with the above development schedule and/or fail to give notice to the Department of Ecology on forms provided by that Department documenting such compliance.

Given under my hand and the seal of this office at Olympia, Washington, this.....26th.....day of December, 1986

ANDREA BEATTY RINIKER, Director
Department of Ecology

ENGINEERING DATA

OK.....DW.....

by *Clark Haberman*
Clark Haberman, Regional Manager

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

NOTICE OF APPLICATION TO APPROPRIATE PUBLIC WATERS

TAKE NOTICE:

That Ron Smith Farms
of Yelm, Washington on February 18, 1986 under
Application No. G2-26862 filed for permit to appropriate public waters, subject to existing rights,
from a well
in the amount of 1,000 gallons per minute as needed
each year, for irrigation during the irrigation season.

The source of the proposed appropriation is located within NW 1/4
of Section 29, Township 16 N., Range 2E W.M., in Thurston County.

Protests or objections to approval of this application must include a detailed statement of the basis for objections; protests must be accompanied by a two dollar (\$2.00) recording fee and filed with the Department of Ecology, at the address shown below, within thirty (30) days from

(Last date of publication to be entered above by publisher)

DEPARTMENT OF ECOLOGY
Southwest Regional Office
7272 Clearwater Lane MS/LU 11
Olympia, WA 98504

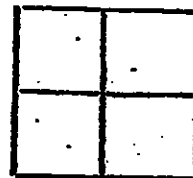
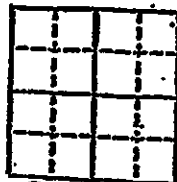
NOTICE

Application No.

Name

G-225862

POD Location



Section

"40"

Project Status: Not (started) (Started) (Completed)

Type of System: Swamp 10' dia & 4-5' deep spring cut

4' diameter

may go to

1 inch intake 1/2 inch outlet

Pump capacity, Horsepower: 30-hp (auto. pump)

Uses: Irrigation-Acres: Present 0 Applied 200 Feasible 200

Crop type: Hay & pasture

Pumping duration (season) May to October

Domestic (number) (type)

Stock (size herd)

Industrial (specific use)
Percent of time used

Non-consumptive uses

Municipal (population) (date)

Other

Other water rights (Certificates, claimed right, irrig. dist.)
appurtenant to this land

Proximity to existing wells, springs, streams:

Farm well see appurtenants drawing

Surface Water:

Other uses from same source

Flow measurement or estimate

Ground water:

Static level

Remarks: Talked briefly with Bernice J. Smith. Ron Smith her son is
person to talk to.

*Talk to
Ron Smith*

Examiner

Date of Exam

7/8/86

RESEARCH CHECKLIST

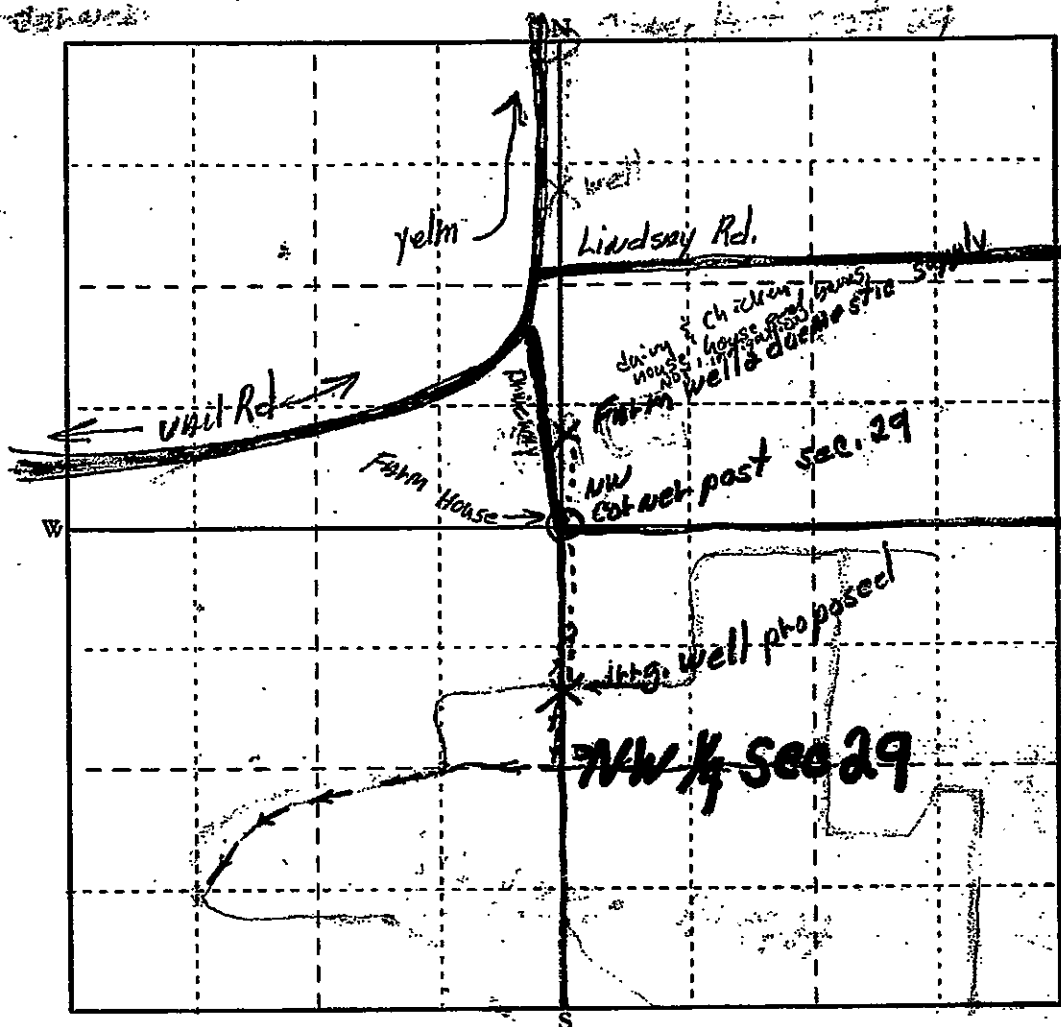
Closure List
Pin Map
Ketsker
Computer Printout
Kardex

Adjudication
Misc. Decrees
Flood Zone
Waste Discharge
HPOES
Survey & Maps



SECTION MAP

Sec. 29 Twp. 16 N. R. 2 E



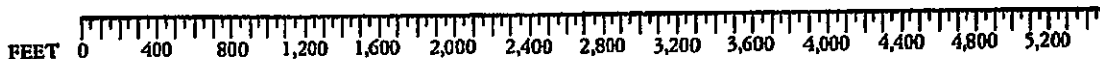
Scale: 1 inch = 800 feet (each small square = 10 acres)

Show by a cross (X) the location of point of diversion (surface water source) or point of withdrawal (ground water source). For ground water applications, show by a circle (O) the locations of other wells or works within a quarter of a mile. Indicate traveling directions from nearest town in space below.

yelm to Baldhills Rd - Right to Vail Road - About 7 mi, to Smith Farms at corner of Vail Rd and Lindsay Rd.

Detach here

Fold along scale



Detach this scale at the perforation, fold excess paper under or cut off excess by cutting along the scale line. This scale corresponds to the SECTION MAP above. You can read feet directly from this scale to outline property and locate points of diversion or withdrawal on the SECTION MAP. Enclose this map along with the application and \$10.00 examination fee.

A Home-Owned Legal Newspaper in Thurston County

YELM, WASHINGTON 98597

'86 APR -7 AM 11:38

STATE OF WASHINGTON } ss
County of Thurston }

D. R. Miller, being first duly

sworn on oath deposes and says that he is the printer of the Nisqually Valley News, a weekly newspaper. That said newspaper is a legal newspaper and has been approved as a legal newspaper by order of the superior court in the county in which it is published and it is now and has been for more than six months prior to the date of the publications hereinafter referred to, published in the English language continually as a weekly newspaper in Thurston County, Washington, and it is now and during all of said time was printed in an office maintained at the aforesaid place of publication of said newspaper.

That the annexed is a true copy of Notice of
Application to Appropriate Public Waters
as it was published in regular issues (and not in supplement form) of
said newspaper once a week for a period of three
consecutive weeks, commencing on the 20th day
of March, 19 86, and ending on the
3rd day of April, 1986
both dates inclusive and that such newspaper was regularly distributed
to its subscribers during all of said period. That the full amount of the
fee charged for the foregoing publication is the sum of \$ 43.68,
which amount has been paid in full.

**STATE OF WASHINGTON
DEPARTMENT OF BIOLOGY
NOTICE OF APPLICATION TO
APPROPRIATE
PUBLIC WATERS**

TAKE NOTICE That the San Juan
Farms of Yuma, Washington, on
February 15, 1936 under Application
No. G24882 and in pursuance of
proposed public notice, intend to ex-
ercise rights from water in the amount
of 1,000 gallons per month in natural
each year, for irrigation during the
season 1936-37.

The owner of the proposed appropri-
ation is located with headquarters at
Section 28 Township 18 N., Range 28,
W.M. in Thurston County.

Persons or associations in opposition of
this application shall indicate a dissent
or statement of the facts for objection
therein must be accompanied by a leg-
al declaration recording the said dissent
with the Department of Ecology at the
address shown below within sixty (60)
days from April 5, 1936.

Department of Ecology
Southwest Regional Office
7272 Clearwater Lane MS/U-11
Olympia, WA 98504
Published Nisqually Valley News
March 20, 27 April 3, 1936

affidavit OK
4/7/86
vj

Subscribed and sworn to before me this 4th day of

April , 19 86


Notary Public in and for the State of Washington.

residing at Yelm, Washington

**This form officially sanctioned by the
Washington Newspaper Publishers' Association**

October 27, 1986

Regarding Ground Water Application No. G2-26862

RECEIVED

'86 NOV 10 AM 11

COMPLETE THIS FORM ONLY IF THIS
APPLICATION INCLUDES IRRIGATION AS A USE.
SW REGIONAL OFFICE

In order to implement the provisions of Initiative Measure Number 59, the Family Farm Water Act which was passed by the voters on November 3, 1977, we must ask the following question:

Does the total number of acres in which you have controlling interest in the State of Washington exceed 2000 acres for the following three categories:

1. Lands that are being irrigated under water rights acquired after December 8, 1977.
2. Lands that may be irrigated under applications now on file with the Department of Ecology.
3. Lands that may be irrigated under this application.

YES

☐

NO

☒

Please sign and return

Ronald N. Smith
(Signature of Landowner)

Nov. 7, 1984
(Date)

**STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY**

**REPORT OF EXAMINATION
TO APPROPRIATE PUBLIC WATERS OF THE STATE OF WASHINGTON**

- ☐ **Surface Water** (Issued in accordance with the provisions of Chapter 117, Laws of Washington for 1917, and amendments thereto, and the rules and regulations of the Department of Ecology.)
- ☒ **Ground Water** (Issued in accordance with the provisions of Chapter 263, Laws of Washington for 1945, and amendments thereto, and the rules and regulations of the Department of Ecology.)

PRIORITY DATE February 18, 1986	APPLICATION NUMBER G 2-26862	PERMIT NUMBER	CERTIFICATE NUMBER
---	--	----------------------	---------------------------

NAME Ron Smith Farms			
ADDRESS (STREET) 16224 Vail Road SE	CITY Yelm	(STATE) Washington	(ZIP CODE) 98597

PUBLIC WATERS TO BE APPROPRIATED		
SOURCE Well		
TRIBUTARY OF (IF SURFACE WATERS)		
MAXIMUM CUBIC FEET PER SECOND	MAXIMUM GALLONS PER MINUTE	MAXIMUM ACRE-FEET PER YEAR
	1000	270
QUANTITY, TYPE OF USE, PERIOD OF USE		
270 acre-feet per year	irrigation of 135 acres	May 1 to October 1

LOCATION OF DIVERSION/WITHDRAWAL
APPROXIMATE LOCATION OF DIVERSION-WITHDRAWAL 800 feet South of the Northwest corner of Section 29.

LOCATED WITHIN (SMALLEST LEGAL SUBDIVISION) NW1/4 NW1/4	SECTION 29	TOWNSHIP N. 16	RANGE, E. OR W. W.M. 2 E	W.R.I.A. 13	COUNTY Thurston
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RECORDED PLATTED PROPERTY		
LOT	BLOCK	OF (GIVE NAME OF PLAT OR ADDITION)

LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS TO BE USED
The S1/2NW1/4 and that portion of the SW1/4 of Section 29, T. 16 N., R. 2 E.W.M., lying North of the Deschutes River, and those portions of the S1/2NE1/4 and the South 500 feet of the N1/2NE1/4 of Section 30, T. 16 N., R. 2 E.W.M., lying North of the Deschutes River and East of the Vail Road.

DESCRIPTION OF PROPOSED WORKS

4-foot diameter dug well. Water level approximately 8 feet below top of casing.
Hand-set sprinkler system supplied by a 30 hp centrifugal pump.

1

DEVELOPMENT SCHEDULE		
BEGIN PROJECT BY THIS DATE: Started	COMPLETE PROJECT BY THIS DATE: Completed and In Use	WATER PUT TO FULL USE BY THIS DATE: December 1, 1987

BACKGROUND:

This application was filed and accepted for priority date on February 18, 1986. Public notice appeared in the "Nisqually Valley News" of Yelm, Washington on March 20 and 27, 1986 and April 3, 1986. No objections were received as a result of the public notice.

The applicant seeks a permit in accordance with the provisions of Chapters 90.03 and 90.44 RCW to appropriate 1000 gallons per minute (gpm) of public ground water for irrigation of 200 acres.

INVESTIGATIONS:

Field examinations of this request were conducted by the writer on July 8, 1986 and October 20, 1986. The project was discussed with Ron Smith during the July 8, 1986 site visit and subsequently on one occasion when Mr. Smith came in to the office.

This area of Thurston County is rural in nature. Much of the area is either timber land or farm land with recreational developments in the Lawrence Lake area. Well spacing is such that interference with other wells will not likely result from this requested appropriation.

The well has been constructed. It is approximately 4 feet in diameter. The exact depth is unknown, but is probably from 10 to 15 feet below land surface. The well appears to be fed by an infiltration gallery. Water is withdrawn from the well by a centrifugal pump power by a 30 horsepower electric motor. The hand-set sprinkler system consists of 3 and 4 inch diameter main and lateral lines, and was operating at least 40 rainbird type sprinkler heads on October 20, 1986.

The place of use shown on the application describes an area of approximately 135 acres. This area is primarily pasture and hay land. The requested 200 acres shall be reduced to 135 acre accordingly.

The normal irrigation water requirement in this climatic region is 2 acre-feet per year per acre. This amounts to 270 acre-feet per year for irrigation of 135 acres. The normal irrigation season in Western Washington is from May 1 to October 1, each year.

CONCLUSIONS:

In accordance with Section 90.03 and 90.44 RCW, I find that there is water available for appropriation from the source in question and that the appropriation as recommended is a beneficial use and will not impair existing rights or be detrimental to the public welfare. Therefore, permit should issue, subject to existing rights and indicated provisions.

RECOMMENDATIONS:

It is recommended the application be approved for withdrawal of 1000 gallons per minute from a dug well in the amount of 270 acre-feet from May 1 to October 1, each year, for irrigation of 135 acres. Approval shall be subject to the following provisions.

This authorization to use public waters of the state 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 2,000 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 2,000 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.

Water user should understand that quantities recommended and the number of acres to be irrigated may be reduced at the time of issuance of a final water right commensurate with the capacity of the installed system and the number of acres actually irrigated.

REPORTED BY: John Smith

DATE: December 11, 1986

The statutory permit fee for this application is \$47.00.

To Dept of Ecology

Oct. 20, 1987 IN regard to app. # 92-26862

Irrigation system is in use as described in permit. ~~It~~ Request extension to allow for full development of well.

Should finish project by Dec. 1988

Patricia Johnson

The system withdraws 300 gallon per minute to operate the 40 sprinklers. They may be drilling a conventional well as current system clogs up.

OK for extension of CC
from 12-1-87
until 12-1-88

or
10-20-87

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

PROGRESS SHEET

COMPUTER INPUT
☐ APPLICATION
☐ PERMIT
☐ CERTIFICATE
☐ OTHER

☐ SURFACE WATER

☐ GROUND WATER

THURSTON

NAME Ron Smith Farms		TELEPHONE NO. 894-2424	
ADDRESS 16224 Vail Rd. SE		(CITY) Yelm	(STATE) WA
		(ZIP CODE) 98597	
ASSIGNED TO		TELEPHONE NO.	DATE ASSIGNED
ADDRESS		(CITY)	(STATE) (ZIP CODE)
APPLICATION NO. G 226862	PERMIT NO.	CERTIFICATION NO.	
DATE AMENDED	DATE CANCELLED	W.R.T.A. 13	
APPLICATION			
DATE APPLICATION RECEIVED 2/18/86	INITIAL \$10.00 FEE RECEIVED <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	DATE FEE RECEIVED 2/18/86	
STATEMENT OF ADDITIONAL EXAMINATION FEE \$	DATE SENT	DATE RECEIVED	
DATE RETURNED FOR COMPLETION OR CORRECTION		DATE RECEIVED	
TEMPORARY PERMIT			
APPROVED BY		DATE ISSUED	
PUBLICATION			
APPROVED BY		DATE APPROVED	DATE NOTICE SENT 2-27-86
PROTESTED BY AND DATE			
DATE AFFIDAVIT RECEIVED 4-7-86	CHECKED BY VJ	TIME EXPIRED 5-3-86	DATE AMENDED NOTICE SENT
DEPARTMENT OF GAME AND FISHERIES REPORT			
APPROVED	PROVIDO	PROTEST	
EXAMINATION			
DATE EXAMINATION MADE 7-8-86 & 10/20/86	MADE BY San	DATE REPORT OF EXAM. WRITTEN 10/27/86	WRITTEN BY San
DATE PERMIT FEE REQUESTED 12-11-86	AMOUNT DUE \$47.00 RT	DATE RECEIVED	
PERMIT			
PERMIT APPROVED BY	DATE APPROVED	PERMIT NO. P	DATE ISSUED 12-26-86
BEGINNING OF CONSTRUCTION			
DATE NOTICE SENT	DATE FILED Started	EXTENSION FEE	
EXTENDED TO		EXTENDED TO	
WELL DRILLER'S AND/OR CONSTRUCTION REPORT			
DATE SENT	DATE FILED W HIVE LOG	WELL CONSTRUCTED BY BACK HOLE CASED WITH CULVERT PIPE.	
COMPLETION OF CONSTRUCTION			
DATE NOTICE SENT	DATE FILED Complete	EXTENSION FEE	
EXTENDED TO		EXTENDED TO	
PROOF OF APPROPRIATION			
DATE SENT 12-26-86	DATE FILED	EXTENSION FEE	EXTENDED TO 12-1-88
DATE CERTIFICATE FEE REQUESTED	AMOUNT DUE	DATE RECEIVED	DATE APPROVED FOR CERTIFICATE
APPROVED BY			
CERTIFICATION			
PROOF EXAM. REQUIRED <input type="checkbox"/> YES <input type="checkbox"/> NO	CERTIFICATE NUMBER C	DATE ISSUED 2/3/89	
REMARKS			

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

PROOF OF APPROPRIATION OF WATER

APPLICATION NUMBER G2-26862		PERMIT NUMBER G2-26862 P	
NAME OF PERMITTEE Ron Smith Farms		BUS. TEL. 894-2424	
POST OFFICE ADDRESS 16224 Vail Rd. SE.		HOME TEL. 894-2424	
(CITY) Yelm		OTHER TEL.	
(STATE) WA		(ZIP CODE) 98597	
ACTUAL SOURCE OF APPROPRIATION Well			
PURPOSE OR PURPOSES WATER IS USED FOR Irrigation			
DATE WATER WAS COMPLETELY APPLIED TO PERMITTED USE August 1988		IF USED FOR IRRIGATION: NUMBER OF ACRES ACTUALLY IRRIGATED 135 Acres	
IF SOURCE IS A WELL, IS AN ACCESS PORT NOW INSTALLED <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		MONTHS DURING WHICH WATER IS USED MAY 1 - Oct. 1	
PUMP SIZE 30 Hp			
ACTUAL AMOUNT WITHDRAWN OR DIVERTED FROM PERMANENT SYSTEM 1000 gpm 300 gpm		<input checked="" type="checkbox"/> GPM <input type="checkbox"/> CFS	
HAVE ALL PROVISIONS AS REQUIRED BY PERMIT BEEN ACCOMPLISHED <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		IF NO, EXPLAIN	

LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS USED (USE ADDITIONAL SHEET IF NECESSARY)

The South 1/2 NW 1/4 and that portion of the SW 1/4 of Section 29, T. 16 N., R. 2 E.W.M., lying North of the Deschutes River, and those portions of the S. 1/2 NE. 1/4 and the South 500 feet of N. 1/2 NE. 1/4 of Section 30, T. 16 N., R. 2 E.W.M., lying North of the Deschutes River and East of the Vail Road

Per Patrick Johnson telephone conversation system uses 300gpm to operate 40 sprinkler heads to irrigate 135 Acres

OK for certificate at reduced rate of 300gpm. Rest like permit also reduce (Qa) to 170 HP/YR which is equal to 1 1/4 ac/acre approximately the limit of a 300gpm well without capacity

STATE OF WASHINGTON,
County of Thurston ss.

I, Ronald N. Smith, being first duly sworn, depose and say that I have read the above and foregoing proof of appropriation; that I know the contents thereof; and that the facts therein stated are true.

IN WITNESS WHEREOF, I have hereunto set my hand this 6 day of Jan, 1989.

Ronald N. Smith
Permittee Signature

Subscribed and sworn to before me this 6 day of Jan, 1989.

Archie L. Carl
Notary Public

P/A

CHRISTINE O. GREGOIRE
Director



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

7272 Cleanwater Lane, LU-11 • Olympia, Washington 98504-6811 • (206) 753-2353

January 31, 1989

County Auditor
Thurston County
Olympia, Washington 98501

Gentlemen:

Enclosed is Certificate of Water Right No. G 2-26862 C and payment in the amount of \$6.00 to cover the cost of recording.

After recording, please forward the certificate to:

Ron Smith Farms
16224 Vail Road S.E.
Yelm, Washington 98597

Sincerely,

A handwritten signature in cursive script, appearing to read "Gary E. Hanson".

Gary E. Hanson
Water Resources Supervisor
SOUTHWEST REGIONAL OFFICE

GEH:sf

Enclosures

WASHINGTON STATE
DEPARTMENT OF ECOLOGY

RECEIPT

163178

Jan 19, 1989

RECEIVED FROM Ronald N. Smith

Five dollars \$5.00

DOLLARS 5⁰⁰

FUND	General <input checked="" type="checkbox"/>	Res. Exp.	Basic Data	Other	Cash
SOURCE	Water Code <input checked="" type="checkbox"/>	Publications	Adjudications	Refunds	Check <input checked="" type="checkbox"/>
	Per. and Lic.	Investments	Registration	Other	M.O.

Certificate for 62-26802

Sherr Fox

Thank You

Appendix B: Affidavits and Declarations



1 soon switched over to Holsteins because they produced better milk. My grandfather
2 passed away in 1942 and my father took over the business. I was born in 1927 and raised
3 on the same property and began working on the farm as a young boy. I raised chickens
4 and also obtained our first lambs from my school in 1939. My father passed away in 1965
5 and I took over the farm. I focused on the chickens but maintained cattle on the property.
6 At the peak, I had 75,000 laying hens for eggs and maintained the chickens on the
7 property until the late 1990's when the market dropped and I was forced to sell the
8 chickens.

9 3. The 135 acres of irrigable land under certificate no. G2-26862GWRIS has been
10 irrigated almost every year since 1986 up to and including 2009. Some years, we irrigated
11 less (2002 and 2003 with pump problems) and some we irrigated completely from May
12 through September depending on the weather and livestock. We decided to obtain a water
13 right to provide better grass for the cattle and sheep. I sold my cows in 1998 because the
14 river would flood and my cows would get out and onto other neighbors properties and
15 cause damage where I had to compensate for the damage. I continue to maintain a herd of
16 1,200 Romney sheep for wool and meat production.

17 4. We sell around 550 to 600 bales of pasture hay each year so that the livestock
18 do not get overwhelmed with the amount of grass produced due to the irrigation. This is a
19 portion of our farm that is harvested and is first cutting hay that is taken off between
20 middle and late June. The rest of the pasture grass is left for the sheep and, historically,
21 cattle.

22 5. Historically, water use operations were as follows. A 40 Horse Power electric
23 pump and 6-inch aluminum mainline with 5-inch lateral handlines was employed to divert
24 water from the spring on our property (1986-1997). The handlines were moved every 24
25

1 hours and the sprinklers were set every 30 feet. Irrigation of the entire property would
2 usually take around 1 week and with assistance from farmhands, we would irrigate
3 beginning in May or June through September each year, depending on the weather that
4 season. The main problem with the fixed location was that our pump hose was getting
5 clogged with debris at the spring's source. In 1998, we tried to flood irrigate and realized
6 that we could not cover the entire property just from flood irrigation. My farmhand at the
7 time, John Hutchison (Hutch), purchased a diesel pump he found at a farm sale in 1998.
8 We got it working and were able to move the diesel pump downstream from the artesian
9 well. This reduced the clogging and we could use the diesel pump with sprinklers on the
10 upper portions of the property and outlying portions of the property and flood irrigate the
11 middle of the property.

12 6. In 2002 and 2003, we had problems with the diesel pump and could only flood
13 irrigate a small portion of the property. We got the pump working again and continued the
14 flood and sprinkler irrigation from 2004 until 2006. My main farmhand, Hutch, died
15 before the end of the 2006 season and no irrigation occurred from July 2006 on.

16 7. With little help around the farm and my age, I could not move pipe and did not
17 irrigate except for flood irrigation in 2007. In the Spring of 2008, I purchased two big
18 guns and reels and a gas and diesel pump. From 2008 to present, Armando Morales has
19 been my farmhand. Armando now moves all of my lines and irrigates the property.

20 7. We irrigate with a Honda GX 270 pump with a 2 inch line (8 hour reel) and 220
21 gpm capacity and a gas generator and a 12 hour reel holding 1,148 feet of 3 inch line, and
22 diesel pump with a 256 gpm capacity. Combined, the two big guns are moved (pivoted)
23 twice a day and can irrigate the entire property in five days.
24
25

Signed at Yelm, Washington this 29 day of Sept, 2009.

Ronald N. Smith
Ronald Smith

STATE OF WASHINGTON)
COUNTY OF THURSTON) ss.

On this day personally appeared before me Ronald Smith, to me known to be the individual described in and who executed the within and foregoing instrument, and acknowledged that he signed the same as his free and voluntary act and deed, for the uses and purposes herein mentioned.

Given under my hand and official seal this Sept 29th 2009.



Deanne Hardy
Printed Name: Deanne Hardy
Notary Public in and for the State of Washington
residing at Pierce Co
My commission expires: 7/29/2012

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In Re:)
Transfer of Water Right to The Cities of)
Olympia, Yelm and Lacey, Washington)
DECLARATION OF ARMANDO
MORALES)

I, Armando Morales, under penalty of perjury of the laws of the State of Washington, hereby declare as follows.

1. I am employed as a farm hand by Ron Smith and work on a property located at 16224 Vail Road SE, Yelm, Washington 98597. The farm includes 135 acres of irrigated pasture that currently produces feed for the 1,200 sheep I work with on the property. This declaration describes the work I perform regarding the use of irrigation on the property.

2. I began working for Ron Smith in the Spring of 2008. I collect wool, assist with repairs on structures, fix farm equipment, and run the irrigation system to support growth of pasture grass for the sheep.

3. I use two systems to irrigate the farm fields. The first is a smaller Honda pump and attached by hose from the spring to the bug gun. This big gun irrigates around 30 acres of the total 130 acres we irrigate. I use a larger diesel pump and a larger big gun with a long 3" line to irrigate the remaining 100 acres.

1 4. The last two years, I have started irrigating at the end of May or first week of
2 June because of a wet Spring. I irrigate for two to four weeks before we have contractors
3 that take the first cutting of Hay off (usually around 600 large bails). Within a week of the
4 cutting, I start irrigating the ground again and continue through September.

5 5. This year, I have had some problems with the diesel pump beginning in July
6 and have had to stop irrigating to work on the pump. I typically move the Big Guns two
7 times a day after the reel lines are finished with their sets. This is typically a pivot of the
8 big guns to cover the property. I then have to move the big guns to another location on the
9 property the next morning so that I can cover new ground. I can typically irrigate the
10 entire property in more than a week with both pumps and guns working. We usually cover
11 the entire property a number of times each year.

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14 Signed at Yelm, Washington this 14 day of Sept, 2009.

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16 Armando Morales
17 Armando Morales
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In Re:)	
Transfer of Water Right to The Cities of)	DECLARATION OF GARY
Olympia, Yelm and Lacey, Washington)	EDWARDS
)	

I, Gary Edwards, under penalty of perjury of the laws of the State of Washington, hereby declare as follows.

1. I have been a neighbor of Ron Smith's since I was a child and grew up within one mile of Ron Smith's property, located at 16224 Vail Road SE, Yelm, Washington 98597.

2. I was elected Thurston County Sherriff in 1986 and served in this position through 2006. Through my work and my personal relationship with Mr. Smith, I was either on his property or drove past his property on a daily to weekly basis during the period of time I served as Thurston County Sherriff.

3. I witnessed Mr. Smith irrigate almost every year during the summer months through the use of sprinklers. He would be irrigating from May through September. I witnessed Mr. Smith irrigate when he raised dairy cows as well as when he raised sheep.

4. It was rare if I ever did not drive past Mr. Smith's property during the Summer and not see any signs of active sprinkler irrigation. I know and attest that there was never

1 a period of five consecutive years where I did not witness sprinkler irrigation on Ron
2 Smith's property since 1986, when I was elected Sherriff of Thurston County.

3
4 5. I continue to witness Mr. Smith irrigating his property over the last two years
5 with the use of big guns instead of handline sprinklers.

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8 Signed at Yelm, Washington this 30th day of Sept., 2009.

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10 Gary Edwards
11 Gary Edwards
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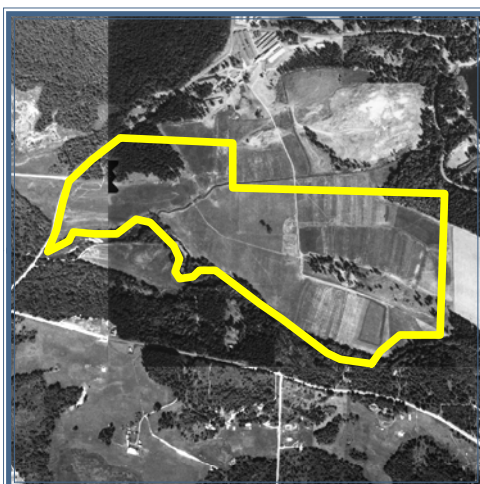
Appendix C: Aerial Photographs



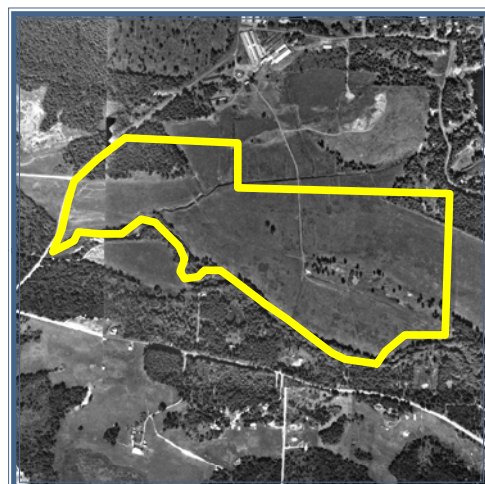
1986



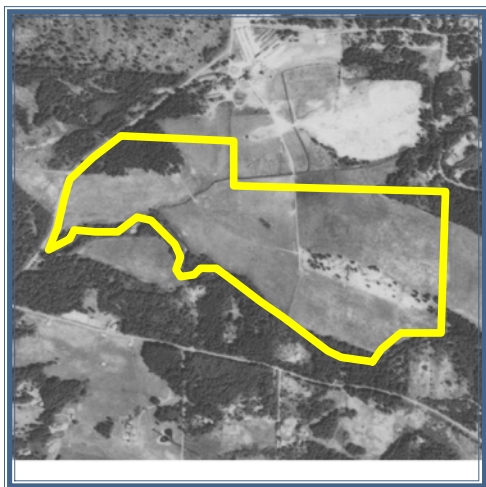
1989



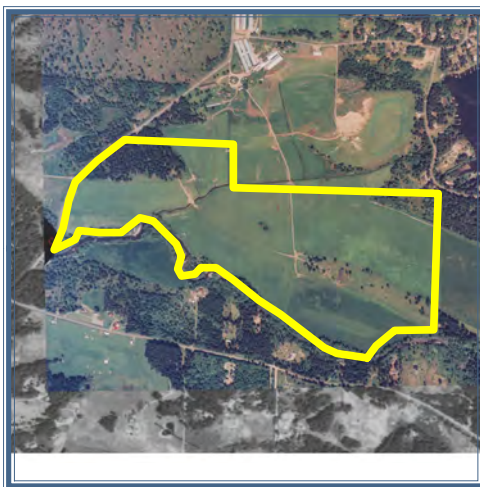
1993



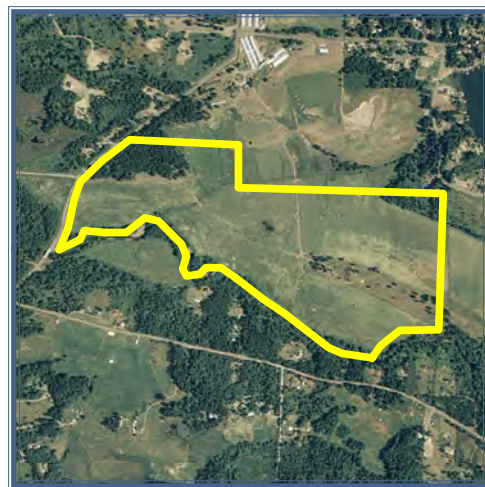
1996



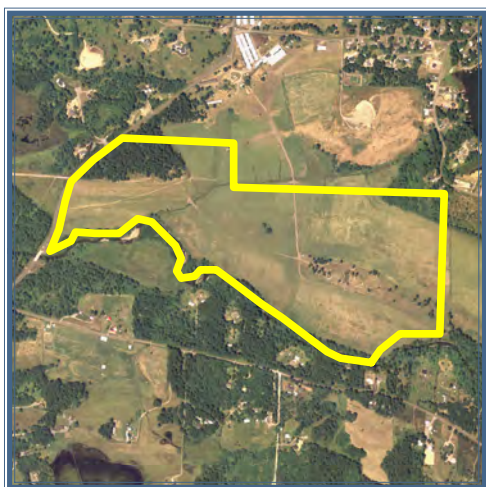
1999



2004



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2006



2009

