Groundwater Application Review Summary Form

Application # G- 18859

GW Reviewer Karl Wozniak **Date Review Completed:** November 18, 2019

Summary of GW Availability and Injury Review:

[ ] Groundwater for the proposed use is either over appropriated, will not likely be available in the amounts requested without injury to prior water rights, OR will not likely be available within the capacity of the groundwater resource per Section B of the attached review form.

Summary of Potential for Substantial Interference Review:

[ ] There is the potential for substantial interference per Section C of the attached review form.

Summary of Well Construction Assessment:

[ ] The well does not appear to meet current well construction standards per Section D of the attached review form. Route through Well Construction and Compliance Section.

✓ sr 11/19/19

This is only a summary. Documentation is attached and should be read thoroughly to understand the basis for determinations and for conditions that may be necessary for a permit (if one is issued).

WATER RESOURCES DEPARTMENT

MEMO **November 18**, 2019

TO: **Application** G-**18859**

FROM: **GW:** **Karl Wozniak**
(Reviewer's Name)

SUBJECT: Scenic Waterway Interference Evaluation

☐ **YES**
☒ **NO** The source of appropriation is hydraulically connected to a State Scenic Waterway or its tributaries

☐ **YES**
☒ **NO** Use the Scenic Waterway Condition (Condition 7J)

☐ Per ORS 390.835, the Groundwater Section is **able** to calculate ground water interference with surface water that contributes to a Scenic Waterway. The calculated interference is distributed below

☐ Per ORS 390.835, the Groundwater Section is **unable** to calculate ground water interference with surface water that contributes to a scenic waterway; **therefore, the Department is unable to find that there is a preponderance of evidence that the proposed use will measurably reduce the surface water flows necessary to maintain the free-flowing character of a scenic waterway**

DISTRIBUTION OF INTERFERENCE

Calculate the percentage of consumptive use by month and fill in the table below. If interference cannot be calculated, per criteria in 390.835, do not fill in the table but check the "unable" option above, thus informing Water Rights that the Department is *unable to make a Preponderance of Evidence finding.*

Exercise of this permit is calculated to reduce monthly flows in _____ Scenic Waterway by the following amounts expressed as a proportion of the consumptive use by which surface water flow is reduced.

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

MEMO

To: Kristopher Byrd, Well Construction and Compliance Section Manager

From: Joel Jeffery, Well Construction Program Coordinator

Subject: Review of Water Right Application G-18859

Date: November 22, 2019

The attached application was forwarded to the Well Construction and Compliance Section by Water Rights. Karl Wozniak reviewed the application. Please see Karl's Groundwater Review and the Well Logs.

Applicant's Well #1 (YAMH 58187): Based on a review of the Well Report, Applicant's Well #1 seems to protect the groundwater resource.

The construction of Applicant's Well #1 may not satisfy hydraulic connection issues.

Applicant's Well #2 (YAMH 58188): Based on a review of the Well Report, Applicant's Well #2 seems to protect the groundwater resource.

The construction of Applicant's Well #2 may not satisfy hydraulic connection issue.

Applicant's Well #3 (YAMH 58189): Based on a review of the Well Report, Applicant's Well #3 seems to protect the groundwater resource.

The construction of Applicant's Well #3 may not satisfy hydraulic connection issues.

Applicant's Wells #5 (YAMH 58191): Based on a review of the Well Report, Applicant's Well #5 seems to protect the groundwater resource.

The construction of Applicant's Well #5 may not satisfy hydraulic connection issues.

STATE OF OREGON
WATER SUPPLY WELL REPORT
(as required by ORS 537.765 & OAR 690-205-0210)

YAMH 58187
6/11/2019

WELL I.D. LABEL# L 133656
START CARD # 1042777
ORIGINAL LOG #

(1) LAND OWNER

Owner Well I.D. 3206-1
First Name _____ Last Name _____
Company ABG OREGON VINEYARDS, LLC
Address 600 UNIVERSITY ST SUITE 902
City SEATTLE State WA Zip 98101

(2) TYPE OF WORK

[X] New Well [ ] Deepening [ ] Conversion [ ] Alteration (complete 2a & 10) [ ] Abandonment(complete 5a)

(2a) PRE-ALTERATION

	Dia	+	From	To	Gauge	Stl	Plstc	Wld	Thrd
Casing:									

	Material	From	To	Amt	sacks/lbs
Seal:					

(3) DRILL METHOD

[X] Rotary Air [ ] Rotary Mud [ ] Cable [ ] Auger [ ] Cable Mud
[ ] Reverse Rotary [ ] Other _____

(4) PROPOSED USE

[ ] Domestic [X] Irrigation [ ] Community
[ ] Industrial/ Commericial [ ] Livestock [ ] Dewatering
[ ] Thermal [ ] Injection [ ] Other _____

(5) BORE HOLE CONSTRUCTION

Special Standard [ ] (Attach copy)
Depth of Completed Well 238.00 ft.

BORE HOLE

Dia	From	To
10	0	78
6	78	238

SEAL

Material	From	To	Amt	sacks/lbs
Bentonite Chips	0	78	39	S
		Calculated	36	
		Calculated		

How was seal placed: Method [ ] A [ ] B [ ] C [ ] D [ ] E
[X] Other POUR/PROBE/HYDRATE
Backfill placed from _____ ft. to _____ ft. Material _____
Filter pack from _____ ft. to _____ ft. Material _____ Size _____
Explosives used: [ ] Yes Type _____ Amount _____

(5a) ABANDONMENT USING UNHYDRATED BENTONITE

Proposed Amount Actual Amount

(6) CASING/LINER

Casing	Liner	Dia	+	From	To	Gauge	Stl	Plstc	Wld	Thrd
●	○	6	X	2	78	.25	●	○	X	
○	●	4		18	118	sch40	○	●		X
○	●	4		138	218	sch40	○	●		X
○	○						○	○		
○	○						○	○		

Shoe [ ] Inside [X] Outside [ ] Other Location of shoe(s) 78
Temp casing [X] Yes Dia 10 From + [ ] 0 To 8

(7) PERFORATIONS/SCREENS

Perforations Method _____
Screens Type machine slot Material PVC

Perf/ Screen	Casing/ Liner	Screen Dia	From	To	Scrn/slot width	Slot length	# of slots	Tele/ pipe size
Screen	Liner	4	118	138	.032			4
Screen	Liner	4	218	238	.032			4

(8) WELL TESTS: Minimum testing time is 1 hour

○ Pump ○ Bailer ● Air ○ Flowing Artesian

Yield gal/min	Drawdown	Drill stem/Pump depth	Duration (hr)
11.2		235	2

Temperature 54 °F Lab analysis [ ] Yes By _____
Water quality concerns? [ ] Yes (describe below) TDS amount 137 ppm

From	To	Description	Amount	Units

(9) LOCATION OF WELL (legal description)

County YAMHILL Twp 2.00 S N/S Range 4.00 W E/W WM
Sec 35 NE 1/4 of the SW 1/4 Tax Lot 101
Tax Map Number _____ Lot _____
Lat ____ ° ____ ' ____ " or 45.35100981 DMS or DD
Long ____ ° ____ ' ____ " or -123.14854069 DMS or DD
( ) Street address of well (●) Nearest address
NYA, NE LAUGHLIN RD, YAMHILL

(10) STATIC WATER LEVEL

	Date	SWL(psi)	+	SWL(ft)
Existing Well / Pre-Alteration				
Completed Well	5/14/2019			76

Flowing Artesian? [ ] Dry Hole? [ ]

WATER BEARING ZONES Depth water was first found 183.00

SWL Date	From	To	Est Flow	SWL(psi)	+	SWL(ft)
5/14/2019	183	224	11.2			76

(11) WELL LOG

Ground Elevation _____

Material	From	To
Top Soil	0	3
Clay, Tan/Brown some grit	3	19
Clay, tan w/brown claystone	19	33
Claystone, gray w/layers gray sandstone	33	69
Sandstone, coarse hard	69	83
Claystone, gray w/layers gray sandstone	83	179
Claystone, gray	179	183
Same, w/sandstone strats	183	190
Sandstone, gray w/lavender hard	190	198
Mix of gray claystone/sandstone	198	224
With blue/white/green	198	224
Claystone, gray w/Light gray clay	224	238

Date Started 5/10/2019 Completed 5/14/2019

(unbonded) Water Well Constructor Certification

I certify that the work I performed on the construction, deepening, alteration, or abandonment of this well is in compliance with Oregon water supply well construction standards. Materials used and information reported above are true to the best of my knowledge and belief.

License Number 1977 Date 5/15/2019

Signed JOSE ESTRADA (E-filed)

(bonded) Water Well Constructor Certification

I accept responsibility for the construction, deepening, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon water supply well construction standards. This report is true to the best of my knowledge and belief.

License Number 1438 Date 5/22/2019

Signed DAVID PAYSINGER (E-filed)

Contact Info (optional) bluewaterdrilling.com || 503 868 7878

ORIGINAL - WATER RESOURCES DEPARTMENT

THIS REPORT MUST BE SUBMITTED TO THE WATER RESOURCES DEPARTMENT WITHIN 30 DAYS OF COMPLETION OF WORK Form Version:

STATE OF OREGON
WATER SUPPLY WELL REPORT
(as required by ORS 537.765 & OAR 690-205-0210)

YAMH 58188

6/11/2019

WELL I.D. LABEL# L 133657
START CARD # 1042846
ORIGINAL LOG #

(1) LAND OWNER

Owner Well I.D. 3207-2
First Name _____ Last Name _____
Company ABG OREGON VINEYARDS LLC
Address 600 UNIVERSITY ST SUITE 902
City SEATTLE State WA Zip 98101

(2) TYPE OF WORK

[X] New Well [ ] Deepening [ ] Conversion [ ] Alteration (complete 2a & 10) [ ] Abandonment(complete 5a)

(2a) PRE-ALTERATION

	Dia	+	From	To	Gauge	Stl	Plstc	Wld	Thrd
Casing:									

	Material	From	To	Amt	sacks/lbs
Seal:					

(3) DRILL METHOD

[X] Rotary Air [ ] Rotary Mud [ ] Cable [ ] Auger [ ] Cable Mud
[ ] Reverse Rotary [ ] Other _____

(4) PROPOSED USE

[ ] Domestic [X] Irrigation [ ] Community
[ ] Industrial/ Commericial [ ] Livestock [ ] Dewatering
[ ] Thermal [ ] Injection [ ] Other _____

(5) BORE HOLE CONSTRUCTION

Special Standard [ ] (Attach copy)
Depth of Completed Well 281.00 ft.

BORE HOLE Dia	From	To	SEAL Material	From	To	Amt	sacks/lbs
10	0	78	Bentonite Chips	0	78	41	S
6	78	281			Calculated	37	
					Calculated		

How was seal placed: Method [ ] A [ ] B [ ] C [ ] D [ ] E
[X] Other POUR/PROBE/HYDRATE
Backfill placed from _____ ft. to _____ ft. Material _____
Filter pack from _____ ft. to _____ ft. Material _____ Size _____
Explosives used: [ ] Yes Type _____ Amount _____

(5a) ABANDONMENT USING UNHYDRATED BENTONITE

Proposed Amount Actual Amount

(6) CASING/LINER

Casing	Liner	Dia	+	From	To	Gauge	Stl	Plstc	Wld	Thrd
●	○	6	X	2	78	.25	●	○	X	
○	●	4.5		2	102	sdr26	○	●		X
○	●	4.5		122	142	sdr26	○	●		X
○	●	4.5		162	202	sdr26	○	●		X
○	●	4.5		222	271	sdr26	○	●		X

Shoe [ ] Inside [X] Outside [ ] Other Location of shoe(s) 78
Temp casing [X] Yes Dia 10 From +[X] 1 To 5

(7) PERFORATIONS/SCREENS

Perforations Method skil saw
Screens Type _____ Material _____

Perf/ Screen	Casing/ Screen Liner	Dia	From	To	Scrn/slot width	Slot length	# of slots	Tele/ pipe size
Perf	Liner	4.5	102	122	.1	6	40	
Perf	Liner	4.5	142	162	.1	6	40	
Perf	Liner	4.5	202	222	.1	6	40	
Perf	Liner	4.5	271	281	.1	6	22	

(8) WELL TESTS: Minimum testing time is 1 hour

( ) Pump ( ) Bailer (●) Air ( ) Flowing Artesian

Yield gal/min	Drawdown	Drill stem/Pump depth	Duration (hr)
64		270	4
64		260	4

Temperature 54 °F Lab analysis [ ] Yes By _____
Water quality concerns? [ ] Yes (describe below) TDS amount 67 ppm

From	To	Description	Amount	Units

(9) LOCATION OF WELL (legal description)

County YAMHILL Twp 2.00 S N/S Range 4.00 W E/W WM
Sec 35 SW 1/4 of the SW 1/4 Tax Lot 603
Tax Map Number _____ Lot _____
Lat ° ' " or 45.34978835 DMS or DD
Long ° ' " or -123.15036460 DMS or DD
( ) Street address of well (●) Nearest address
NYA, NE LAUGHLIN RD, YAMHILL

(10) STATIC WATER LEVEL

	Date	SWL(psi)	+	SWL(ft)
Existing Well / Pre-Alteration				
Completed Well	5/16/2019			61

Flowing Artesian? [ ] Dry Hole? [ ]

WATER BEARING ZONES Depth water was first found 103.00

SWL Date	From	To	Est Flow	SWL(psi)	+	SWL(ft)
5/16/2019	103	259	64			61

(11) WELL LOG

Ground Elevation _____

Material	From	To
Top soil	0	3
Clay, brown and red	3	11
Same, gritty w/some gray clay	11	35
Claystone, tan w/multi colored clay	35	39
Claystone, gray w/some weathering	39	48
Claystone, gray w/sandstone strats	48	61
Sandstone, hard coarse w/some green	61	64
Same w/cemented marine rock	64	67
Claystone, gray w/cemented marine rock	67	75
Marine rock, gray w/some claystone	75	103
Claystone, gray w/marine rock layers	103	259
mixed w/sandstone, gray w/white specks	103	259
Claystone, gray	259	263
Claystone, gray w/clay, getting softer	263	281

Date Started 5/15/2019 Completed 5/16/2019

(unbonded) Water Well Constructor Certification

I certify that the work I performed on the construction, deepening, alteration, or abandonment of this well is in compliance with Oregon water supply well construction standards. Materials used and information reported above are true to the best of my knowledge and belief.

License Number 1977 Date 5/16/2019
Signed JOSE ESTRADA (E-filed)

(bonded) Water Well Constructor Certification

I accept responsibility for the construction, deepening, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon water supply well construction standards. This report is true to the best of my knowledge and belief.

License Number 1438 Date 5/22/2019
Signed DAVID PAYSINGER (E-filed)
Contact Info (optional) bluewaterdrilling.com || 503 868 7878

ORIGINAL - WATER RESOURCES DEPARTMENT

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STATE OF OREGON
WATER SUPPLY WELL REPORT
(as required by ORS 537.765 & OAR 690-205-0210)

YAMH 58189

6/11/2019

WELL I.D. LABEL# L 133658
START CARD # 1042847
ORIGINAL LOG #

(1) LAND OWNER

Owner Well I.D. 3208-3
First Name _____ Last Name _____
Company ABG OREGON VINEYARDS LLC
Address 600 UNIVERSITY ST SUITE 902
City SEATTLE State WA Zip 98101

(2) TYPE OF WORK

[X] New Well [ ] Deepening [ ] Conversion
[ ] Alteration (complete 2a & 10) [ ] Abandonment(complete 5a)

(2a) PRE-ALTERATION

	Dia	+	From	To	Gauge	Stl	Plstc	Wld	Thrd
Casing:									

	Material	From	To	Amt	sacks/lbs
Seal:					

(3) DRILL METHOD

[X] Rotary Air [ ] Rotary Mud [ ] Cable [ ] Auger [ ] Cable Mud
[ ] Reverse Rotary [ ] Other _____

(4) PROPOSED USE

[ ] Domestic [X] Irrigation [ ] Community
[ ] Industrial/ Commericial [ ] Livestock [ ] Dewatering
[ ] Thermal [ ] Injection [ ] Other _____

(5) BORE HOLE CONSTRUCTION

Special Standard [ ] (Attach copy)
Depth of Completed Well 399.00 ft.

BORE HOLE Dia	From	To	SEAL Material	From	To	Amt	sacks/lbs
10	0	58.5	Bentonite Chips	0	58.5	30	S
6	58.5	401			Calculated	27	
					Calculated		

How was seal placed: Method [ ] A [ ] B [ ] C [ ] D [ ] E
[X] Other POUR/PROBE/HYDRATE
Backfill placed from 399 ft. to 401 ft. Material CAVING SHALE
Filter pack from _____ ft. to _____ ft. Material _____ Size _____
Explosives used: [ ] Yes Type _____ Amount _____

(5a) ABANDONMENT USING UNHYDRATED BENTONITE

Proposed Amount Actual Amount

(6) CASING/LINER

Casing	Liner	Dia	+	From	To	Gauge	Stl	Plstc	Wld	Thrd
●	○	6	X	1.5	58.5	.25	●	○	X	
○	●	4		19	119	sch40	○	●		X
○	●	4		139	179	sch40	○	●		X
○	●	4		199	279	sch40	○	●		X
○	●	4		299	379	sch40	○	●		X

Shoe [ ] Inside [X] Outside [ ] Other Location of shoe(s) 58.5
Temp casing [X] Yes Dia 10 From + [X] 1 To 5

(7) PERFORATIONS/SCREENS

Perforations Method _____
Screens Type machine slotted Material PVC

Perf/ Screen	Casing/ Screen Liner	Dia	From	To	Scrn/slot width	Slot length	# of slots	Tele/ pipe size
Screen	Liner	4	119	139	.032			4
Screen	Liner	4	179	199	.032			4
Screen	Liner	4	279	299	.032			4
Screen	Liner	4	379	399	.032			4

(8) WELL TESTS: Minimum testing time is 1 hour

○ Pump ○ Bailer ◉ Air ○ Flowing Artesian

Yield gal/min	Drawdown	Drill stem/Pump depth	Duration (hr)
7.8		396	4

Temperature 54 °F Lab analysis [ ] Yes By _____
Water quality concerns? [ ] Yes (describe below) TDS amount 317 ppm

From	To	Description	Amount	Units

(9) LOCATION OF WELL (legal description)

County YAMHILL Twp 2.00 S N/S Range 4.00 W E/W WM
Sec 35 NE 1/4 of the SW 1/4 Tax Lot 101
Tax Map Number _____ Lot _____
Lat ° ' " or 45.35218601 DMS or DD
Long ° ' " or -123.14726396 DMS or DD
◉ Street address of well ○ Nearest address
17795 NE LAUGHLIN RD, YAMHILL

(10) STATIC WATER LEVEL

	Date	SWL(psi)	+	SWL(ft)
Existing Well / Pre-Alteration				
Completed Well	5/21/2019			53.5

Flowing Artesian? [ ] Dry Hole? [ ]

WATER BEARING ZONES Depth water was first found 99.00

SWL Date	From	To	Est Flow	SWL(psi)	+	SWL(ft)
5/21/2019	99	375	7.8			53.5

(11) WELL LOG

Ground Elevation _____

Material	From	To
tOP sOIL	0	3
Clay, tan/gray	3	7
Sandstone, gray and tan weathered	7	19
Claystone, gray w/sandstone layers	19	28
Sandstone, gray hard	28	31
Claystone, gray hard	31	33
Sandstone, gray w/occ claystone layers	33	41
Claystone, hard Lt/Dk gray strats	41	97
Sandstone, gray	97	103
Sandstone, hard gray w/some lavender	103	136
Claystone, gray w/lavender sandstone	136	366
Same, w/occ hard layers gray sandsone	366	375
Claystone, gray w/hard sandstone layers	375	401

Date Started 5/17/2019 Completed 5/21/2019

(unbonded) Water Well Constructor Certification

I certify that the work I performed on the construction, deepening, alteration, or abandonment of this well is in compliance with Oregon water supply well construction standards. Materials used and information reported above are true to the best of my knowledge and belief.

License Number 1977 Date 5/22/2019
Signed JOSE ESTRADA (E-filed)

(bonded) Water Well Constructor Certification

I accept responsibility for the construction, deepening, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon water supply well construction standards. This report is true to the best of my knowledge and belief.

License Number 1438 Date 5/22/2019
Signed DAVID PAYSINGER (E-filed)
Contact Info (optional) bluewaterdrilling.com || 503 868 7878

ORIGINAL - WATER RESOURCES DEPARTMENT
THIS REPORT MUST BE SUBMITTED TO THE WATER RESOURCES DEPARTMENT WITHIN 30 DAYS OF COMPLETION OF WORK Form Version:

STATE OF OREGON
WATER SUPPLY WELL REPORT
(as required by ORS 537.765 & OAR 690-205-0210)

YAMH 58191
6/11/2019

WELL I.D. LABEL# L 133659
START CARD # 1042959
ORIGINAL LOG #

(1) LAND OWNER

Owner Well I.D. 3210-5
First Name _____ Last Name _____
Company ABG OREGON VINEYARDS LLC
Address 600 UNIVERSITY ST. SUITE 902
City SEATTLE State WA Zip 98101

(2) TYPE OF WORK

[X] New Well [ ] Deepening [ ] Conversion [ ] Alteration (complete 2a & 10) [ ] Abandonment(complete 5a)

(2a) PRE-ALTERATION

	Dia	+	From	To	Gauge	Stl	Plstc	Wld	Thrd
Casing:									

	Material	From	To	Amt	sacks/lbs
Seal:					

(3) DRILL METHOD

[X] Rotary Air [ ] Rotary Mud [ ] Cable [ ] Auger [ ] Cable Mud
[ ] Reverse Rotary [ ] Other _____

(4) PROPOSED USE

[ ] Domestic [X] Irrigation [ ] Community
[ ] Industrial/ Commericial [ ] Livestock [ ] Dewatering
[ ] Thermal [ ] Injection [ ] Other _____

(5) BORE HOLE CONSTRUCTION

Special Standard [ ] (Attach copy)
Depth of Completed Well 382.00 ft.

BORE HOLE

Dia	From	To
10	0	68.5
6	68.5	382

SEAL

Material	From	To	Amt	sacks/lbs
Bentonite Chips	0	68.5	61	S
		Calculated	33	
		Calculated		

How was seal placed: Method [ ] A [ ] B [ ] C [ ] D [ ] E
[X] Other POUR/PROBE/HYDRATE
Backfill placed from _____ ft. to _____ ft. Material _____
Filter pack from _____ ft. to _____ ft. Material _____ Size _____
Explosives used: [ ] Yes Type _____ Amount _____

(5a) ABANDONMENT USING UNHYDRATED BENTONITE

Proposed Amount Actual Amount

(6) CASING/LINER

Casing	Liner	Dia	+	From	To	Gauge	Stl	Plstc	Wld	Thrd
●	○	6	X	1.5	68.5	.25	●	○	X	
○	●	4		4	104	sch40	○	●		X
○	●	4		124	184	sch40	○	●		X
○	●	4		204	284	sch40	○	●		X
○	●	4		304	364	sch40	○	●		X

Shoe [ ] Inside [X] Outside [ ] Other Location of shoe(s) 68.5
Temp casing [X] Yes Dia 10 From + [X] 1 To 5

(7) PERFORATIONS/SCREENS

Perforations Method _____
Screens Type machine slot Material PVC

Perf/ Screen	Casing/ Screen Liner	Dia	From	To	Scrn/slot width	Slot length	# of slots	Tele/ pipe size
Screen	Liner	4	104	124	.032			4
Screen	Liner	4	184	204	.032			4
Screen	Liner	4	284	304	.032			4
Screen	Liner	4	364	382	.032			4

(8) WELL TESTS: Minimum testing time is 1 hour

( ) Pump ( ) Bailer (●) Air ( ) Flowing Artesian

Yield gal/min	Drawdown	Drill stem/Pump depth	Duration (hr)
4		380	4

Temperature 54 °F Lab analysis [ ] Yes By _____
Water quality concerns? [ ] Yes (describe below) TDS amount 525 ppm

From	To	Description	Amount	Units

(9) LOCATION OF WELL (legal description)

County YAMHILL Twp 2.00 S N/S Range 4.00 W E/W WM
Sec 35 NE 1/4 of the SW 1/4 Tax Lot 101
Tax Map Number _____ Lot _____
Lat ____ ° ____ ' ____ " or 45.35097211 DMS or DD
Long ____ ° ____ ' ____ " or -123.14893766 DMS or DD
(●) Street address of well ( ) Nearest address
17795 NE LAUGHLIN RD, YAMHILL

(10) STATIC WATER LEVEL

	Date	SWL(psi)	+	SWL(ft)
Existing Well / Pre-Alteration				
Completed Well	5/29/2019			73

Flowing Artesian? [ ] Dry Hole? [ ]

WATER BEARING ZONES Depth water was first found 78.00

SWL Date	From	To	Est Flow	SWL(psi)	+	SWL(ft)
5/29/2019	78	339	4			73

(11) WELL LOG

Ground Elevation _____

Material	From	To
Top soil	0	3
Clay, brown w/some red	3	6
Clay, tan w/some red and blue	6	34
Claystone, gray w/sandstone,siltstone	34	175
Marine rock, gray coarse	175	263
Claystone, gray w/sandstone layers	263	339
Claystone, gray w/more&more gray clay	339	382

Date Started 5/23/2019 Completed 5/29/2019

(unbonded) Water Well Constructor Certification

I certify that the work I performed on the construction, deepening, alteration, or abandonment of this well is in compliance with Oregon water supply well construction standards. Materials used and information reported above are true to the best of my knowledge and belief.

License Number 1977 Date 5/30/2019
Signed JOSE ESTRADA (E-filed)

(bonded) Water Well Constructor Certification

I accept responsibility for the construction, deepening, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon water supply well construction standards. This report is true to the best of my knowledge and belief.

License Number 1438 Date 5/30/2019
Signed DAVID PAYSINGER (E-filed)
Contact Info (optional) bluewaterdrilling.com || 503 868 7878

ORIGINAL - WATER RESOURCES DEPARTMENT

THIS REPORT MUST BE SUBMITTED TO THE WATER RESOURCES DEPARTMENT WITHIN 30 DAYS OF COMPLETION OF WORK Form Version:

PUBLIC INTEREST REVIEW FOR GROUNDWATER APPLICATIONS

TO: Water Rights Section Date November 18, 2019

FROM: Groundwater Section Karl Wozniak
Reviewer's Name

SUBJECT: Application G- 18859 Supersedes review of _____
Date of Review(s)

PUBLIC INTEREST PRESUMPTION; GROUNDWATER

OAR 690-310-130 (1) *The Department shall presume that a proposed groundwater use will ensure the preservation of the public welfare, safety and health as described in ORS 537.525.* Department staff review groundwater applications under OAR 690-310-140 to determine whether the presumption is established. OAR 690-310-140 allows the proposed use be modified or conditioned to meet the presumption criteria. **This review is based upon available information and agency policies in place at the time of evaluation**.

A. GENERAL INFORMATION:

Applicant's Name: **ABG Vineyards, LLC** County: **Yamhill**

A1. Applicant(s) seek(s) 0.165 cfs from 4 well(s) in the Willamette Basin, North Yamhill River subbasin

A2. Proposed use Irrigation Seasonality: March 1 – September 30

A3. Well and aquifer data (**attach and number logs for existing wells; mark proposed wells as such under logid**):

Well	Logid	Applicant's Well #	Proposed Aquifer*	Proposed Rate(cfs)	Location (T/R-S QQ-Q)	Location, metes and bounds, e.g. 2250' N, 1200' E fr NW cor S 36
1	YAMH 58187	1	Low-yield bedrock	0.165	2S/4W-35 NE/SW	1595' N, 1300' E fr SW cor S 35
2	YAMH 58188	2	Low-yield bedrock	0.165	2S/4W-35 SW/SW	1820' N, 1600' E fr SW cor S 35
3	YAMH 58189	3	Low-yield bedrock	0.165	2S/4W-35 NE/SW	1595' N, 1300' E fr SW cor S 35
4	YAMH 58191	5	Low-yield bedrock	0.165	2S/4W-35 NE/SW	1435' N, 1180' E fr SW cor S 35
5						

* Alluvium, CRB, Bedrock

Well	Well Elev ft msl	First Water ft bls	SWL ft bls	SWL Date	Well Depth (ft)	Seal Interval (ft)	Casing Intervals (ft)	Liner Intervals (ft)	Perforations Or Screens (ft)	Well Yield (gpm)	Draw Down (ft)	Test Type
1	347	183	76	05/14/2019	238	0-78	0-78	18-238	118-138 218-238	11.2	NA	A
2	342	103	61	05/16/2019	281	0-78	0-78	2-271	Multiple 102-281	64	NA	A
3	347	99	53.5	05/21/2019	401	0-58.5	0-58.5	19-399	Multiple 119-399	7.8	NA	A
4	345	78	73	05/29/2019	382	0-68.5	0-68.5	4-382	Multiple 104-382	4	NA	A

Use data from application for proposed wells.

A4. **Comments:** The proposed maximum rate of 0.165 cfs (74 gpm) is evaluated at each well.

A5. ☒ **Provisions of the** Willamette Basin rules relative to the development, classification and/or management of groundwater hydraulically connected to surface water ☐ **are**, *or* ☒ **are not**, activated by this application. (Not all basin rules contain such provisions.)
Comments: The wells produce from a confined aquifer so the pertinent basin rules (OAR 690-502-0240) do not apply.

A6. ☐ **Well(s) #** _____, _____, _____, _____, _____, tap(s) an aquifer limited by an administrative restriction.
Name of administrative area: _____
Comments: _____

B. GROUNDWATER AVAILABILITY CONSIDERATIONS, OAR 690-310-130, 400-010, 410-0070

B1. **Based upon available data**, I have determined that groundwater* for the proposed use:

a. ☐ **is** over appropriated, ☐ **is not** over appropriated, *or* ☒ **cannot be determined to be** over appropriated during any period of the proposed use. * This finding is limited to the groundwater portion of the over-appropriation determination as prescribed in OAR 690-310-130;

b. ☐ **will not** *or* ☐ **will** likely be available in the amounts requested without injury to prior water rights. * This finding is limited to the groundwater portion of the injury determination as prescribed in OAR 690-310-130;

c. ☐ **will not** *or* ☐ **will** likely to be available within the capacity of the groundwater resource; or

d. ☒ **will, if properly conditioned**, avoid injury to existing groundwater rights or to the groundwater resource:
   i. ☒ The permit should contain condition #(s) **7N, medium water-use reporting, 1 acre foot/acre duty, and the use of drip, or equally efficient, irrigation methods.**;
   ii. ☐ The permit should be conditioned as indicated in item 2 below.
   iii. ☐ The permit should contain special condition(s) as indicated in item 3 below;

B2. a. ☐ **Condition** to allow groundwater production from no deeper than _____ ft. below land surface;

b. ☐ **Condition** to allow groundwater production from no shallower than _____ ft. below land surface;

c. ☐ **Condition** to allow groundwater production only from the _____ groundwater reservoir between approximately_____ ft. and_____ ft. below land surface;

d. ☐ **Well reconstruction** is necessary to accomplish one or more of the above conditions. The problems that are likely to occur with this use and without reconstructing are cited below. Without reconstruction, I recommend withholding issuance of the permit until evidence of well reconstruction is filed with the Department and approved by the Groundwater Section.

Describe injury –as related to water availability– that is likely to occur without well reconstruction (interference w/ senior water rights, not within the capacity of the resource, etc): _____

_____

B3. **Groundwater availability remarks:** The applicant proposes to use 4 existing wells to drip irrigate 116.8 acres of vineyards at a maximum rate of 0.165 cfs (74 gpm). The wells are located on a ridgeline North of Stag Hollow Creek and west of an unnamed tributary to Stag Hollow Creek in the North Yamhill watershed. All of the wells are completed in the Yamhill Formation which is part of the low-yield bedrock aquifer system that consists of Tertiary marine sedimentary and volcanic rocks. Productive zones in the unit are likely to be water-bearing fractures and considerable anisotropy is expected in the aquifer. The low-yield unit is characterized by low permeability, low porosity, low well yield, and excessive pumping drawdowns and is generally not capable of producing sustainable yields for irrigation of high water-use crops. The OWRD well log database indicates a median well yield of 6.5 gpm in sections 34 & 35 (T 3S/4W) and a distribution that is highly skewed toward lower values. Actual yields are likely to be lower since most of the reported yields are based on air tests which tend to overestimate yields in completed wells. Air tests in the 4 subject wells ranged from 4-64 gpm with a median value of 9.5 gpm and a total air test production of 87 gpm.

The nearest observation wells are located just beyond a mile from the subject wells and show stable water levels over recent decades. Irrigation well density is quite low in the area; however, YAMH 1549, the source well listed on Groundwater Registration GR-1549, is located about 800 feet of the west of the closest well on the application and some degree of interference is likely. Domestic well density is also low within the general area (only 32 wells of record in sections 35 & 35) but there are a half-dozen or so tax lots within ½ mile that are likely associated with houses that depend on domestic well water. Although the likely anisotropy of the aquifer makes it difficult to predict the potential for interference with existing wells, the general low yield of the aquifer and the relatively large combined yield of the 4 subject wells indicate that it would be prudent to include water-level monitoring and water-use monitoring conditions. For the same reasons, condition are recommended to limit the maximum duty to 1 acre foot per acre per year (the equivalent of about 0.161 cfs of continual, year-round pumping) and a requirement to use drip, or equally efficient, irrigation methods if a permit is issued (see OAR 690-502-0040(7).

C. GROUNDWATER/SURFACE WATER CONSIDERATIONS, OAR 690-09-040

C1. **690-09-040 (1):** Evaluation of aquifer confinement:

Well	Aquifer or Proposed Aquifer	Confined	Unconfined
1	**Low-yield bedrock aquifer**	☒	☐
2	**Low-yield bedrock aquifer**	☒	☐
3	**Low-yield bedrock aquifer**	☒	☐
4	**Low-yield bedrock aquifer**	☒	☐
		☐	☐

Basis for aquifer confinement evaluation: Well logs generally indicate static water levels above the producing zones in the low-yield aquifer system. Experience indicates some degree of confinement.

C2. **690-09-040 (2) (3):** Evaluation of distance to, and hydraulic connection with, surface water sources. All wells located a horizontal distance less than ¼ mile from a surface water source that produce water from an unconfined aquifer shall be assumed to be hydraulically connected to the surface water source. Include in this table any streams located beyond one mile that are evaluated for PSI.

Well	SW #	Surface Water Name	GW Elev ft msl	SW Elev ft msl	Distance (ft)	Hydraulically Connected? YES	NO	ASSUMED	Potential for Subst. Interfer. Assumed? YES	NO
1	**1**	**Unnamed trib to Stag Hollow Cr**			**2130**	☒	☐	☐	☐	☒
2	**1**	**Unnamed trib to Stag Hollow Cr**			**2350**	☒	☐	☐	☐	☒
3	**1**	**Unnamed trib to Stag Hollow Cr**			**1990**	☒	☐	☐	☐	☒
4	**1**	**Unnamed trib to Stag Hollow Cr**			**2190**	☒	☐	☐	☐	☒
1	**2**	**Stag Hollow Creek**			**2890**	☒	☐	☐	☐	☒
2	**2**	**Stag Hollow Creek**			**2490**	☒	☐	☐	☐	☒
3	**2**	**Stag Hollow Creek**			**3230**	☒	☐	☐	☐	☒
4	**2**	**Stag Hollow Creek**			**2700**	☒	☐	☐	☐	☒

Basis for aquifer hydraulic connection evaluation: Water levels in local wells in the bedrock uplands (above stream levels) show hydraulic heads that are above local stream levels. This is consistent with general observations and published reports in the Willamette basin that indicate that the water table in the low-yield bedrock aquifer system generally mimics topography and discharges to local streams. The subject wells are within 1 mile of Stag Hollow Creek and an unnamed tributary to Stag Hollow creek and just beyond 1 mile of Yamhill Creek, all of which are shown as perennial streams on USGS 7.5-minute topographic maps. Only the unnamed tributary to Stag Hollow Creek is evaluated in table C3a as it is the nearest limiting stream.

Water Availability Basin the well(s) are located within: N YAMHILL R > YAMHILL R - AT MOUTH (Watershed ID # 70746).

C3a. **690-09-040 (4):** Evaluation of stream impacts for each well that has been determined or assumed to be **hydraulically connected and less than 1 mile** from a surface water source. Limit evaluation to instream rights and minimum stream flows that are pertinent to that surface water source, and not lower SW sources to which the stream under evaluation is tributary. Compare the requested rate against the 1% of 80% *natural* flow for the pertinent Water Availability Basin (WAB). If Q is not distributed by well, use full rate for each well. Any checked ☒ box indicates the well is assumed to have the potential to cause PSI.

Well	SW #	Well < ¼ mile?	Qw > 5 cfs?	Instream Water Right ID	Instream Water Right Q (cfs)	Qw > 1% ISWR?	80% Natural Flow (cfs)	Qw > 1% of 80% Natural Flow?	Interference @ 30 days (%)	Potential for Subst. Interfer. Assumed?
1	**1**	☐	☐			☐	**0.166**	☐		☐
2	**1**	☐	☐			☐	**0.166**	☐		☐
3	**1**	☐	☐			☐	**0.166**	☐		☐
4	**1**	☐	☐			☐	**0.166**	☐		☐
		☐	☐			☐		☐		☐
		☐	☐			☐		☐		☐

C3b. **690-09-040 (4):** Evaluation of stream impacts by total appropriation for all wells determined or assumed to be **hydraulically connected and less than 1 mile** from a surface water source. **Complete only if Q is distributed among wells**. Otherwise same evaluation and limitations apply as in C3a above.

	SW #		Qw > 5 cfs?	Instream Water Right ID	Instream Water Right Q (cfs)	Qw > 1% ISWR?	80% Natural Flow (cfs)	Qw > 1% of 80% Natural Flow?	Interference @ 30 days (%)	Potential for Subst. Interfer. Assumed?
			☐			☐		☐		☐
			☐			☐		☐		☐
			☐			☐		☐		☐
			☐			☐		☐		☐

Comments: Interference @ 30 days was not calculated in Table C3a because of the lack of a readily available suitable model for fractured bedrock aquifer systems and a lack of knowledge about likely anisotropy in the low-yield bedrock aquifer system.

C4a. **690-09-040 (5):** Estimated impacts on **hydraulically connected surface water sources greater than one mile** as a percentage of the proposed pumping rate. Limit evaluation to the effects that will occur up to one year after pumping begins. This table encompasses the considerations required by 09-040 (5)(a), (b), (c) and (d), which are not included on this form. Use additional sheets if calculated flows from more than one WAB are required.

Non-Distributed Wells													
Well	SW#	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q as CFS													
Interference CFS													
Distributed Wells													
Well	SW#	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q as CFS													
Interference CFS													
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q as CFS													
Interference CFS													
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q as CFS													
Interference CFS													
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q as CFS													
Interference CFS													
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q as CFS													
Interference CFS													
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q as CFS													
Interference CFS													
(A) = Total Interf.													
(B) = 80 % Nat. Q													
(C) = 1 % Nat. Q													
(D) = (A) > (C)		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
(E) = (A / B) x 100		%	%	%	%	%	%	%	%	%	%	%	%

(A) = total interference as CFS; (B) = WAB calculated natural flow at 80% exceed. as CFS; (C) = 1% of calculated natural flow at 80% exceed. as CFS; (D) = highlight the checkmark for each month where (A) is greater than (C); (E) = total interference divided by 80% flow as percentage.

Basis for impact evaluation: All impacts are expected to be with local streams within 1 mile. Also, the maximum proposed rate of pumping, 0.165 cfs, will not exceed 1% of the natural stream flow in any month of the year.

C4b. **690-09-040 (5) (b) The potential to impair or detrimentally affect the public interest is to be determined by the Water Rights Section.**

C5. ☐ **If properly conditioned**, the surface water source(s) can be adequately protected from interference, and/or groundwater use under this permit can be regulated if it is found to substantially interfere with surface water:

i. ☐ The permit should contain condition #(s)_____;

ii. ☐ The permit should contain special condition(s) as indicated in "Remarks" below;

C6. **SW / GW Remarks and Conditions:**

References Used:

Conlon, T.D., Wozniak, K.C., Woodcock, D., Herrera, N.B., Fisher, B.J., Morgan, D.S., Lee, K.K., and Hinkle, S.R., 2005, Ground-water hydrology of the Willamette Basin, Oregon: U.S. Geological Survey Scientific Investigations Report 2005-5168.

Gannett, M.W. and Caldwell, R., 1998, Geologic framework of the Willamette Lowland aquifer system, Oregon and Washington: U.S. Geological Survey Professional Paper 1424-A, 32 p.

O'Connor, J.E., Sarna-Wojcicki, A., Wozniak, K.C., Polette, D.J., and Fleck, R.J., 2001: U.S. Geological Survey Professional Paper 1620.

Woodward, D.G., Gannett, M.W., and Vaccaro, J.J., 1998, Hydrogeologic framework of the Willamette Lowland aquifer system, Oregon and Washington: U.S. Geological Survey Professional Paper 1424-B, 82p.

Frank, F.J., and Collins, C.A., 1978, Groundwater in the Newberg area, northern Willamette Valley, Oregon: Oregon Water Resources Department Groundwater Report No. 27, 77p.

D. WELL CONSTRUCTION, OAR 690-200

D1. **Well #:** _____ **Logid:** _____

D2. **THE WELL does not appear to meet current well construction standards based upon:**

a. ☐ review of the well log;
b. ☐ field inspection by _____;
c. ☐ report of CWRE _____;
d. ☐ other: (specify) _____

_____

D3. **THE WELL construction deficiency or other comment is described as follows:** _____

_____

_____

_____

_____

D4. ☐ **Route to the Well Construction and Compliance Section for a review of existing well construction.**

Water Availability Tables

N YAMHILL R > YAMHILL R - AT MOUTH
WILLAMETTE BASIN

Water Availability as of 11/15/2019

Watershed ID #: 70746 (Map)
Date: 11/15/2019

Exceedance Level: 80%
Time: 1:55 PM

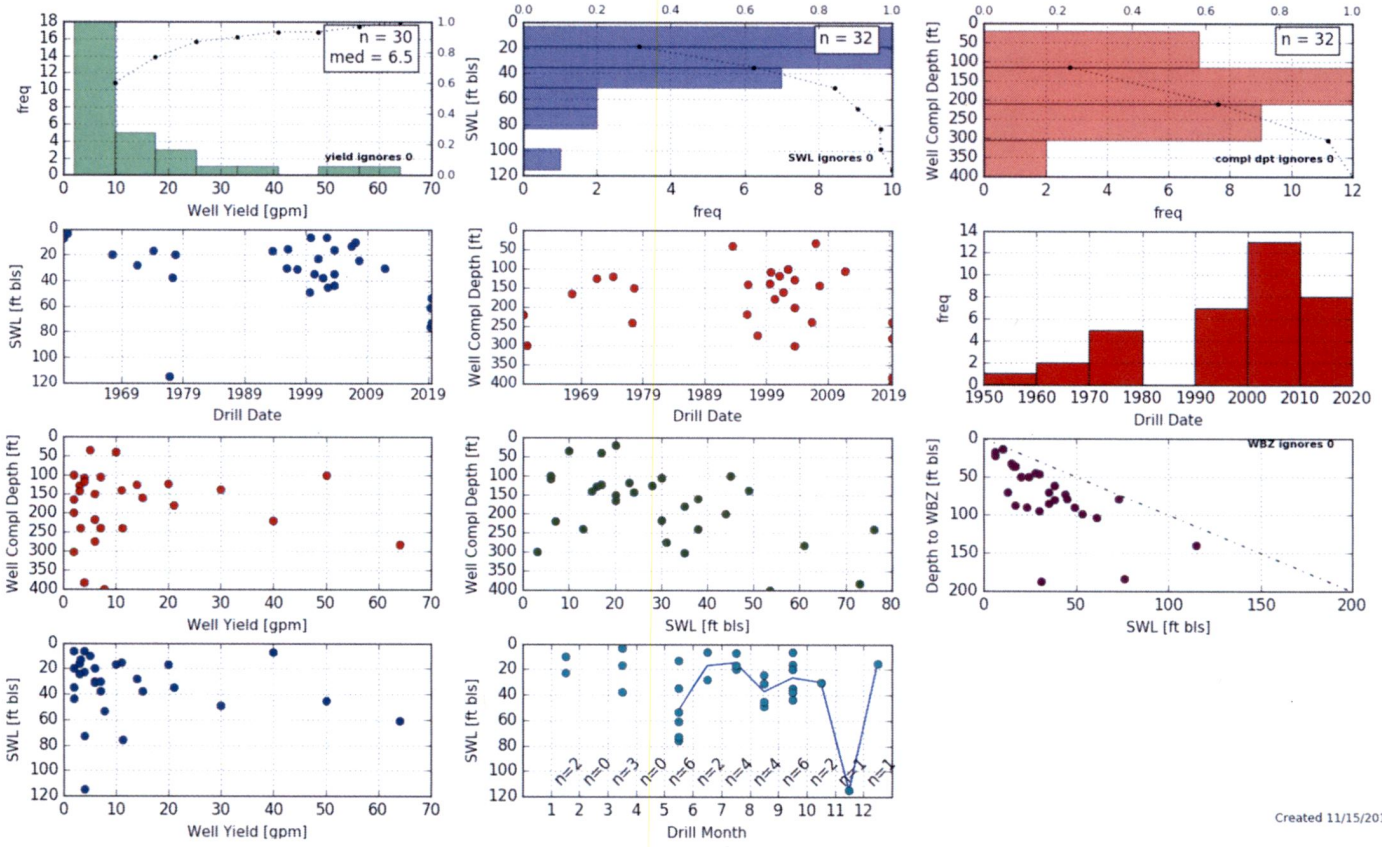
Water Availability Calculation | Consumptive Uses and Storages | Instream Flow Requirements | Reservations
Water Rights | Watershed Characteristics

Water Availability Calculation

Monthly Streamflow in Cubic Feet per Second
Annual Volume at 50% Exceedance in Acre-Feet

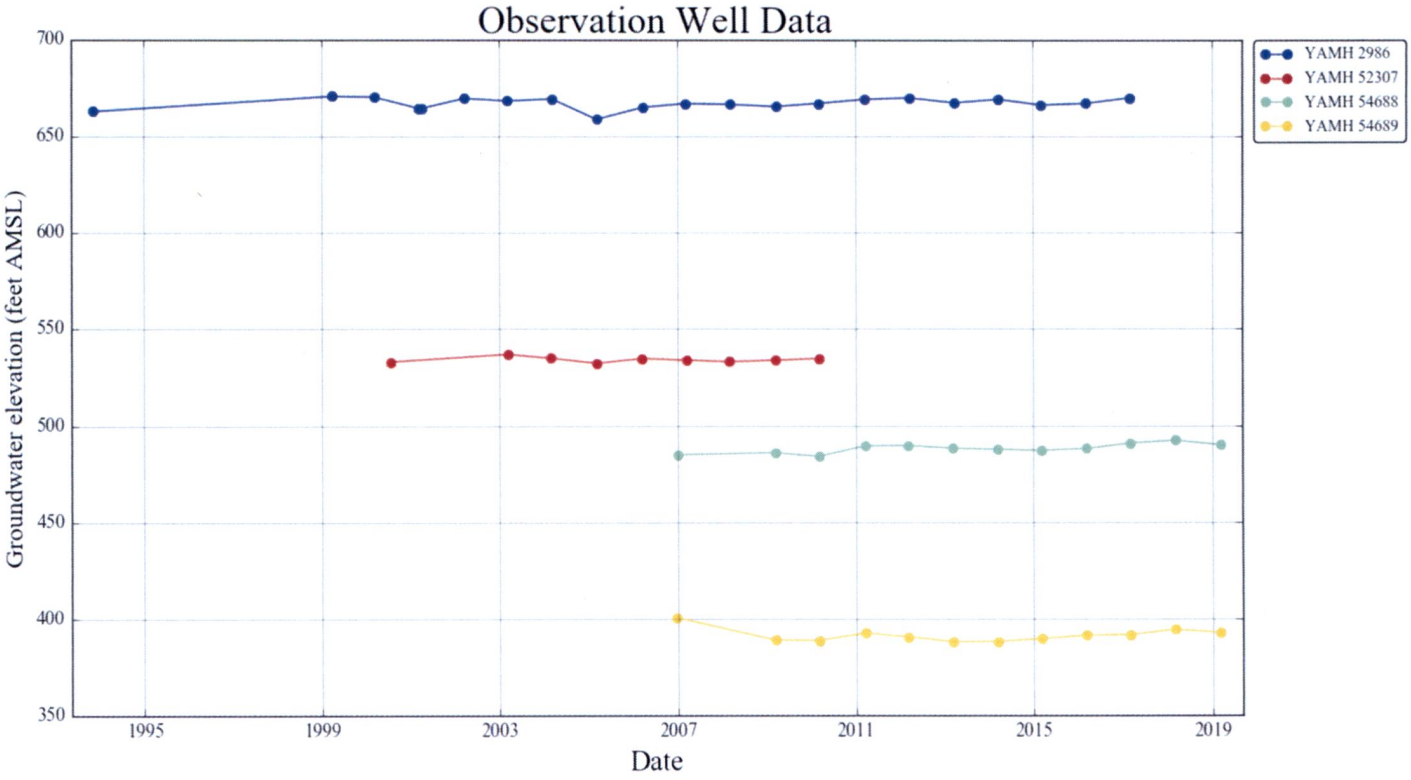
Month	Natural Stream Flow	Consumptive Uses and Storages	Expected Stream Flow	Reserved Stream Flow	Instream Flow Requirement	Net Water Available
JAN	395.00	32.30	363.00	0.00	70.00	293.00
FEB	485.00	32.90	452.00	0.00	70.00	382.00
MAR	379.00	24.50	354.00	0.00	70.00	284.00
APR	240.00	25.40	215.00	0.00	70.00	145.00
MAY	124.00	24.50	99.50	0.00	70.00	29.50
JUN	63.60	27.60	36.00	0.00	40.00	-4.04
JUL	30.70	32.00	-1.34	0.00	15.00	-16.30
AUG	22.70	29.70	-7.01	0.00	10.00	-17.00
SEP	17.40	23.20	-5.78	0.00	10.00	-15.80
OCT	16.60	15.40	1.20	0.00	10.00	-8.80
NOV	68.90	22.10	46.80	0.00	70.00	-23.20
DEC	338.00	31.70	306.00	0.00	70.00	236.00
ANN	249,000.00	19,400.00	230,000.00	0.00	34,600.00	196,000.00

Well Statistics, Sections 34-35, T2S/4W



Version: 05/07/2018

Water-Level Trends in Nearby Wells



Well Location Map