

Approved: 

# MEMO

**To:** Kristopher Byrd, Well Construction and Compliance Section Manager  
**From:** Travis Kelly, Well Construction Compliance Coordinator  
**Subject:** Review of Water Right Application G-19069  
**Date:** January 6, 2022

The attached application was forwarded to the Well Construction and Compliance Section by the Groundwater Section. Mike Thoma reviewed the application. Please see Mike's Groundwater Review and the Well Reports.

Applicant's Well #1 (DESC 52523): 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 (DESC 59987): Based on a review of the Well Reports, Applicant's Well #2 seems to protect the groundwater resource.

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

Applicant's Well #3 (DESC 59434): 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 Well #4 (DESC 58486): Based on a review of the Well Report, Applicant's Well #4 seems to protect the groundwater resource.

The construction of Applicant's Well #4 may not satisfy hydraulic connection issues.

RECEIVED

Desc  
52523

AUG 02 1999

STATE OF OREGON  
WATER SUPPLY WELL REPORT

(as required by ORS 537.765)

WATER RESOURCES DEPT.  
SALEM, OREGON

WELL I.D. # L20423

START CARD # 110008

Instructions for completing this report are on the last page of this form.

(1) OWNER: Well Number #1  
Name JAMES E. BUSSARD  
Address 15 SW COLORADO AVE # C  
City BEND State OR Zip 97702

(2) TYPE OF WORK  
 New Well  Deepening  Alteration (repair/recondition)  Abandonment

(3) DRILL METHOD:  
 Rotary Air  Rotary Mud  Cable  Auger  
 Other

(4) PROPOSED USE:  
 Domestic  Community  Industrial  Irrigation  
 Thermal  Injection  Livestock  Other

(5) BORE HOLE CONSTRUCTION:  
Special Construction approval  Yes  No Depth of Completed Well 362 ft.  
Explosives used  Yes  No Type - Amount -

HOLE			SEAL			
Diameter	From	To	Material	From	To	Sacks or pounds
12	0	18	BENTONITE	0	18	9 SACKS
8	18	370				

How was seal placed: Method  A  B  C  D  E  
 Other POURED DOWN DRY  
Backfill placed from \_\_\_ ft. to \_\_\_ ft. Material \_\_\_  
Gravel placed from \_\_\_ ft. to \_\_\_ ft. Size of gravel \_\_\_

(6) CASING/LINER:

	Diameter	From	To	Gauge	Steel	Plastic	Welded	Threaded
Casing:	8	+2	23	250	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Liner:	6	-2	362	188	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Final location of shoe(s)

(7) PERFORATIONS/SCREENS:

Perforations Method MACHINE CUT  
 Screens Type SLOT Material STEEL

From	To	Slot size	Number	Diameter	Tele/pipe size	Casing	Liner
322	362	1/8x4	480	6"	-	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

<input type="checkbox"/> Pump	<input type="checkbox"/> Bailer	<input checked="" type="checkbox"/> Air	Flowing
Yield gal/min	Drawdown	Drill stem at	Artesian
40	0	368	1 hr.

Temperature of water 54° Depth Artesian Flow Found  
Was a water analysis done?  Yes By whom  
Did any strata contain water not suitable for intended use?  Too little  
 Salty  Muddy  Odor  Colored  Other  
Depth of strata: \_\_\_\_\_

(9) LOCATION OF WELL by legal description:  
County DESCHUTES Latitude \_\_\_\_\_ Longitude \_\_\_\_\_  
Township 17 N or S Range 11 E or W. WM.  
Section 22 NE 1/4 NW 1/4  
Tax Lot 00-2724 Lot \_\_\_\_\_ Block \_\_\_\_\_ Subdivision \_\_\_\_\_  
Street Address of Well (or nearest address) \_\_\_\_\_  
BULL SPRINGS-TREE FARM-OFF SHEVLIN PARK RD

(10) STATIC WATER LEVEL:  
271 ft. below land surface. Date 7-24-99  
Artesian pressure - lb. per square inch. Date -

(11) WATER BEARING ZONES:  
Depth at which water was first found 345'

From	To	Estimated Flow Rate	SWL
345	365	40+GPM	271

(12) WELL LOG:  
Ground Elevation \_\_\_\_\_

Material	From	To	SWL
SANDY SOIL & GRAVEL	0	12	
TAN SS	12	16	
tan SS CONG	16	70	
WHITE PUMICE	70	100	
TAN SS	100	110	
RED SS	110	195	
RED LAVA CONG	195	225	
BROWN SS	225	260	
GREY LAVA-BROKEN	260	345	
VESICULAR GRAVELS	345	348	271
GREY BASALT-BROKEN	348	365	
TAN CONG	365	370	

Date started 7-20-99 Completed 7-24-99

(unbonded) Water Well Constructor Certification:  
I certify that the work I performed on the construction, 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.  
WWC Number \_\_\_\_\_  
Signed \_\_\_\_\_ Date \_\_\_\_\_

(bonded) Water Well Constructor Certification:  
I accept responsibility for the construction, 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.  
WWC Number 1556  
Signed David Smith Date 7-26-99

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

DESC 59987

WELL I.D. LABEL# L

114526

START CARD #

1023292

6/11/2014

ORIGINAL LOG #

(1) LAND OWNER

Owner Well I.D.
First Name JAMES Last Name VERHEYDEN
Company
Address 18400 BULL SPRINGS RD
City BEND State OR Zip 97701

(2) TYPE OF WORK

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

(2a) PRE-ALTERATION

Casing: Dia + From To Gauge Stl Plstc Wld Thrld
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

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

(5) BORE HOLE CONSTRUCTION

Depth of Completed Well 414.00 ft. Special Standard [ ] (Attach copy)

Table with columns: Dia, From, To, Material, SEAL, Amt, lbs. Row 1: 12, 0, 38.5, Bentonite Chips, 0, 38.5, 48, S. Row 2: 8, 38.5, 414.

How was seal placed: Method [ ] A [ ] B [ ] C [ ] D [ ] E

[X] Other POURED DRY

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

Table with columns: Casing, Liner, Dia, From, To, Gauge, Stl, Plstc, Wld, Thrld. Row 1: 8, 1.5, 38.5, .250, [X]. Row 2: 6, 3, 414, .188, [X].

Shoe [ ] Inside [ ] Outside [ ] Other Location of shoe(s)

Temp casing [ ] Yes Dia From To

(7) PERFORATIONS/SCREENS

Perforations Method AIR PERFERATOR

Screens Type Material

Table with columns: Perf/ Screen, Casing/ Screen, Dia, From, To, Scrn/slot width, Slot length, # of slots, Tele/ pipe size. Row 1: 6, 395, 410, .125, 2, 360.

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

[ ] Pump [ ] Bailer [X] Air [ ] Flowing Artesian

Table with columns: Yield gal/min, Drawdown, Drill stem/Pump depth, Duration (hr). Row 1: 50, 400, 1.

Temperature 51 °F Lab analysis [ ] Yes By

Water quality concerns? [ ] Yes (describe below) TDS amount

Table with columns: From, To, Description, Amount, Units.

(9) LOCATION OF WELL (legal description)

County DESCHUTES Twp 17.00 S N/S Range 11.00 E E/W WM

Sec 16 NE 1/4 of the SE 1/4 Tax Lot 4306

Tax Map Number Lot

Lat " or 44.09886111 DMS or DD

Long " or -121.40505556 DMS or DD

[X] Street address of well [ ] Nearest address

18400 BULL SPRINGS RD

(10) STATIC WATER LEVEL

Table with columns: Existing Well / Pre-Alteration, Date, SWL(psi), SWL(ft). Row 1: 6/4/2014, 325.

Flowing Artesian? [ ] Dry Hole? [ ]

WATER BEARING ZONES

Depth water was first found 370.00

SWL Date From To Est Flow SWL(psi) + SWL(ft)

Table with columns: SWL Date, From, To, Est Flow, SWL(psi), SWL(ft). Row 1: 6/4/2014, 370, 414, 50, 325.

(11) WELL LOG

Ground Elevation 3728.00

Table with columns: Material, From, To. Rows include SAND PUMICE, LAVA BROKEN, CINDER, BASAL CINDERS BROKEN, LAVA GRAY HARD, CINDERS CONGLOMERATE, SANDSTONE CONGLOMERATE BROWN, BASALT, SANDSTONE BROWN, GRAVELS SAND.

Date Started 6/2/2014 Complete 6/4/2014

(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 758 Date 6/11/2014

Signed THOMAS R PECK (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 1720 Date 6/11/2014

Signed JACK ABBAS (E-filed)

Contact Info (optional)

STATE OF OREGON

WATER SUPPLY WELL REPORT

(as required by ORS 537.765 & OAR 690-205-0210)

04-09-2012

WELL LABEL # L 108428

START CARD # 1016137

(1) LAND OWNER Owner Well I.D. First Name KAYLE Last Name GARCIA Company Address P O BOX 7899 City KENT State WA Zip 98042

(2) TYPE OF WORK [X] New Well [ ] Deepening [ ] Conversion [ ] Alteration (repair/recondition) [ ] Abandonment

(3) DRILL METHOD [X] Rotary Air [ ] Rotary Mud [ ] Cable [ ] Auger [ ] Cable Mud [ ] Reverse Rotary [ ] Other

(4) PROPOSED USE [X] Domestic [ ] Irrigation [ ] Community [ ] Industrial/ Commercial [ ] Livestock [ ] Dewatering [ ] Thermal [ ] Injection [ ] Other

(5) BORE HOLE CONSTRUCTION Special Standard [ ] (Attach copy) Depth of Completed Well 430.00 ft.

Table with columns: Dia, From, To, Material, SEAL, Amt, lbs. Row 1: 12, 0, 22, Bentonite, 0, 22, 30, S. Row 2: 8, 22, 430.

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

(6) CASING/LINER Table with columns: Casing, Liner, Dia, From, To, Gauge, Stl, Plstc, Wld, Thrd. Row 1: 8, 1, 22, .250. Row 2: 6, 10, 430, .188.

Shoe [ ] Inside [ ] Outside [ ] Other Location of shoe(s) Temp casing [ ] Yes Dia From To

(7) PERFORATIONS/SCREENS Perforations Method FACTORY Screens Type Material

Table with columns: Perf, Casing/Screen, Liner, Dia, From, To, Scrn/slot width, Slot length, # of slots, Tele/pipe size. Row 1: 6, 410, 430, .125, 3, 228.

(8) WELL TESTS: Minimum testing time is 1 hour [ ] Pump [ ] Bailer [X] Air [ ] Flowing Artesian Yield gal/min Drawdown Drill stem/Pump depth Duration (hr)

Table with columns: From, To, Description, Amount, Units. Row 1: 20, 430, 1.

(9) LOCATION OF WELL (legal description) County Deschutes Twp 17.00 S N/S Range 11.00 E E/W WM Sec 16 SE 1/4 of the NE 1/4 Tax Lot 4301

63250 FOREST SERVICE 4606

(10) STATIC WATER LEVEL Date SWL(psi) + SWL(ft) Existing Well / Predeepening Completed Well 04-04-2012 360

WATER BEARING ZONES Table with columns: SWL Date, From, To, Est Flow, SWL(psi), + SWL(ft). Row 1: 04-04-2012, 402, 430, 20, 360.

(11) WELL LOG Ground Elevation Material From To PUMICE 0 3 RED CINDERS 3 16 GRAY LAVA 16 58 BROWN SANDSTONE 58 402 FRACTURED BASALT 402 430

Date Started 04-04-2012 Completed 04-04-2012

(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.

License Number 1852 Date 04-09-2012 Electronically Filed Signed JEB W ABBAS (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.

License Number 1720 Date 04-09-2012 Electronically Filed Signed JACK ABBAS (E-filed) Contact Info (optional)

Amended

STATE OF OREGON

WATER SUPPLY WELL REPORT

(as required by ORS 537.765 & OAR 690-205-0210)

WELL LABEL # L 96134

START CARD # 1001146

(1) LAND OWNER Owner Well I.D. \_\_\_\_\_

First Name JAMES Last Name VERHEYDEN
Company
Address 61848 FALLCREEK LOOP
City BEND State OR Zip 97701

(2) TYPE OF WORK [X] New Well [ ] Deepening [ ] Conversion
[ ] Alteration (repair/recondition) [ ] Abandonment

(3) DRILL METHOD
[X] Rotary Air [ ] Rotary Mud [ ] Cable [ ] Auger [ ] Cable Mud
[ ] Reverse Rotary [ ] Other

(4) PROPOSED USE [X] Domestic [ ] Irrigation [ ] Community
[ ] Industrial/ Commercial [ ] Livestock [ ] Dewatering
[ ] Thermal [ ] Injection [ ] Other

(5) BORE HOLE CONSTRUCTION Special Standard [ ] (Attach copy)
Depth of Completed Well 308 ft.

Table with columns: Dia, From, To, Material, SEAL, To, Amt, sacks/lbs. Includes data for Cement at 0-99 ft and 99-308 ft.

How was seal placed: Method [ ] A [ ] B [X] C [ ] D [ ] E

Backfill placed from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Material \_\_\_\_\_

Filter pack from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Material \_\_\_\_\_ Size \_\_\_\_\_

Explosives used: [ ] Yes Type \_\_\_\_\_ Amount \_\_\_\_\_

(6) CASING/LINER

Table with columns: Casing/Liner, Dia, From, To, Gauge, Stl, Plstc, Wld, Thrd. Includes data for 10" and 8" casings.

Shoe [ ] Inside [ ] Outside [ ] Other Location of shoe(s) \_\_\_\_\_

Temp casing [ ] Yes Dia \_\_\_\_\_ From \_\_\_\_\_ To \_\_\_\_\_

(7) PERFORATIONS/SCREENS

Perforations Method Machine \_\_\_\_\_

Screens Type \_\_\_\_\_ Material \_\_\_\_\_

Table with columns: Perf/S, Casing/Screen, Dia, From, To, Scrn/slot width, Slot length, # of slots, Tele/pipe size. Includes data for 8" casing with 3 slots.

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

[X] Pump [ ] Bailer [ ] Air [ ] Flowing Artesian

Table with columns: Yield gal/min, Drawdown, Drill stem/Pump depth, Duration (hr). Includes data for 183 gal/min yield at 7 ft drawdown.

Temperature 54 °F Lab analysis [ ] Yes By \_\_\_\_\_

Water quality concerns? [ ] Yes (describe below) [ ] No

Table with columns: From, To, Description, Units. Includes a 'RECEIVED JUN 30 2008' stamp.

(9) LOCATION OF WELL (legal description)

County DESCHUTE Twp 17 S N/S Range 11 E E/W WM
Sec 22 NW 1/4 of the NW 1/4 Tax Lot 4304
Tax Map Number \_\_\_\_\_ Lot \_\_\_\_\_
Lat 44 ° 6 ' 23.00" or 44.1063889 DMS or DD
Long -121 ° 23 ' 43.00" or -121.3952778 DMS or DD
[ ] Street address of well [X] Nearest address

81670 BULL SPRINGS RD

(10) STATIC WATER LEVEL

Table with columns: Date, SWL(psi), SWL(ft). Includes data for Existing Well / Predeepening and Completed Well (06-23-2008) at 246 ft.

WATER BEARING ZONES Depth water was first found 285

Table with columns: SWL Date, From, To, Est Flow, SWL(psi), SWL(ft). Includes data for 06-19-2008 test at 285-308 ft depth with 200 psi SWL.

(11) WELL LOG

Ground Elevation 3,618

Table with columns: Material, From, To. Lists geological layers such as Clay Pumice Cobbels, Gravels Clay, Cinders Red, etc.

Date Started 06-17-2008 Completed 06-23-2008

(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 758 Date 06-26-2008

Password: (if filing electronically) \_\_\_\_\_

Signed \_\_\_\_\_

(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 1720 Date 06-26-2008

Password: (if filing electronically) \_\_\_\_\_

Signed \_\_\_\_\_

Contact Info (optional) \_\_\_\_\_

# Groundwater Application Review Summary Form

Application # G- 19069

GW Reviewer M. Thoma Date Review Completed: 11/23/2021

## 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.

*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**

11/23/2021

**TO: Application G- 19069**

**FROM: GW: M. Thoma**  
(Reviewer's Name)

**SUBJECT: Scenic Waterway Interference & General/Local Surface Water Evaluation for Deschutes Ground Water Study Area**

The source of appropriation is within or above the Deschutes Scenic Waterway

Use the Scenic Waterway condition (Condition 7J).

PREPONDERANCE OF EVIDENCE FINDING UNDER ORS 390.835:

Department has found that there is a preponderance of evidence that the proposed use of groundwater will measurably reduce the surface water flows necessary to maintain the free-flowing character of the Deschutes Scenic Waterway in quantities necessary for recreation, fish and wildlife.

LOCALIZED IMPACT FINDING

The proposed use of groundwater will have a localized impact to surface water in the Middle Deschutes River/Creek Subbasin.

If the localized impact box above is checked, then the water use under any right issued pursuant to this application is presumed to have a localized impact on surface water within the identified subbasin. Mitigation of the impact, originating from within the Local Zone of Impact identified by the Department, will be required before a permit may be issued for the proposed use.

If the localized impact box above is not checked, then the water use under any right issued pursuant to this application is presumed to have a general (regional) impact on surface water. Mitigation of the impact, originating anywhere within the Deschutes Basin above the Madras gage, will be required before a permit may be issued for the proposed use.

PUBLIC INTEREST REVIEW FOR GROUNDWATER APPLICATIONS

TO: Water Rights Section Date 11/23/2021  
 FROM: Groundwater Section M. Thoma  
 Reviewer's Name  
 SUBJECT: Application G- 19069 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: James Verheyden, Jean Verheyden County: Deschutes

A1. Applicant(s) seek(s) 1.0 cfs from 4 well(s) in the Deschutes Basin,  
Tumalo Creek subbasin

A2. Proposed use Nursery (747.2 acres) Seasonality: Year-Round (83 AF/year)\*

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	DESC0052523	1	Bedrock	1	17.00S-11.00E-22-NENW	450 FEET SOUTH AND 570 FEET WEST FROM N1/4 CORNER, SECTION 22
2	DESC0059987	2	Bedrock	1	17.00S-11.00E-16-NESE	1160 FEET SOUTH AND 360 FEET WEST FROM E1/4 CORNER, SECTION 16
3	DESC0059434	3	Bedrock	1	17.00S-11.00E-16-SENE	140 FEET NORTH AND 180 FEET WEST FROM E1/4 CORNER, SECTION 16
4	DESC0058486	4	Bedrock	1	17.00S-11.00E-15-NENW	1140 FEET SOUTH AND 410 FEET WEST FROM N1/4 CORNER, SECTION 15

\* 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	3690	345	271	7/24/99	362	0-18	+2-23	2-362	322-362	40		A
2	3730	370	325	6/4/14	414	0-38.5	+1.5-38.5	3-414	395-410	50		A
3	3720	402	360	4/4/12	430	0-22	+1-22	10-430	410-430	20		A
4	3650	285	246	6/23/08	308	0-99	+1-99	11-308	288-308	183		P

Use data from application for proposed wells.

A4. **Comments:** \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

A5.  **Provisions of the Deschutes (OAR 690-505)** \_\_\_\_\_ 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 proposed use is within the Deschutes Groundwater Study Area  
 \_\_\_\_\_  
 \_\_\_\_\_

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 (Annual SWL); Large Water-Use Reporting;
  - 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:** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

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

Impacts to surface water are addressed by the Deschutes Basin Rules (OAR 690-5050)

C6. **SW / GW Remarks and Conditions:** The proposed POAs are within the Deschutes Groundwater Study Area described in OAR 690-505. The applicant proposes Nursery use on 747.2 acres but a total annual volume of only 83 acre-feet; this calculates to approximately 0.11 AF/acre which seems extremely low. Extra scrutiny should be applied related to the mitigation proposal for this application to make sure that the amount of mitigation required meets the actual demands of the use.

**References Used:**

Gannett, M. W. and K. E. Lite. 2004. Simulation of Regional Ground-Water Flow in the Upper Deschutes Basin, Oregon. USGS Water Resources Investigations Report 2003-4195

Gannett, M. W. and K. E. Lite. 2013. Analysis of 1997-2009 Groundwater Level Changes in the Upper Deschutes Basin, Central Oregon. USGS Scientific Investigations Report 2013-5092

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**D. WELL CONSTRUCTION, OAR 690-200**

D1. **Well #:** \_\_\_\_\_ **Logid:** \_\_\_\_\_

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

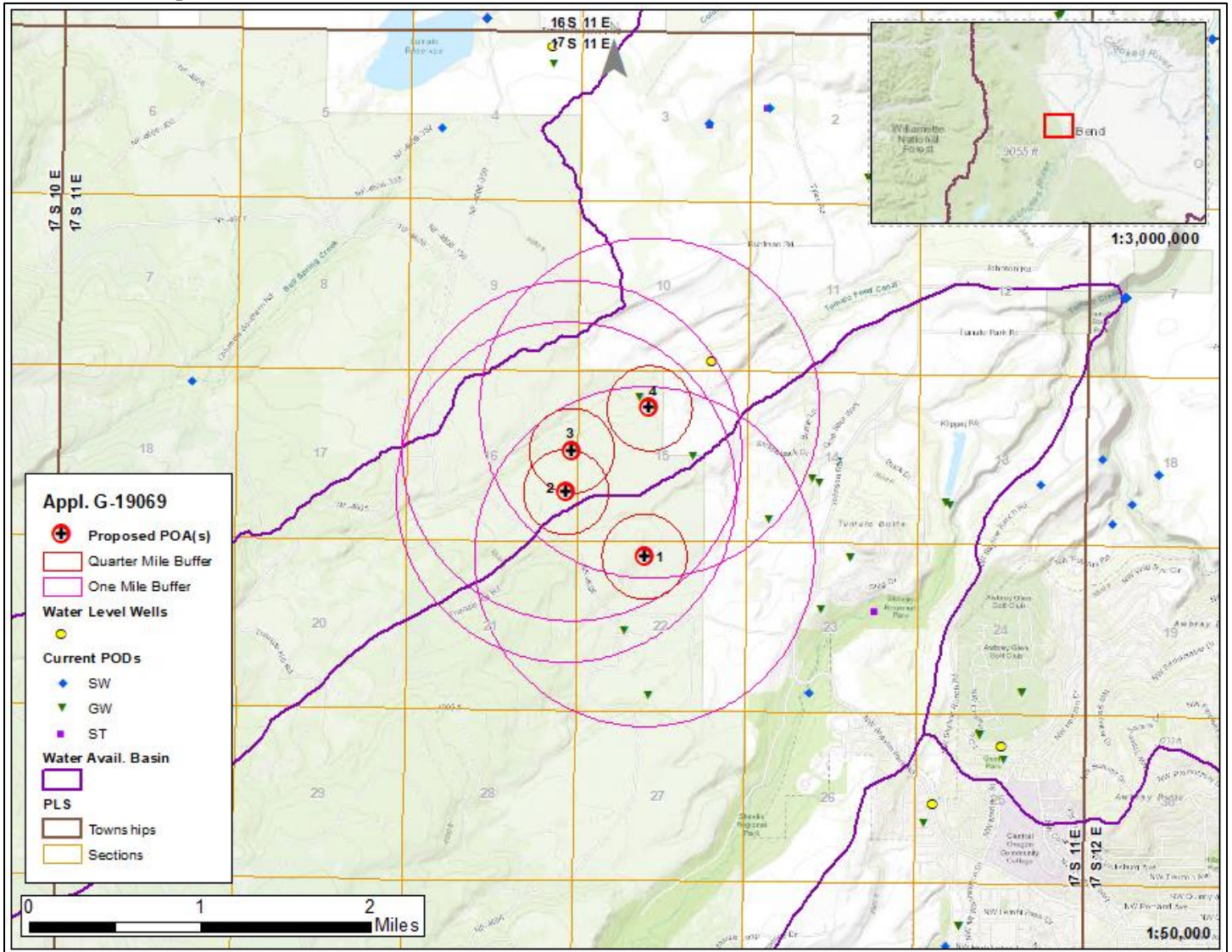
- a.  review of the well log;
- b.  field inspection by \_\_\_\_\_;
- c.  report of CWRE \_\_\_\_\_;
- d.  other: (specify) \_\_\_\_\_

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.**



### Well Location Map



Water-Level Measurements in Nearby Wells

