CLAIM OF BENEFICIAL USE for Transfer New or Additional POD Only

OREGON WATER RESOURCES DEPARTMENT
Oregon Water Resources Department
725 Summer Street NE, Suite A
Salem, Oregon 97301-1266
(503) 986-0900
www.oregon.gov/OWRD

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A fee of $200 must accompany this form for any Transfer final orders including a water right with a priority date of July 9, 1987, or later.

Example – A transfer involves 5 rights and one of the rights has a priority date of July 9, 1987, or later, the fee is required.

A separate form shall be completed for each transfer.

This form is subject to revision. **Begin each new claim** by checking for a new version of this form at: https://www.oregon.gov/OWRD/Forms/Pages/default.aspx
The completion of this form is required by OAR 690-014-0100(1) and 690-014-0110(4).

Please type or print in dark ink. If this form is found to contain errors or omissions, it may be returned to you. **Every item must have a response.** If any requested information does not apply to the claim, insert "NA." **Do not delete or alter any section of this form unless directed by the form.** The Department may require the submittal of additional information from any water user or authorized agent.

"Section 8" of this form is intended to aid in the completion of this form and should not be submitted.

A claim of beneficial use includes both this report and a map. If the map is being mailed separately from this form, please include a note with this form indicating such.

If you have questions regarding the completion of this form, please call 503-986-0900 and ask for the Certificate Section.

The Department has a program that allows it to enter into a voluntary agreement with an applicant for expedited services. Under such an agreement, the applicant pays the cost to hire additional staff that would not otherwise be available. This program means a certificate may be issued in about a month. For more information on this program see:
https://www.oregon.gov/OWRD/programs/WaterRights/RA/Pages/default.aspx

SECTION 1

GENERAL INFORMATION

Type of Authorized Change

This Claim is being submitted for a transfer where the only authorized change was a change in either point(s) of diversion or additional point(s) of diversion, or a combination of both. **YES**

If additional changes were authorized, you will need to select a different form.

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1. File Information

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APPLICATION #
T-13231

2. Property Owner (current owner information)

APPLICANT/BUSINESS NAME		PHONE NO.	ADDITIONAL CONTACT NO.
Don Atwood		503-327-9163	
ADDRESS			
605 SE 26th Avenue			
CITY	STATE	ZIP	E-MAIL
Hillsboro	OREGON	97123	donatwood@yahoo.com

If the current property owner is not the transfer holder of record, it is recommended that an assignment be filed with the Department. ***Each*** *transfer holder of record must sign this form.*

3. Transfer holder of record (this may, or may not, be the current property owner)

TRANSFER HOLDER OF RECORD		
Don Atwood		
ADDRESS		
605 SE 26th Avenue		
CITY	STATE	ZIP
Hillsboro	OREGON	97123

4. Date of Site Inspection:

07/10/2019

5. Person(s) interviewed and description of their association with the project:

NAME	DATE	ASSOCIATION WITH THE PROJECT
Don Atwood	07/10/2019	Land Owner

6. County:

Tillamook

7. If any property described in the place of use of the transfer final order is excluded from this report, identify the owner of record for that property (ORS 537.230(5)):

OWNER OF RECORD		
Don Atwood		
ADDRESS		
605 SE 26th Avenue		
CITY	STATE	ZIP
Hillsboro	OREGON	97123

Add additional tables for owners of record as needed

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SECTION 2

SIGNATURES

CWRE Statement, Seal and Signature

The facts contained in this Claim of Beneficial Use are true and correct to the best of my knowledge.

Seal and Signature

06-28-2021

CWRE Name		Phone No.	Additional Contact No.
Daniel Adolph Renton		**360-600-3145**	
Address			
2200 East Evergreen Blvd			
City	State	Zip	E-Mail
Vancouver	**WA**	**98661**	**dar@mgsurvey.com**

Transfer Holder of Record Signature or Acknowledgement

Each *transfer holder of record must sign this form in the space provided below.*

The facts contained in this Claim of Beneficial Use are true and correct to the best of my knowledge. I request that the Department issue a water right certificate.

Signature	Print or Type Name	Title	Date
	Don Atwood	**Owner**	7-15-2021

SECTION 3

CLAIM DESCRIPTION

Note: The Claim only needs to describe the new or additional point(s) of diversion. This Claim does not need to provide information for the original point(s) of diversion unless the original point of diversion is either a new or additional point of diversion on another right involved in this transfer.

1. New or additional point of diversion name or number:

POINT OF DIVERSION (POD) NAME OR NUMBER (CORRESPOND TO MAP)	SOURCE
Tax Lot 1S0818A002100	HATCHERY CREEK

2. Variations:

Was the use developed differently from what was authorized by the transfer final order, or extension final? If yes, describe below. NO

(e.g. *"The order allowed three new/additional points of diversion. The water user only developed one of the points."*)

3. Claim Summary:

NEW OR ADDITIONAL POD NAME OR #	MAXIMUM RATE AUTHORIZED IN ORDER	CALCULATED THEORETICAL RATE BASED ON SYSTEM	AMOUNT OF WATER MEASURED
Tax Lot 1S0818A002100	0.005 CFS	0.005 CFS	0.005 CFS

SECTION 4

SYSTEM DESCRIPTION

Are there multiple new or additional Points of Diversion (POD)s? NO

If *"YES"* you will need to copy and complete a separate Section 4 for each POD.

POD Name or Number this section describes (only needed if there is more than one):

A. POD System Information

Provide the following information concerning the point of diversion. Information provided must describe the equipment used to appropriate water from the point of diversion.

1. Pump Information

Manufacturer	Model	Serial Number	Type (centrifugal, turbine or submersible)	Intake Size	Discharge Size
Rain Flow	MHP75-1-9-138	174460131022	Centrifugal	1"	1"

2. Motor Information

Manufacturer	Horsepower
Rain Flow	1 HP

3. Theoretical Pump Capacity

Horsepower	Operating PSI	Lift from Source to Pump	Lift from Pump to Place of Use	Total Pump Output (in cfs)
1.0	145	100	10	0.014

4. Provide pump calculations:

Pump Capacity Calculation Sheet
using Department designed formula:

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(hp)(efficiency) / (lift + psi head) = capacity in cfs

Efficiency:

Centrifugal = 6.61
Turbine = 7.04

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Data Entry (fill in underlined blanks)

HP = 1
Efficiency = 6.61
Lift = 110
PSI = 145

Results Calculated

(hp)(efficiency) = 6.61
Head based on psi = 368.4
Total dynamic head = (head + lift) 478.4

Pump Capacity = 0.014 cubic feet per second

5. Measured Pump Capacity (using meter if meter was present and system was operating)

Initial Meter Reading	Ending Meter Reading	Duration of Time Observed	Total Pump Output (in cfs)
0 gallons	600 gallons	1 hour	0.02

Reminder: For pump calculations use the reference information at the end of this document.

B. Gravity Flow Pipe

(The Department typically uses the Hazen-William's formula for a gravity flow pipe system)

1. Does the diversion involve a gravity flow pipe? **NO**

If "NO", items 2 through 4 relating to this section may be deleted.

C. Gravity Flow Canal or Ditch

(The Department typically uses Manning's formula for canals and ditches)

1. Does the diversion involve a gravity flow ditch or canal? **NO**

If "NO", items 2 through 4 relating to this section may be deleted.

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D. Additional notes or comments related to the system:

SECTION 5

CONDITIONS

All conditions contained in the transfer final order, or any extension final order shall be addressed. Reports that do not address all performance related conditions will be returned.

1. Time Limits:

Describe how the water user has complied with each of the development timelines established in the transfer final order and any extensions of time issued for the transfer:

	DATE FROM TRANSFER	DATE THE NEW AND/OR ADDITIONAL POD(S) WERE READY FOR USE *THIS DATE MUST FALL BETWEEN THE "ISSUANCE DATE" AND THE "COMPLETENESS DATE"
ISSUANCE DATE	05/06/2019	
COMPLETENESS DATE FROM ORDER (C)	12/02/2020	09/03/2020

* MUST BE WITHIN PERIOD BETWEEN TRANSFER FINAL ORDER, OR ANY EXTENSION FINAL ORDER ISSUANCE AND THE DATE TO COMPLETE THE CHANGE

2. Is there an extension final order(s)? **NO**

If "NO", you may delete the following table.

3. Measurement Conditions:

a. Does the transfer final order, or any extension final order require the installation of a meter or other approved measuring device? **NO**

If "NO", items b through f relating to this section may be deleted.

Reminder: If a meter or approved measuring device was required, the COBU map must indicate the location of the device in relation to the point of diversion.

4. Recording and reporting conditions

a. Is the water user required to report the water use to the Department? **NO**

If "NO", item b relating to this section may be deleted.

5. Fish Screening

a. Are any points of diversion required to be screened to prevent fish from entering the point of diversion? **NO**

If "NO", items b through e relating to this section may be deleted.

6. By-pass Devices

a. Are any points of diversion required to have a by-pass device to prevent fish from entering the point of diversion? **NO**

7. Other conditions required by the transfer final order or extension final order:

a. Was the water user required to restore the riparian area if it was disturbed? **NO**

b. Was a fishway required? **NO**

c. Other conditions? **NO**

If "YES" to any of the above, identify the condition and describe the water user's actions to comply with the condition(s):

SECTION 6

ATTACHMENTS

Provide a list of any additional documents you are attaching to this report:

ATTACHMENT NAME	DESCRIPTION

SECTION 7

CLAIM OF BENEFICIAL USE MAP

The Claim of Beneficial Use Map must be submitted with this claim. Claims submitted without the Claim of Beneficial Use map will be returned. The map shall be submitted on polyester film at a scale of 1" = 1320 feet, 1" = 400 feet, or the original full-size scale of the county assessor map for the location.

For the purpose of this Claim, the map identifying the location of the place of use does not require a new survey. The location of the place of use identified on the Claim map should be based on the original right of record at the time the transfer final order was issued. In transfers approved for additional points of diversion, the original points must be identified the map based on the original right of record at the time the transfer final order was issued.

Provide a general description of the survey method used to prepare the map. Examples of possible methods include, but are not limited to, a traverse survey, GPS, or the use of aerial photos. If the basis of the survey is an aerial photo, provide the source, date, series and the aerial photo identification number.

Map was created using Tillamook County GIS Data

Map Checklist

Please be sure that the map you submit includes ALL the items listed below.
(Reminder: Incomplete maps and/or claims may be returned.)

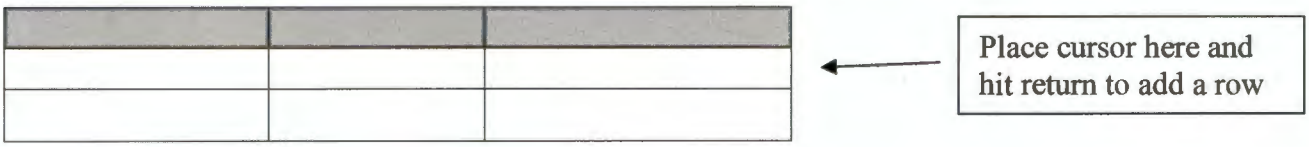
- ☒ Map on polyester film
- ☒ Appropriate scale (1" = 400 feet, 1" = 1320 feet, or the original full-size scale of the county assessor map)
- ☒ Township, Range, Section, Donation Land Claims, and Government Lots
- ☐ If irrigation, number of acres irrigated within each projected Donation Land Claims, Government Lots, Quarter-Quarters **N/A**
- ☐ Locations of fish screens and/or fish by-pass devices in relationship to point of diversion **N/A**
- ☐ Locations of meters and/or measuring devices in relationship to point of diversion or appropriation **N/A**
- ☐ Conveyance structures illustrated (pumps, reservoirs, pipelines, ditches, etc.) ***Not required for this type of Claim of Beneficial Use**
- ☒ Point(s) of diversion or appropriation (illustrated and coordinates)
- ☒ Tax lot boundaries and numbers
- ☒ Source illustrated if surface water
- ☒ Disclaimer ("This map is not intended to provide legal dimensions or locations of property ownership lines")
- ☒ Application and permit number or transfer number
- ☒ North arrow
- ☒ Legend
- ☒ CWRE stamp and signature

SECTION 8
REFERENCE INFORMATION FOR CWRE USE
(Please DO NOT submit these pages.)

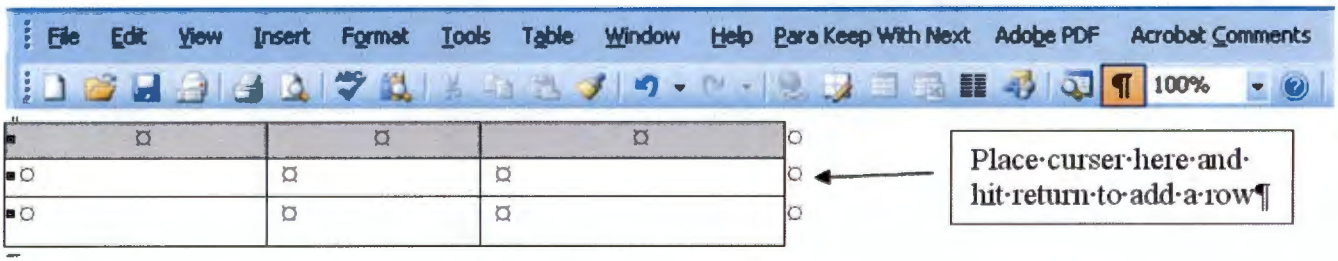
Additional information is available at:
https://www.oregon.gov/OWRD/programs/WaterRights/COBU/Pages/default.aspx
Go to "Resources for Water Right Examiners (CWRE)" Page

MS Word Hints

To add rows to a table, click outside the table on the far right and hit enter.



If you are having difficulty placing the curser outside the table, click on the Show/Hide (Paragraph) icon ¶. This is found on the Standard toolbar (View =>Toolbars=>Standard) of some versions of Word.



To resolve page numbering issues, go to print preview. Page through the entire document (while in print preview), then print from print preview.

Common Calculations

The Department typically uses the following calculations to determine system capacities; many of which are available to download from the Department's Web Site.

Pumps:

Q Pump = $\frac{\text{(horsepower)(pump efficiency)}}{\text{(total head in feet)}}$ = Q in cfs

Efficiency factors:

NOTE: Pump efficiency factor for centrifugal pump (75%) = 6.61
Pump efficiency factor for turbine pump (80%) = 7.04

Centrifugal Pump, 75% eff. $\frac{\text{(550 ft lb/sec/Hp)(.75)}}{\text{(62.4 lb/cu ft)}}$ = 6.61 ft^4/sec/Hp

Turbine & Submersible Pumps, 80% eff. $\frac{\text{(550 ft lb/sec/Hp)(.80)}}{\text{(62.4 lb/cu ft)}}$ = 7.04 ft^4/sec/Hp

Total head is the sum of suction lift, pressure head, and discharge lift.

If the operating pressure is not measured, varying the assumed operational pressure in the above formulas until the calculated outputs are equal, or nearly so, will generally give the most correct theoretical capacity of the system.

Efficiencies have been assumed to be 75% for centrifugal pump installations and 80% for turbine or submersible pumps. See the list below of converted psi's to feet of head. These figures account for minor friction losses. If the system involves unusually long pipelines friction losses should be accounted for by using standard charts and formulas.

Refer to the conversion table below to compute PSI to head for pump pressure in feet.

[(psi/.433)(1.1) = head (in feet/psi) = 2.54 feet head/psi]

PSI	HEAD	PSI	HEAD
25	63.5	55	139.7
30	76.2	60	152.4
35	88.9	65	165.1
40	101.6	70	177.8
45	114.3	75	190.5
50	127.0	80	203.2

Ditches/Canals:

Manning's Formula: $$v = \frac{1.486}{n} r^{2/3} s^{1/2}$$

v = mean velocity of flow in feet per second
r = hydraulic radius in feet
s = slope of the energy gradient
n = coefficient of roughness

Type of Conduit and Description	Coefficient of Roughness

Pipe	Minimum	Maximum
Cast Iron, Coated	0.01	0.014
Cast Iron, Uncoated	0.011	0.015
Wrought Iron, Galvanized	0.013	0.017
Wrought Iron, Black	0.012	0.015
Steel, Riveted and Spiral	0.013	0.017
Corrugated	0.021	0.0255
Wood Stave	0.01	0.014
Neat Cement Surface	0.01	0.013
Concrete	0.01	0.017
Vitrified Sewer Pipe	0.01	0.017
Clay, Common Drainage Tile	0.011	0.017
Lined Channels		
Metal, Smooth Semicircular	0.011	0.015
Metal, Corrugated	0.0228	0.0244
Wood, Planed	0.01	0.015
Wood, Unplaned	0.011	0.015
Neat Cement-Lined	0.01	0.013
Concrete	0.012	0.018
Cement Rubble	0.017	0.03
Vegetated, Small Channels, Shallow Depths		
Bermuda Grass; Long - 13", Green	0.042	
Bermuda Grass; Long - 13", Dormant	0.035	
Bermuda Grass; Short - 3", Green	0.034	
Bermuda Grass; Short - 3", Dormant	0.034	
Unlined Channels		
Earth; Straight and Uniform	0.017	0.025
Dredged	0.025	0.033
Winding and Sluggish	0.0225	0.03
Stoney Bed, Weeds on Bank	0.025	0.04
Earth Bottom, Rubble Sides	0.028	0.035
Rock Cuts; Smooth and Uniform	0.025	0.035
Rock Cuts; Jagged and Irregular	0.035	0.045

Gravity flow pipe systems

Hazen-William's Formula:

$$v = 1.31(c)(r^{0.63})(s^{0.54})$$

v = mean velocity of flow in feet per second
c = coefficient of roughness
r = hydraulic radius in feet
s = slope of energy gradient

Material	Coefficient of Roughness
Asbestos Cement	140
Brass	135
Brick sewer	100
Cast-Iron - new unlined (CIP)	130
Cast-Iron 10 years old	110
Cast-Iron 20 years old	95
Cast-Iron 30 years old	82
Cast-Iron 40 years old	74
Concrete	130
Copper	135
Ductile Iron Pipe (DIP)	140
Galvanized iron	120
Glass	140
Lead	135
Plastic	145
PVC, CPVC	150
Smooth Pipes	140
Steel new unlined	145
Steel	130
Steel riveted	110
Tin	130
Wood Stave	120