



CLAIM OF BENEFICIAL USE

**APPLICATION G-12759
PERMIT G-12123**

City of Junction City, Oregon

December 11, 2019

Project 1004.004

**Skookum Water Associates Inc.
1626 Victorian Way Eugene, OR 97401
(503) 319-8926**

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CLAIM OF BENEFICIAL USE for Groundwater Permits claiming more than 0.1 cfs



Oregon Water Resources Department
725 Summer Street NE, Suite A
Salem, Oregon 97301-1266
(503) 986-0900
www.wrd.state.or.us

**A fee of \$200 must accompany this form for permits
with priority dates of July 9, 1987, or later.**

A separate form shall be completed for each permit.

In cases where a permit has been amended through the permit amendment process, a separate claim for the permit amendment is not required. Incorporate the permit amendment into the claim for the permit.

This form is subject to revision. **Begin each new claim** by checking for a new version of this form at:

http://www.oregon.gov/owrd/pages/wr/cwre_info.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

http://www.oregon.gov/owrd/pages/mgmt_reimbursement_authority.aspx

SECTION 1 GENERAL INFORMATION

1. File Information

APPLICATION #	PERMIT # (IF APPLICABLE)	PERMIT AMENDMENT # (IF APPLICABLE)
G-12759	G-12123	T- NA

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2. Property Owner (current owner information)

APPLICANT/BUSINESS NAME City of Junction City Attn: Gary Kaping		PHONE NO. (541) 998-2153	ADDITIONAL CONTACT NO.
ADDRESS P.O. Box 250			
CITY Junction City	STATE OR	ZIP 97448	E-MAIL GKaping@ci.junction-city.or.us

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

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

PERMIT HOLDER OF RECORD City of Junction City		
ADDRESS P.O. Box 250		
CITY Junction City	STATE OR	ZIP 97448

ADDITIONAL PERMIT HOLDER OF RECORD NA		
ADDRESS		
CITY	STATE	ZIP

4. Date of Site Inspection: **September 17, 2019**

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

NAME	DATE	ASSOCIATION WITH THE PROJECT
Gary Kaping	9/20/2019	Public Works Director
Jeremy Tracer	9/20/19	Public Works Superintendent

6. County: **Lane**

7. If any property described in the place of use of the permit is excluded from this report, identify the owner of record for that property (ORS 537.230(4)):

OWNER OF RECORD NA		
ADDRESS		
CITY	STATE	ZIP

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



CWRE NAME Steven R. Bruce Skookum Water Associates Inc.		PHONE NO. (503) 319-8926	ADDITIONAL CONTACT NO.
ADDRESS 1626 Victorian Way			
CITY Eugene	STATE OR	ZIP 97401	E-MAIL Steve@skookumwater.com

Permit Holder of Record Signature or Acknowledgement

Each permit 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
	Gary Kaping	Public Works Director	

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SECTION 3

CLAIM DESCRIPTION

1. Point of appropriation name or number:

POINT OF APPROPRIATION (POA) NAME OR NUMBER (CORRESPOND TO MAP)	WELL LOG ID # FOR ALL WORK PERFORMED ON THE WELL (IF APPLICABLE)	WELL TAG # (IF APPLICABLE)
5 th & Maple Well	LANE 6364, LANE 6365, LANE 6366	L135911 (this is a replacement for a well tag that was lost)

Attach each well log available for the well (include the log for the original well and any subsequent alterations, reconstructions, or deepenings)

2. Point of appropriation source, if indicated on permit:

POA NAME OR NUMBER	SOURCE BASIN LOCATED WITHIN	TRIBUTARY
5 th & Maple Well	Ingram Slough Basin	Willamette River

3. Developed use(s), period of use, and rate for each use:

POA NAME OR NUMBER	USES	IF IRRIGATION, LIST CROP TYPE	SEASON OR MONTHS WHEN WATER WAS USED	ACTUAL RATE OR VOLUME USED (CFS, GPM, OR AF)
5 th & Maple Well	Municipal	--	Year-Round	1.53 cfs
Total Quantity of Water Used				1.53 cfs

4. Provide a general narrative description of the distribution works. This description must trace the water system from **each** point of appropriation to the place of use:

Water is pumped from the well using a 60-hp turbine pump. After passing through a flowmeter, the water enters a 12-inch-diameter raw water mainline. The mainline conveys water from this well and three other wells to the treatment plant using the pumps installed in each well. The treated water then is delivered to 2.25 and 1.25 million-gallon tanks. Water stored in these tanks is forwarded to the booster pump station. The four 100-hp pumps at this station forward the water to two 300,000 - gallon water towers.

The two water towers are used to maintain the distribution system pressure. One tower is 165-feet tall and the other tower is 175-feet tall. The distribution system consists of various piping ranging from ?? to ?? inches.

Reminder: The map associated with this claim must identify the location of the point(s) of diversion, Donation Land Claims (DLC), Government Lots (GLot), and Quarter-Quarters (QQ).

5. Variations:

Was the use developed differently from what was authorized by the permit, permit amendment final order, or extension final order? If yes, describe below.

YES

(e.g. "The permit allowed three points of appropriation. The water user only developed one of the points." or "The permit allowed 40.0 acres of irrigation. The water user only developed 10.0 acres.")

The permit authorized the use of up to 1.67 cfs of groundwater. The City developed 1.53 cfs of the rate.

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6. Claim Summary:

POA NAME OR #	MAXIMUM RATE AUTHORIZED	CALCULATED THEORETICAL RATE BASED ON SYSTEM	AMOUNT OF WATER MEASURED	USE	# OF ACRES ALLOWED	# OF ACRES DEVELOPED
5 th & Maple Well	1.67 cfs	1.82 cfs	1.53 cfs for 4- hr-long demonstration period in June 2004	Municipal	--	--

The right should be limited to the 1.53 cfs rate established for a 4-hour-long period as documented on the chart recording from June 2004 (see Exhibit A).

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SECTION 4
SYSTEM DESCRIPTION

Are there multiple POAs?

NO

If "YES" you will need to copy and complete Sections 4B through 4F for each POA.

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

A. Place of Use

1. Is the right for municipal use?

YES

If "YES" the table below may be deleted.

Reminder: The map associated with this claim must identify Donation Land Claims (DLC), Government Lots (GLot), Quarter Quarters (QQ), and if for irrigation, the number of acres irrigated within each projected DLC, GLot, and QQ.

B. Diversion and Delivery System Information

Provide the following information concerning the diversion and delivery system. Information provided must describe the equipment used to transport and apply the water from the point of appropriation to the place of use.

1. Is a pump used?

YES

If "NO" items 2 through item 6 may be deleted.

2. Pump Information

MANUFACTURER	MODEL	SERIAL NUMBER	TYPE (CENTRIFUGAL, TURBINE OR SUBMERSIBLE)	INTAKE SIZE	DISCHARGE SIZE
Well Pump					
Preferred Pump	TA141110	F0900 SP	Turbine	8 inch	6 inch
Booster Pumps					
Peerless Pump	14MD2STG	9927009677-10A	Turbine	12 inch	12 inch
Peerless Pump	14MD2STG	9927009677-20B	Turbine	12 inch	12 inch
Peerless Pump	14MD2STG	9927009677-30C	Turbine	12 inch	12 inch
Peerless Pump	14MD2STG	9927009677-40D	Turbine	12 inch	12 inch

3. Motor Information

MANUFACTURER	HORSEPOWER
Well Pump	
Emerson	60
Booster Pumps	
Emerson	100
Emerson	100
Emerson	100
Emerson	100

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4. Theoretical Pump Capacity

HORSEPOWER	OPERATING PSI	LIFT FROM SOURCE TO PUMP *If A WELL, THE WATER LEVEL DURING PUMPING	LIFT FROM PUMP TO PLACE OF USE	TOTAL PUMP OUTPUT (IN CFS)
------------	---------------	--	--------------------------------	-------------------------------

Well Pump

60	40 psi (estimated)	110 feet	20 feet (approx.)	1.82
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Booster Pumps (all four pumps boost water to the two water towers at 72 psi, accounting for lift from the pump to the place of use)

100	72 (reported)	0 – positive pressure on pump intake	Accounted for by 72 psi pressure	3.85
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5. Provide pump calculations:

Well Pump

$$Q_{\text{Pump}} = \frac{(\text{horsepower})(\text{pump efficiency})}{(\text{total head in feet})} = \frac{(60)(7.04)}{101.6+110+20} = \frac{422.4}{231.6} = 1.82 \text{ cfs (approx. 816.8 gpm)}$$

Where:

$$\text{hp} = 60$$

$$\text{efficiency} = 7.04$$

$$\text{total head} = 101.6 \text{ feet (conversion of 40 psi from table in CBU form)} + 110 \text{ feet lift from the pumping water level (reported by the City)} + 20 \text{ feet to tank (approx. because tank water level varies)}$$

Booster Pumps

$$Q_{\text{Pump}} = \frac{(\text{horsepower})(\text{pump efficiency})}{(\text{total head in feet})} = \frac{(100)(7.04)}{182.9} = \frac{704}{182.9} = 3.85 \text{ cfs} \times 4 \text{ pumps} = 15.4 \text{ cfs total}$$

Where:

$$\text{hp} = 100$$

$$\text{efficiency} = 7.04 \text{ due to positive pressure on intake}$$

$$\text{total head} = 0 \text{ lift} + 182.9 \text{ feet (72 psi converted to feet based on Claim form)}. \text{ The 72 psi is needed to pump the water into two water towers that are 165 and 175 feet high. The towers are used to maintain the distribution system pressure.}$$

6. 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)
NA			

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

7. Is the distribution system piped?

YES

If "NO" items 8 through item 11 may be deleted.

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8. Mainline Information

MAINLINE SIZE	LENGTH	TYPE OF PIPE	BURIED OR ABOVE GROUND
24 inch	>20,000 ft	PVC	Buried
16 inch	>25,000 ft	PVC	Buried
12 inch	>5,000 ft	PVC	Buried
10 inch	>10,000 ft	PVC	Buried
8 inch	>50,000 ft	Transite, Cast Iron & PVC	Buried
6 inch	>20,000 ft	Cast Iron & PVC	Buried
4 inch	>10,000 ft	PVC	Buried
2 inch	>20,000 ft	Galvanized, Metal & PVC	Buried

9. Lateral or Handline Information

LATERAL OR HANDLINE SIZE	LENGTH	TYPE OF PIPE	BURIED OR ABOVE GROUND
NA			

10. Sprinkler Information

SIZE	OPERATING PSI	SPRINKLER OUTPUT (GPM)	TOTAL NUMBER OF SPRINKLERS	MAXIMUM NUMBER USED	TOTAL SPRINKLER OUTPUT (CFS)
NA					

Reminder: For sprinkler output determination use the reference information at the end of this document.

11. Pivot Information

MANUFACTURER	MAXIMUM WETTED RADIUS	OPERATING PSI	TOTAL PIVOT OUTPUT (GPM)	TOTAL PIVOT OUTPUT (CFS)
NA				

12. Additional notes or comments related to the system:

The well pump is the limiting factor for the water system capacity.

C. Groundwater Source Information (Well and Sump)

1. Is the appropriation from ground water (well or sump)?

YES

If "NO", items 2 through 8 relating to this section may be deleted.

2. Describe the access port (type and location) or other means to measure the water level in the well:

There is a 1-inch-diameter access port on the well.

3. If well logs are not available, provide as much of the following information as possible:

CASING DIAMETER	CASING DEPTH	TOTAL DEPTH	COMPLETION DATE OF ORIGINAL WELL	COMPLETION DATES OF ALTERATIONS	WHO THE WELL WAS DRILLED FOR	WELL DRILLED BY
12 in	+3 to 150 ft	190 ft	8/14/1978	None	City of Junction City	Hoeck Well Drilling

4. In addition to the information requested in item "3" above, provide any other information which may help the Department locate any well logs associated with this appropriation.

See LANE 6364, LANE 6365, LANE 6366

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5. Is the appropriation from a dug well (sump)?

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NO

If "NO", items 6 through 8 relating to this section may be deleted.

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D. Storage

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1. Does the distribution system include in-system storage (e.g. storage tank, bulge in system / reservoir)

YES

If "NO", item 2 and 3 relating to this section may be deleted.

If "YES" is it a: Storage Tank

YES

Bulge in System / Reservoir

NO

Complete appropriate table(s), unused table may be deleted.

2. Storage Tank:

MATERIAL (CONCRETE, FIBERGLASS, METAL, ETC.)	CAPACITY (IN GALLONS)	ABOVE GROUND OR BURIED
Concrete	2,250,000	Above Ground
Steel	1,250,000	Above Ground
Steel	300,000	Above Ground
Steel	300,000	Above Ground

E. Gravity Flow Pipe

(THE DEPARTMENT TYPICALLY USES THE HAZEN-WILLIAM'S FORMULA FOR A GRAVITY FLOW PIPE SYSTEM)

1. Does the system involve a gravity flow pipe?

NO

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

F. Gravity Flow Canal or Ditch

(THE DEPARTMENT TYPICALLY USES MANNING'S FORMULA FOR CANALS AND DITCHES)

1. Is a gravity flow canal or ditch used to convey the water as part of the distribution system?

NO

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

SECTION 5 CONDITIONS

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

1. Time Limits:

Permits and extension final orders contain any or all of the following dates: the date when the actual construction work was to begin, the date when the construction was to be completed, and the date when the complete application of water to the proposed use was to be completed. These dates may be referred to as ABC dates. Describe how the water user has complied with each of the development timelines established in the permit or permit extension order:

	DATE FROM PERMIT	DATE ACCOMPLISHED*	DESCRIPTION OF ACTIONS TAKEN BY WATER USER TO COMPLY WITH THE TIME LIMITS
ISSUANCE DATE	August 29, 1995		
BEGIN			The well was constructed in 1978 and

CONSTRUCTION (A)	August 29, 1996	September 1995	a flowmeter was installed in October 1989, which was prior to the permit issuance. Water use began under the permit in September 1995.
COMPLETE CONSTRUCTION (B)	October 1, 1997, Extended to October 1, 2021	September 1995	See above
COMPLETE APPLICATION OF WATER (C)	October 1, 1998, Extended to October 1, 2021	June 2004	The maximum pumping rate under the permit was developed as documented on the attached chart recording (see Attachment A).

* MUST BE WITHIN PERIOD BETWEEN PERMIT, OR ANY EXTENSION FINAL ORDER ISSUANCE AND THE DATE TO COMPLETELY APPLY WATER

2. Is there an extension final order(s)? YES

3. Initial Water Level Measurements:

a. Was the water user required to submit an initial static water level measurement? NO

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

4. Annual Static Water Level Measurements:

a. Was the water user required to submit annual static water level measurements? NO

If "NO", items 5b through 5e relating to this section may be deleted.

5. Pump Test (Required for most ground water permits prior to issuance of a certificate)

a. Did the permit require the submittal of a pump test? YES

If "NO", items 6b through 6e relating to this section may be deleted.

b. Has the pump test been previously submitted to the Department? YES – a

pumping test exemption was approved by Mike Zwart of the Department on 11/9/2012

c. Is the pump test attached to this claim? NO

d. Has the pump test been approved by the Department? YES

e. Has a pump test exemption been approved by the Department? YES

**** Claims will not be reviewed until a pump test or exemption has been approved by the Department**

6. Measurement Conditions:

a. Does the permit, permit amendment, or any extension final order require the installation of a meter or approved measuring device? YES

If "NO", items 7b through 7f 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 or appropriation.

b. Has a meter been installed? YES

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c. Meter Information

POD/POA NAME OR #	MANUFACTURE R	SERIAL #	CONDITION (WORKING OR NOT)	CURRENT METER READING	DATE INSTALLED
5 th & Maple Well	Sparling	130187	Replaced in March 2011	NA	October 1989 to March 2011
5 th & Maple Well	Sensus Omni- Meter	72910711	Working	6,986,421.1 gallons	March 2011

If a meter has been installed, items 7d through 7f relating to this section may be deleted.

7. Recording and reporting conditions

a. Is the water user required to report the water use to the Department?

YES

If "NO", item 7b relating to this section may be deleted.

b. Have the reports been submitted?

YES

If the reports have not been submitted, attach a copy of the reports if available.

8. Other conditions required by permit, permit amendment final order, or extension final order:

a. Were there special well construction standards?

NO

b. Was submittal of a ground water monitoring plan required?

NO

c. Was submittal of a water management and conservation plan required?

YES

d. Other conditions?

YES

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

c. The permit required the submittal of a Water Management and Conservation Plan (WMCP) within 1 year of the date the Water Resources Commission adopted rules for the plans. A WMCP was submitted to the Department on January 13, 2001. The time extension conditions required submittal of a WMCP within 3 years of the date of the Final Order. The WMCP was submitted to the Department on September 1, 2019.

d. The City was required to submit a plan/timetable to the Water Resources Commission indicating the steps which the City intended to pursue in obtaining a long-term water supply. The plan was submitted on January 12, 2001.

SECTION 6

ATTACHMENTS

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

ATTACHMENT NAME	DESCRIPTION
Figure 1	Application G- 12759, Permit G-12123 Claim of Beneficial Use Map
Figure 2	Map Showing Water System Infrastructure
Exhibit A	June 2004 Pumping Rate Strip Chart
Exhibit B	October 10, 2019 Waiver Approval from Gerry Clark (WRD) Authorizing the Use of a Separate Map to Show Mainline Locations

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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 poly 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.

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.

The map was tied using a USDA-FSA-APFO digital ortho-photos collected June 25, 2016 (m_4412355_nw_10-1-20160625 and m_4412355_sw_10-1-20160625).

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
- ☒ NA - Division 14 allows maps for municipal uses to be submitted at other scales.
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
- ☐ NA If irrigation, number of acres irrigated within each projected Donation Land Claims, Government Lots, Quarter-Quarters
- ☐ NA Locations of fish screens and/or fish by-pass devices in relationship to point of diversion
- ☒ Locations of meters and/or measuring devices in relationship to point of diversion or appropriation
- ☒ Conveyance structures illustrated (pumps, reservoirs, pipelines, ditches, etc.)
- ☒ Point(s) of diversion or appropriation (illustrated and coordinates)
- ☐ NA – Municipal Use Tax lot boundaries and numbers
- ☐ NA 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

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steve skookumwater.com

From: CLARK Gerald E * WRD <Gerald.E.Clark@oregon.gov>
Sent: Thursday, October 10, 2019 10:24 AM
To: steve skookumwater.com
Cc: Gary Kaping
Subject: RE: Mapping Waiver for Permit G-12123 (Application G-12759)

Steve,

Your request for a waiver to use a separate map to identify the location of the City's mainlines is approved as requested.

Please let me know if you have any additional questions.

Gerry

Gerry Clark

Oregon Water Resources Department

Program Analyst, Certificate Section, Water Right Services Division
725 Summer Street NE, Suite A Salem, OR 97301 | Phone 503-986-0811

From: steve skookumwater.com <steve@skookumwater.com>
Sent: Thursday, October 10, 2019 8:51 AM
To: CLARK Gerald E * WRD <Gerald.E.Clark@oregon.gov>
Cc: Gary Kaping <GKaping@ci.junction-city.or.us>
Subject: Mapping Waiver for Permit G-12123 (Application G-12759)

Hi Gerry,

I am completing a Claim of Beneficial Use (CBU) for Permit G-12123 (Application G-12759) the City of Junction City. As provided in Oregon Administrative Rule 690-014-0170(7), I would like a waiver allowing me to provide a separate map that shows the location of the mainlines instead of including that information on the CBU map.

Thank you,
Steve



Steven R. Bruce, RG, LHg, CWRE
1626 Victorian Way
Eugene, OR 97401
(503) 319-8926
www.skookumwater.com

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