Approved: Martin

# Memo

To:	Kristopher Byrd, Well Construction Manager
From:	Tommy Laird, Well Construction Program Coordinator
Subject:	Review of Water Right Application G-19039
Date:	February 20, 2024

The attached application was forwarded to the Well Construction Section by the Groundwater Section. Dennis Orlowski reviewed the application. Please see Dennis' Groundwater Review and the Well Report.

Applicant's Well #1 (CLAC 75780): 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.

STATE OF OREGON WATER SUPPLY WELL REPORT **CLAC 75780** 

WELL ID # L 136446

**SKYLES DRILLING. INC.** 

START CARD # W1047146 (as required by ORS 537.765) Instructions for completing this report are on the last page of this form 503-656-2683 Well Number: 01 (9) LOCATION OF WELL by legal description: (1) **OWNER**: County Latitude 45.25726 \_ongitude 22.58618 Clackamas Name Happy Hollow Farms / Will Garrison Township 4SOUTH N or S. Range E or W. of WM. 2EAST Address 2050 Beavercreek Rd, Suite 102-169 Section 05 NW 1/4 NE 1/4 Citv State OR Zip 97045 Oregon City Tax lot 200 Block Lot Subdivision Street Address of Well (or nearest address) 13678 S Spangler Rd, (2) TYPE OF WORK: Oregon City, Oregon X New Well Deepening Alteration (repair/recondition) Abandonment (10) STATIC WATER LEVEL: (3) DRILL METHOD: ft, below land surface. Date 5/4/2020 22 X Rotary Air Rotary Mud Cable Auger Artesian pressure lb. per square inch. Date Other (11) WATER BEARING ZONES: (4) PROPOSED USE: Depth at which water was first found 22' Domestic Community Industriał X Irrigation Thermal Livestock Injection Other From То Estimated Flow Rate SWL 22 40 5/4/20 22 57 (5) BORE HOLE CONSTRUCTION: Special Construction approval Yes X No Depth of Completed Well 60 Explosives used Yes X No Type Amount HOLE SEAL Amount (12) WELL LOG: sacks or pounds Diameter To Material То From From Ground elevation 0 52 Bentonite 20 0 9 Sacks 10 60 Calculated <u>52</u> 6 9 Sacks From То SWL Materia Topsoil, brown 0 3 18 Clay, reddish-brown 3 18 39 22 Lava, multicolored weathered Lava, gray & brown soft 39 48 22 How was seal placed: Method В Пс D E 22 Lava, gray & brown fractured 48 51 X Other Poured 22 Lava, gray fractured 51 57 Backfill placed from ft. to ft. Material Lava, gray w/white specks 57 60 Gravel placed from 52 ft. to 20 ft. Size of gravel 3/8pea 27sks (6) CASING/LINER: Plastic Welded Threaded То Gauge Steel Diameter From .250 X 6 +2 52 X Casing Γ SKYLES DRILLING. INC. 503-656-2683 Sch40 X X 4.5 3 60 Liner.  $\square$ RECEIVED Inside X None Outside Drive Shoe used Final location of shoe(s) MAY 0 8 2020 (7) PERFORATIONS/SCREENS: X Perforations Method Torch / Saw Screens Material Type OWRD Siot Tele/pipe From Diameter Casing Liner То Number size size 1/8x 40 X 51 22 12 Date started 5/1/2020 Completed 5/4/2020 Γ**X**] 50 60 1/8x3 45 (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 (8) WELL TESTS: Minimum testing time is 1 hour standards. Materials used and information reported above are true to the best of my Flowing Artesian Pump Bailer X Air knowledge and belief. WWC Number 1715 Yield gal/min Drawdown Drill stem at Time Signed Date 5/4/2020 Skyles Drilling, Inc. 40 57 1 hr. (bonded) Water Well Constructor Certification: I accept responsibility for the construction, alteration, or abandonment work TDS Amount 20.6 ppm performed on this well during the construction dates reported above. All work Temperature of Water 56.6° Depth Artesian Flow found performed during this time is in compliance with Oregon water supply well Was a water analysis done? X Yes By whom SDI, Iron Trace construction standards. This report is true to the best of my knowledge and belief. Did any strata contain water not suitable for intended use? Too little WWC Number 2006 Salty Muddy Odor Colored Other Signed Date 5/4/2020 Depth of strata: Skyles Drilling, Inc.

**ORIGINAL - WATER RESOURCES DEPARTMENT** 

**FIRST COPY - CONSTRUCTOR** SECOND COPY - CUSTOMER

### **Groundwater Application Review Summary Form**

Application # G- <u>19039</u>

GW Reviewer <u>Dennis Orlowski</u> Date Review Completed: <u>February 17, 2023</u>

#### 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

#### February 17, 2023

**TO:** Application G-<u>19039</u>

FROM: GW: <u>Dennis Orlowski</u> (Reviewer's Name)

#### **SUBJECT: Scenic Waterway Interference Evaluation**

- □ YES The source of appropriation is hydraulically connected to a State Scenic Waterway or its tributaries
- □ YES
   □ Use the Scenic Waterway Condition (Condition 7J)
   □ NO
- 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 <u>[Enter]</u> 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
ſ												

#### PUBLIC INTEREST REVIEW FOR GROUNDWATER APPLICATIONS

TO:	Water Rights Section		Date February 17, 2023
FROM:	Groundwater Section	Dennis Orlowski	
		Reviewer's Name	
SUBJECT:	Application G- <b>19039</b>	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. <u>GENERAL INFORMATION</u>: Applicant's Name: <u>G Can of Oregon LLC</u> County: <u>Clackamas</u>

A1.	Applicant(s) seek(s)	0.0222 cfs from	one	well(s) in the	Willamette	_Basin,
	Willamette			subbasin		

A2. Proposed use <u>Nursery (156.34 acres)</u> Seasonality: <u>Year-round</u>

#### 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	CLAC 75780	Well 1	Volcanics/Alluvium**	0.0222	T4S/R2E-S5 NW-NE	670'S, 1770'W of NE cor S5
* Alluni	um CDP Padroa	r.				

\* 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	595	22	22	5/4/2020	60	0-20	+2-52	3-60	40-51	40		Air

Use data from application for proposed wells.

#### A4. Comments: <u>The proposed POA/POU location is approximately five miles due east of Canby, Oregon.</u>

\*\* The CLAC 75780 well log indicates approximately 40 feet of "lava" underlying about 20 feet of topsoil and clay, with all water-bearing zones present within "lava." In this area geologic conditions are very complex, with basalts (Boring Lava and/or High Cascades Volcanics) underlying, overlying and/or occasionally interfingered with alluvial deposits. Local hydrogeologic conditions are discussed in more detail in Section B3 of this review.

Comments: <u>The proposed POA will produce groundwater from a confined (to semi-confined) aquifer and is greater than <sup>1</sup>/<sub>4</sub></u> mile from the nearest perennial stream reach, and thus the pertinent Willamette Basin rules (OAR 690-502-0240) do not apply.

#### A6. U Well(s) #

well(s) #,	,,	,,	tap(s) an aquifer	limited by an ad	ministrative rest	triction
Name of administrative area:	Not applicable					
Comments:						

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

- B1. **Based upon available data**, I have determined that <u>groundwater</u>\* 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.  $\Box$  will not or  $\boxtimes$  will likely 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.  $\square$  The permit should contain condition #(s) <u>7N</u>;
    - ii.  $\Box$  The permit should be conditioned as indicated in item 2 below.
    - iii.  $\Box$  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 proposed POA is located near the edge of the upland plateau located east of Canby and south of Oregon City that divides the Portland Basin and the central Willamette Valley. In this upland area the Boring Lava rest unconformably on the eroded Pliocene Troutdale Formation, and is locally overlain by Quaternary gravel and mudflow deposits. The Troutdale Formation in this area is typically comprised of low permeability silts and clays, with some thin interbeds of water-bearing sand and fine gravel that provide local sources of groundwater (Gannett and Caldwell, 1998; Woodward and others, 1998; Conlon and others, 2005). Nearby well logs show very heterogeneous geologic conditions in a relatively-small area: (1) volcanics overlying sediments (CLAC 76536); (2) mixture of volcanics interlayered with sediments (CLAC 16260); or (3) only sediments (CLAC 71789). Because groundwater can typically move freely between the volcanics and alluvial deposits, the USGS has combined the two general lithologies into their delineation of the Troutdale Gravel Aquifer (TGA); the TGA is mapped farther to the north in the Portland Basin, but similar heterogeneous conditions appear to be present in this area.

Groundwater development in this area is limited, and thus groundwater level data are likewise sparse. However, available data from CLAC 13583, located approximately 2,000 feet to the south and of comparable completion depth and elevation, has shown generally stable water levels between 2005 and 2016 (see hydrograph); this dataset suggests that the targeted aquifer is not over-appropriated and that the proposed use is within the capacity of the resource. However, despite these favorable conditions (including the low requested allocation for this application), the following permit condition is recommended to gain additional data to help manage the resource: 7N (annual measurement condition).

#### 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	Alluvium (Troutdale Fm/Boring Lava)	$\boxtimes$	

**Basis for aquifer confinement evaluation:** The well log for Well 1 (CLAC 75780) shows the presence of "weathered lava" from 18-39 ft bgs; overlying the weathered lava is 15 feet of clay. The upper portions of the weathered lava combined with the clay likely constitutes an effective confining unit for the water-bearing lava reportedly present from 22-57 ft bgs (with a reported SWL of 22 ft bgs just at/within the confining layer). This is likely a semi-confined aquifer condition.

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 <sup>1</sup>/<sub>4</sub> 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)		Čonne	lically cted? ASSUMED	Potentia Subst. In Assum <b>YES</b>	terfer.
1	1	Unnamed tributary to Parrott Creek (N)	570-580	180-490	1,380	$\boxtimes$				$\boxtimes$

**Basis for aquifer hydraulic connection evaluation:** The estimated range of groundwater elevations for Well 1 (based largely on measurements from nearby CLAC 13583 and the single SWL recorded on the Well 1-CLAC 75780 log) is above the range of elevations for the nearest perennial reach of SW1. The moderately-large separation between the two estimated ranges (80 ft) suggests this is not likely a highly-efficient hydraulic connection, but still connected nonetheless.

Water Availability Basin the well(s) are located within: <u>WID 181: Willamette River > Columbia River - at mouth</u>

C3a. **690-09-040** (4): Evaluation of stream impacts for <u>each well</u> that has been determined or assumed to be **hydraulically** connected and less than 1 mile from a surface water (SW) source. Limit evaluation to instream rights and minimum stream flows that are pertinent to that SW source, 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			MF181A	1,500		4,890		<<25% (see comment)	

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:** <u>C3a</u>: there are no readily-available analytical stream depletion models that are applicable to this mixed aquifer system (alluvium/volcanics). Given the likely low-efficiency hydraulic connection between the shallow aquifer system and SW1, coupled with very low requested pumping allocation (0.0222 cfs, ~10 gpm), it was concluded that potential stream interference at 30 days would be much less than 25%.

C3b: not applicable.

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-Di	istributed	Wells											
Well	SW#	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q	Q as CFS												
Interfer	ence CFS												
Distrib	uted Well	s											
Well	SW#	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q	Q as CFS												
Interfer	ence CFS												
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q	Q as CFS												
Interfer	ence CFS												
(A) = To	otal Interf.												
( <b>B</b> ) = 80	% Nat. Q												
(C) = 1	% Nat. Q												
( <b>D</b> ) = (	$(\mathbf{A}) > (\mathbf{C})$	$\checkmark$	$\overline{\checkmark}$	$\checkmark$	$\checkmark$	$\overline{\checkmark}$	$\checkmark$						
(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: Not applicable.

## 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.  $\Box$  The permit should contain condition #(s)
- ii.  $\Box$  The permit should contain special condition(s) as indicated in "Remarks" below;

#### C6. SW / GW Remarks and Conditions: None.

References Used: Application files: G-19039, G-18589, G-18399

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.

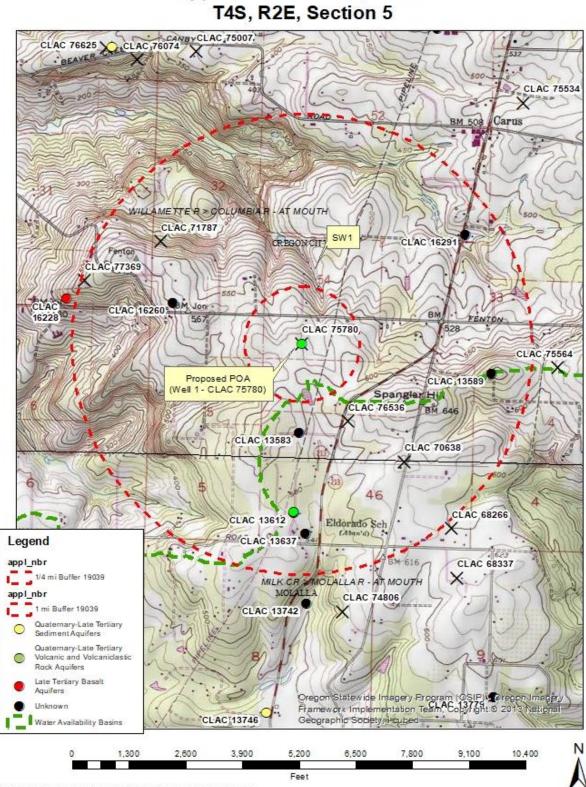
Gannett, M.W. and Caldwell, R., 1998, Geologic framework of the Willamette Lowland aquifer system, Oregon and Washington: U.S. Geological Survey Professional Paper 1424-A, 32 p.

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, 82 p.

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

D1.	Well #: <u>1</u>	Logid: <u>CLAC 7578</u>	30
D2.	<ul> <li>a. □ review of the well</li> <li>b. □ field inspection by</li> <li>c. □ report of CWRE</li> </ul>	,	on standards based upon: ; ;
D3. D4. 🕅			cribed as follows:

#### Well Location Map



Application G-19038, G-Can

Service Layer Credits: Copyright/0 2013 National Geographic Society, i-cubed

#### Water Availability Table

	/ater Resources Department ailability Analysis				#   0	Main 🕜 Help Return 🕒 Contact Us
		Wate	r Availability Analy Detailed Reports	/sis		
			AMETTE R > COLUMBIA R - AT MOUT WILLAMETTE BASIN	ТН		
Watershed ID #: 181 Date: 2/17/2023	1 <u>(Map)</u>		Water Availability as of 2/17/2023			Exceedance Level: 80% ~ Time: 2:03 PM
	Vater Availability Calculation	Consumptive Uses and Storages		Instream Flow Requirements	Reservation	s
	N N	/ater Rights		Waters	hed Characteristics	
	W	/ater Rights			hed Characteristics	
	v	Wat	er Availability Calculatio	'n	hed Characteristics	
	v	Wat	er Availability Calculatio	nd	hed Characteristics	
Month	Natural Stream Flow	Wat Monti Annual Consumptive Uses and Storages	nly Streamflow in Cubic Feet per Secor Volume at 50% Exceedance in Acre-F Expected Stream Flow	nd Get Reserved Stream Flow	Instream Flow Requirement	
Month JAN	Natural Stream How 27.500.00	Wat Montt Annual Consumptive Uses and Storages 2,700.00	nly Streamflow in Cubic Feet per Secor Volume at 50% Exceedance in Acre-F Expected Stream Flow 24,800.00	nd reet Reserved Stream Flow 0.00	instream Flow Requirement 1,500.00	23,300.0
Month JAN FEB	Natural Stream Flow 27,500.00 30,000.00	Wat Monti Annual Consumptive Uses and Storages 2,700.00 7,970.00	nly Streamflow in Cubic Feet per Secor Volume at 50% Exceedance in Acre-F Expected Stream Flow 24,800.00 22,000.00	nd reel Reserved Stream Frow 0.00 0.00	Instream Flow Requirement 1,500.00 1,500.00	23,300.0 20,500.0
Month JAN FEB MAR	Natural Stream & 600 27,500.00 30.000.00 28.500.00	Wat Monti Annual Consumptive Uses and Storages 2,700.00 7,970.00 7,550.00	nly Streamflow in Cubic Feet per Secor Volume at 50% Exceedance in Acre-F Expected Stream Flow 24,800.00 22,000.00 20,900.00	nd reet Reserved Stream From 0.00 0.00 0.00	Instream Flow Requirement 1,500.00 1,500.00 1,500.00	23,300.0 20,500.0 19,400.0
Month JAN FEB MAR APR	Natural Stream Flow 27,500.00 30,000.00 28,500.00 25,400.00	Wat Monti Annual Consumptive Uses and Storages 2,700.00 7,970.00 7,550.00 7,200.00	All         Streamflow in Cubic Feet per Second           Volume at 50%         Exceedance in Acre-F           Expected Stream Flow         24,800           22,000.00         22,000.00           20,900.00         18,200.00	Pn nd Reserved Stream Flow 0.00 0.00 0.00 0.00	Instream Flow Requirement 1,500.00 1,500.00 1,500.00 1,500.00	23,300.0 20,500.0 19,400.0 16,700.0
Month JAN FEB MAR APR MAY	Natural Stream Flow 27,500,00 30,000,00 28,500,00 25,400,00 20,700,00	Wat Monti Annual Consumptive Uses and Storages 2700.00 7.970.00 7.250.00 7.250.00 7.250.00 4.430.00	nly Streamflow in Cubic Feet per Secon Volume at 50% Exceedance in Acre-F Expected Stream Flow 22,000.00 22,000.00 18,200.00 16,300.00	200 nd eet Reserved Stream Frow 0.00 0.00 0.00 0.00 0.00	Instream Flow Requirement 1,500.00 1,500.00 1,500.00 1,500.00 1,500.00	23,300.0 20,500.0 19,400.0 16,700.0 14,800.0
Month JAN FEB MAR APR APR JUN	Natural Stream Flow 27.500.00 30.000.00 28.500.00 25.400.00 20.700.00 11.000.00	Wat Mont Annual Consumptive Uses and Storages 2,700,00 7,570,00 7,550,00 7,200,00 4,430,00 2,380,00	Ny Streamflow in Cubic Feet per Secor Volume at 50% Exceedance in Acre-F Expected Stream Flow 24,800 00 22,900 00 18,200.00 16,300.00 8,640.00	Pn red Reserved Stream Flow 0.00 0.00 0.00 0.00 0.00 0.00	Instream Flow Requirement 1,500.00 1,500.00 1,500.00 1,500.00 1,500.00 1,500.00	23,300. 20,500. 19,400. 16,700. 14,800. 7,140.
Month JAN FEB MAR APR MAY JUN JUL	Natural Stream Flow 27,500,00 30,000,00 28,500,00 25,500,00 25,000,00 11,000,00 6,280,00	Wat Monti Annual Consumptive Uses and Storages 2700.00 7.970.00 7.550.00 7.200.00 4.430.00 2.360.00 2.310.00	hly Streamflow in Cubic Feet per Secon Volume at 50% Exceedance in Acre-F Expected Stream Flow 24,80000 22,000.00 22,000.00 18,200.00 16,300.00 8,640.00 3,970.00	200 nd Reserved Stream Flow 0.00 0.00 0.00 0.00 0.00 0.00 0.00	Instream Flow Requirement 1,500,00 1,500,00 1,500,00 1,500,00 1,500,00 1,500,00 1,500,00	23,300.0 20,500.0 19,400.0 16,700.0 14,800.0 7,140.0 2,470.0
Month JAN FEB MAR APR MAY JUN JUL JUL AUG	Natural Stream Flow 27,500,00 28,500,00 25,500,00 25,400,00 11,000,00 6,280,00 4,890,00	Wat Monti Annual Consumptive Uses and Storages 2,700.00 7,550.00 7,250.00 2,360.00 2,360.00 2,310.00 2,070.00	Ny Streamflow in Cubic Feet per Secon Volume at 50% Exceedance in Acre-F Expected Stream Flow 24,800 00 20,900 00 18,200 00 16,300 00 8,640 00 3,970 00 2,820 00	Dn nd reet Reserved Stream Flow 0.00	Instream Flow Regificement 1,500.00 1,500.00 1,500.00 1,500.00 1,500.00 1,500.00 1,500.00 1,500.00	23,300 ( 20,500 ( 19,400 ( 16,700 ( 14,800 ( 7,140 ( 2,470 ( 1,320 (
Month JAN FEB MAR APR MAY JUL JUL AUG SEP	Natural Stream Flow 27,500,00 30,000,00 28,500,00 25,400,00 20,700,00 11,000,00 6,280,00 4,890,00 4,930,00	Wat Monti Annual Consumptive Uses and Storages 2700.00 7.550.00 7.500.00 4.430.00 2.360.00 2.370.00 2.070.00 1.650.00	hly Streamflow in Cubic Feet per Secon Volume at 50% Exceedance in Acre-F Expected Stream Flow 22,000.00 20,900.00 16,300.00 16,300.00 8,544.00 3,970.00 2,820.00 3,240.00	200 nd Reserved Stream Flow 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00	Instream Flow Requirement 1,500,00 1,500,00 1,500,00 1,500,00 1,500,00 1,500,00 1,500,00 1,500,00 1,500,00	23,300.0 20,500. 19,400.0 16,700.0 7,140.0 7,140.0 1,4800.0 7,140.0 1,320.0 1,320.0 1,320.0 1,740.0
Montt JAN FEB MAR APR MAY JUN JUL AUG SEP OCT	Natural Stream 5000 27,500,00 28,500,00 25,400,00 20,700,00 11,000,00 6,280,00 4,830,00 4,430,00 5,590,00	Wat Monti Annual Consumptive Uses and Storages 2,700.00 7,750.00 7,250.00 7,250.00 7,250.00 2,300.00 2,310.00 2,310.00 2,310.00 1,1696.00 7,35.00	Ny Streamflow in Cubic Feet per Secor Volume at 50% Exceedance in Acre-F Espectral Stream Flow 24,800 00 20,900 00 18,200 00 8,640 00 3,970 00 2,820 00 3,240 00 3,240 00 5,260 00	PD nd reet Reserved Stream From 0.00	Instream Flow Requirement 1,500.00 1,500.00 1,500.00 1,500.00 1,500.00 1,500.00 1,500.00 1,500.00 1,500.00 1,500.00 1,500.00	23,300.0 20,500.0 19,400.0 16,700.0 7,140.0 2,470.0 1,320.0 1,740.0 3,760.0
Monta JaN FEB APR MAY JUL JUL AUG SEP	Natural Stream Flow 27,500,00 30,000,00 28,500,00 25,400,00 20,700,00 11,000,00 6,280,00 4,890,00 4,930,00	Wat Monti Annual Consumptive Uses and Storages 2700.00 7.550.00 7.500.00 4.430.00 2.360.00 2.370.00 2.070.00 1.650.00	hly Streamflow in Cubic Feet per Secon Volume at 50% Exceedance in Acre-F Expected Stream Flow 22,000.00 20,900.00 16,300.00 16,300.00 8,544.00 3,970.00 2,820.00 3,240.00	200 nd Reserved Stream Flow 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00	Instream Flow Requirement 1,500,00 1,500,00 1,500,00 1,500,00 1,500,00 1,500,00 1,500,00 1,500,00 1,500,00	Net Water Availabi 22 300 0 29 500 0 16 700 0 14 800 0 7 140 0 2 470 0 1 740 0 2 490 0 1 2 900 0 2 1 900 0

#### Water-Level Measurements in Nearby Wells

