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.oregon.gov/OWRD

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A fee of $230 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: 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 503-979-9103.

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

1. File Information:

APPLICATION #	PERMIT # (IF APPLICABLE)	PERMIT AMENDMENT # (IF APPLICABLE)
G- 17236	G- 16701	T-

2. Property Owner (current owner information):

Applicant/Business Name	Phone No.	Additional Contact No.
Portland Veterans' Affairs Medical Center	(503-) 273-52222	
Address		
3710 S.W. U.S. Veterans Hospital Road		
City	**State**	**Zip**	**E-Mail**
Portland	Oregon	97239	

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		
Portland Veterans' Affairs Medical Center		
Address		
3710 S.W. U.S. Veterans Hospital Road		
City	**State**	**Zip**
Portland	Oregon	97239

Additional Permit Holder of Record		
Address		
City	**State**	**Zip**

4. Date of Site Inspection:

March 27, 2024 & April 30, 2024

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

Name	Date	Association with the Project
John Carrier	3-27-24 & 4-30-24	V.A. Hospital Health Care System Engineer

6. County:

Multnomah

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(5)):

Owner of Record		
N/A		
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		PHONE NO.	ADDITIONAL CONTACT NO.
Roger N. Smith		(503-)241-5444	(503-)781-9197
ADDRESS			
1400 S.W. Davenport Street			
CITY	STATE	ZIP	E-MAIL
Portland	Oregon	97201	RNSAgroundwater@gmail.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
JOHN DODIER Digitally signed by JOHN DODIER Date: 2024.05.13 08:48:08 -07'00'	John E. Dodier	Chief, Facilities	May 13, 2024

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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)
Hospital Emergency Water Well And	MULT 101972	100244
Irrigation Well		

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
MULT101972	Willamette River Basin	N/A

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)
MULT 101972	Irrigation	Landscaping	May - September	Avg over 12 yrs.; 1.99 AF/yr.
MULT 101972	Commercial	Construction	Oct., Nov., March,April	1.25 AF/yr. for 2 yrs.
Total Quantity of Water Used				29.74 Ac - ft. over 13 yrs.

see attached: Water Use Report

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:

see attached: Claim Narratives, **'Section 3, Item 4. 'VA Well Distribution System'**

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) NO

(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."*)

see attached: Claim Narratives, Sect 3, Item 5, 'Variations'

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
MULT 101972	0.025 cfs	**0.42 cfs**	0.16 cfs	Irrigation	1.97	2.32
MULT 101972	0.38 cfs	**0.39 cfs**	N/A	Commercial	N/A	N/A

see attached: Claim Narratives, Sect 3, Item 5 'Variations'

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SECTION 4

SYSTEM DESCRIPTION

Are there multiple POAs? YES (NO)

If *"YES"* you will need to copy and complete a separate Section 4 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 (NO)

If "YES" the table below may be deleted.

TWP	RNG	MER	SEC	QQ	GLOT	DLC	USE	IF IRRIGATION, # PRIMARY ACRES	IF IRRIGATION, # SUPPLEMENTAL ACRES
Total Acres Irrigated									

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. Groundwater Source Information (Well)

1. Is the appropriation from a well? (YES) NO

If "NO", items 2 through 4 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:

A well bubbler tube and pressure gauge using compressed air pressure to calculate water levels.

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
see attached: Drillers' Well Log						

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 atached: Diagram of Well

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C. Groundwater Source Information (Sump)

1. Is the appropriation from a dug well (sump)? YES (NO)

If "NO", items 2 through 4 relating to this section may be deleted.
Reminder: Construction standards for sumps can be found in OAR 690-210-0400.

2. If the appropriation involves a SUMP, provide the following information for each SUMP:

LENGTH	WIDTH	AVERAGE DIAMETER	MAXIMUM DEPTH	SURFACE AREA (IN ACRES)	VOLUME IN CUBIC FEET OR ACRE FEET

3. If the sump is curbed constructed with watertight surface curbing, describe the curbing:

CURBING MATERIAL (CONCRETE, CONCRETE TILES, OR STEEL)	IF CONCRETE, PROVIDE THE THICKNESS OF THE WALL

4. Provide sump volume calculations:

N/A

D. 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) NO

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
Unknown	Unknown	Unknown	Submersible	Unknown	3"

3. Motor Information:

MANUFACTURER	HORSEPOWER
Unknown	20 hp

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)
20	top of irrigation storage tank	320 ft.	N/A	0.42

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5. Provide pump calculations:

see attached: 'Pump Calculations'

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)

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

7. Is the distribution system piped? (YES) NO

If "NO" items 8 through item 13 may be deleted.

8. Mainline Information:

Mainline Size	Length	Type of Pipe	Buried or Above Ground
see attached; 'Variance Approval', also see Section 3, Item 4. 'Narrative of the VA Well Distribution			
System' in Claim Narratives			

9. Lateral or Handline Information:

Lateral or Handline Size	Length	Type of Pipe	Buried or Above Ground
see attached; 'Variance Approval' also see Section 3, Item 4. 'Narrative of the VA Well Distribution			
System' in Claim Narratives			

10. Sprinkler Information:

Size	Operating PSI	Sprinkler Output (GPM)	Total Number of Sprinklers	Maximum Number Used	Total Sprinkler Output (cfs)
see attached; 'Sprinkler Head Summary'					

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

11. Drip Emitter Information:

Size	Operating PSI	Emitter Output (GPM)	Total Number of Emitters	Maximum Number Used	Total Emitter Output (cfs)
N/A					

12. Drip Tape Information:

Dripper Spacing in Inches	GPM per 100 Feet	Total Length of Tape	Maximum Length of Tape Used	Total Tape Output (cfs)	Additional Information
N/A					Received
					MAY 16 2024

13. Pivot Information: OWRD

Manufacturer	Maximum Wetted Radius	Operating PSI	Total Pivot Output (GPM)	Total Pivot Output (cfs)
N/A				

E. Storage

1. Does the distribution system include in-system storage (e.g. storage tank, bulge in system / reservoir)? (YES) NO

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

If "YES" is it a: Storage Tank (YES) NO

Bulge in System / Reservoir YES (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
Irrigation Storage Polyethylene Tank	Capacity 2,200 gallons	above ground
Emergency Backup Storage Steel Tank	Capacity 97,000 gallons	above ground

3. Bulge in System / Reservoir:

Reservoir Name or Number (correspond to map)	Approximate Dam Height	Approximate Capacity (in acre feet)
N/A		

F. 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? YES (NO)

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

2. Complete the table:

Pipe Size	Pipe Type	"C" factor	Amount of Fall	Length of Pipe	Slope	Computed Rate of Water Flow (in cfs)
N/A						

3. Provide calculations:

N/A

4. If an actual measurement was taken, provide the following:

Date of Measurement	Who Made the Measurement	Measurement Method	Measured Quantity of Water (in cfs)
N/A			

Attach measurement notes.

G. 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? YES (NO)

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

2. Complete the table:

Canal or Ditch Type (material)	Top Width of Canal or Ditch	Bottom Width of Canal or Ditch	Depth	"N" Factor	Amount of Fall	Length of Canal / Ditch	Slope	Computed Rate (in cfs)
N/A								

3. Provide calculations:

N/A

4. If an actual measurement was taken, provide the following:

Date of Measurement	Who Made the Measurement	Measurement Method	Measured Quantity of Water (in cfs)
N/A			

Attach measurement notes.

H. Additional notes or comments related to the system:

see attached: Claim Narratives

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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	05/06/2010		
Begin construction (A)	3 mo. before	2/22/2010	Well Drilled, Irrig. system already exists
Complete construction (B)	1 yr. & 1 mo.	6/2011	Irrigation System Connected to Well
Complete application of water (C)	2 yr. & 5 mo.	10/2012	Both Irrigation and Commercial Use accomplished

* 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** (**NO**)

If "NO", items a and b relating to this section may be deleted.

a. Did the Extension Final Order require the submittal of Progress Reports? **YES** **NO**

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

b. Were the Progress Reports submitted? **YES** **NO**

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

3. Initial Water Level Measurements:

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

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

b. What month was the initial measurement to be taken in?

February

c. Was the measurement submitted to the Department? (**YES**) **NO**

d. If the initial measurement was not submitted, provide that measurement now, if available:

Date of Measurement	Measurement Made By	Method	Measurement

4. Annual Static Water Level Measurements:

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

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

b. Provide the month, or months, the static water level measurement(s) were to be made:
March

c. Were the static water level measurements taken in the month(s) required? (YES) NO

d. If "YES", were those measurements submitted to the Department? (YES) NO

e. If the annual measurements were not submitted, provide the measurements now:

Date of Measurement	Measurement Made By	Method	Measurement

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5. Pump Test:

a. Did the permit require the submittal of a pump test? (YES) NO

Ground water permits with priority dates on or after **December 20, 1988**, require the submittal of a pump test prior to issuance of a certificate. In some cases, the permit holder may qualify for a multiple well exemption or an unreasonable burden exemption.

For additional information regarding pump tests see:
https://www.oregon.gov/OWRD/programs/GWWL/GW/Pages/PumpTestProgram.aspx

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

b. Has the pump test been previously submitted to the Department? YES (NO)

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

d. Has the pump test been approved by the Department? YES (NO)

e. Has a pump test exemption been approved by the Department? YES (NO)

**** 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) 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 or appropriation.

b. Has a meter been installed? (YES) NO

c. Meter Information

POD/POA Name or #	Manufacturer	Serial #	Condition (working or not)	Current Meter Reading	Date Installed
MULT 101972	Meter #1(All Water)	Removed	Working	1,266,314 ft^3	9/2010
MULT 101972	Meter #2 (irrigation & commercial)	Removed	Working	1,184,876 ft^3	9/2010
MULT 101972	Meter #3 (potable) Emergency/Backup Water	Removed	Working	12,276.4 ft^3	9/2010

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

d. If a meter has not been installed, has a suitable measuring device been installed and approved by the Department? YES NO

e. If "YES", provide a copy of the letter approving the device, if available. If the letter is not available provide the name and title of the Water Resources Department employee approving the measuring device, and the approximate date of the approval:

NAME	TITLE	APPROXIMATE DATE
N/A		

f. Measurement Device Description

DEVICE DESCRIPTION	CONDITION (WORKING OR NOT)	DATE INSTALLED
N/A		

7. Recording and reporting conditions:

a. Is the water user required to report the water use to the Department? (YES) NO

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

b. Have the reports been submitted? (YES) NO

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? YES (NO)

b. Was submittal of a ground water monitoring plan required? YES (NO)

c. Was submittal of a water management and conservation plan required? YES (NO)

d. Was a Well Identification Number (Well ID tag) assigned and attached to the well? (YES) NO

WELL ID #	DATE ATTACHED TO WELL
100244	02/22/2010

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e. Other conditions? YES (NO)

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

see attached: 'Well Hydrograph & Water Use Reports', also see 'Well Tag Photo'

SECTION 6

ATTACHMENTS

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

ATTACHMENT NAME	DESCRIPTION
see attached; List of Attachments and Descriptions	

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 u se su rvey, 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.

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Attachment Name	Description
1.) Campus Map	Identifies Buildings
2.) Water Use Permit & Timeline Illustration	Shows No Extension Needed
3.) Claim Narratives	Sec. 3-4, Sec. 3-5, Sec. 5-8
4.) Drillers' Well Log	Shows Well Construction
5.) Diagram of Well	Illustration Of Well
6.) Well Hydrograph & Water Use Reports	2010 to 2023
7.) Well Tag Photo	L-10244
8.) Pump Test Document	Shows Performance of Required Test
9.) Pump Calculations	Irrigation & Emergency System
10.) Sprinkler Head Summary	Table of Sprinkler Types, Rates, & PSI
11.) Gould Booster Pump	Pump Specifications
12.) Variance Approval	For Calculating Irrigation System Flow
13.) Elizabeth Caruthers DLC 42	DLC Map

Attachment 1:

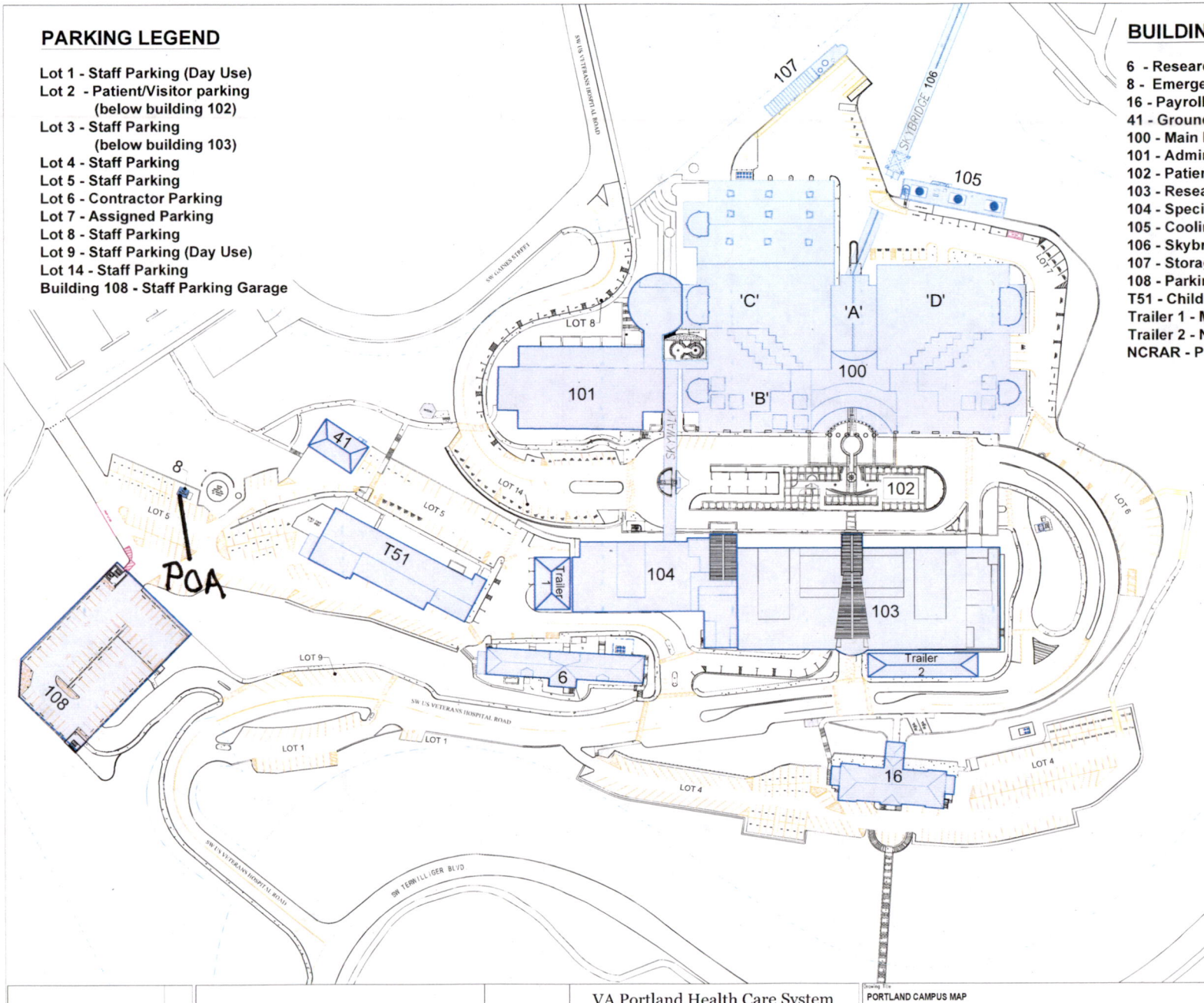
Campus Map

PARKING LEGEND

Lot 1 - Staff Parking (Day Use)
Lot 2 - Patient/Visitor parking (below building 102)
Lot 3 - Staff Parking (below building 103)
Lot 4 - Staff Parking
Lot 5 - Staff Parking
Lot 6 - Contractor Parking
Lot 7 - Assigned Parking
Lot 8 - Staff Parking
Lot 9 - Staff Parking (Day Use)
Lot 14 - Staff Parking
Building 108 - Staff Parking Garage

BUILDING LEGEND

6 - Research
8 - Emergency Water Well
16 - Payroll & Human Resources (HR)
41 - Grounds Shop
100 - Main Hospital
101 - Admin & Research
102 - Patient Parking
103 - Research, Primary Care Clinic
104 - Specialty Clinic, Women's Health, Mental
105 - Cooling Towers
106 - Skybridge to OHSU
107 - Storage
108 - Parking Garage
T51 - Child Care, OI&T, AFGE Union, Fitness
Trailer 1 - Mental Health
Trailer 2 - NWIC
NCRAR - P5 Level, Building 103



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29.60 ACRES

SCALE: NO SCALE

VA Portland Health Care System
(VAPORHCS)
VA | U.S. Department of Veterans Affairs

Drawing Title	PORTLAND CAMPUS MAP
Project Title	PORTLAND SITE PLAN
Date	10/11/23
Project No.	648
Building No.	SITE
Checked By/Proj Mgr	FMS
Drawn By	CAD
Location	PORTLAND CAMPUS
Drawing No.	CS-1
Dwg.	1 of 1

Approved: Proj. Eng | Approved: Infect. Cont. | Approved: Chief P&O | Approved: Chief M&R | Approved: Safety Mgr.
Approved: Service Chief | Approved: Chief Facilities Mgmt | Approved: VAPORHCS Director

PORTLAND CAMPUS MAP

Attachment 2:

Water Use Permint &

Timeline Illustration

STATE OF OREGON

COUNTY OF MULTNOMAH

PERMIT TO APPROPRIATE THE PUBLIC WATERS

THIS PERMIT IS HEREBY ISSUED TO

PORTLAND VA MEDICAL CENTER
PO BOX 1034
PORTLAND, OR 97207

The specific limits and conditions of the use are listed below.

APPLICATION FILE NUMBER: G-17236

SOURCE OF WATER: A WELL IN WILLAMETTE RIVER BASIN

PURPOSE OR USE: COMMERCIAL USE AND IRRIGATION OF 1.97 ACRES

MAXIMUM RATE: 0.38 CUBIC FOOT PER SECOND (CFS), FURTHER LIMITED TO 0.025 CFS FOR IRRIGATION

PERIOD OF USE: COMMERCIAL - YEAR ROUND
IRRIGATION - MAY 1 THROUGH SEPTEMBER 30

DATE OF PRIORITY: JUNE 18, 2009

WELL LOCATION: NE ¼ SE ¼, SECTION 9, T1S, R1E, W.M.; 305 FEET NORTH AND 615 FEET WEST FROM SE CORNER, NE ¼ SE ¼, SECTION 9

The amount of water used for irrigation under this right, together with the amount secured under any other right existing for the same lands, is limited to a diversion of ONE-EIGHTIETH of one cubic foot per second and 2.5 acre-feet for each acre irrigated during the irrigation season of each year.

THE PLACE OF USE IS LOCATED AS FOLLOWS:

NE ¼ SE ¼ 1.83 ACRES IRRIGATION AND COMMERCIAL
SECTION 9

NW ¼ SW ¼ 0.14 ACRE IRRIGATION AND COMMERCIAL
SECTION 10
TOWNSHIP 1 SOUTH, RANGE 1 EAST, W.M.

Measurement, recording and reporting conditions:

A. Before water use may begin under this permit, the permittee shall install a totalizing flow meter or other suitable measuring device as approved by the Director at each point of

appropriation. The permittee shall maintain the meter or measuring device in good working order.

B. The permittee shall keep a complete record of the amount of water used each month, and shall submit an annual report which includes the recorded water use measurements to the Department by December 1 of each year. Further, the Director may require the permittee to report general water-use information, including the place and nature of use of water under the permit.

C. The permittee shall allow the watermaster access to the meter or measuring device; provided however, where the meter or measuring device is located within a private structure, the watermaster shall request access upon reasonable notice.

D. The Director may provide an opportunity for the permittee to submit alternative measuring and reporting procedures for review and approval.

The well(s) shall produce ground water only from the basalt ground water reservoir between approximately zero feet and 1000 feet below land surface.

(1) Use of water from any well, as allowed herein, shall be controlled or shut off if the well displays:

(a) An average water level decline of three or more feet per year for five consecutive years; or

(b) A total water level decline of fifteen or more feet; or

(c) A hydraulic interference decline of fifteen or more feet in any neighboring well providing water for senior exempt uses or wells covered by prior rights.

(2) The permittee/appropriator shall be responsible for complying with each of the following requirements for measuring water levels in the well(s).

(a) Use of water from a new well shall not begin until an initial static water level in the well has been measured and reported to the Department.

(b) In addition to the measurement required in subsection (a) of this section, a water level measurement shall be made each year during the period March 1 through March 31.

(c) All water level measurements shall be made by a qualified individual. Qualified individuals are certified water rights examiners, registered geologists, registered professional engineers, licensed land surveyors, licensed water well constructor, licensed pump installer, or the permittee/appropriator.

(d) Any qualified individual measuring a well shall use standard methods of procedure and equipment designed for the purpose of well measurement. The equipment used shall be well suited to the conditions of construction at the well. A list of standard methods of procedure and suitable equipment shall be available from the Department.

(e) The permittee/appropriator shall report the record of measurement to the Department on a form available from the Department. The record of measurement shall include both measurements and calculations, shall include a certification as to their accuracy signed by the individual making the measurements, and shall be submitted to the Department within 90 days from the date of measurement. The Department shall determine when any of the declines cited in section (1) are evidenced by the well measurement required in section (2).

Prior to using water from any well listed on this permit, the permittee shall ensure that the well has been assigned an OWRD Well Identification Number (Well ID tag), which shall be permanently attached to the well. The Well ID shall be used as a reference in any correspondence regarding the well, including any reports of water use, water level, or pump test data.

STANDARD CONDITIONS

Failure to comply with any of the provisions of this permit may result in action including, but not limited to, restrictions on the use, civil penalties, or cancellation of the permit.

If the number, location, source, or construction of any well deviates from that proposed in the permit application or required by permit conditions, this permit may be subject to cancellation, unless the Department authorizes the change in writing.

If substantial interference with a senior water right occurs due to withdrawal of water from any well listed on this permit, then use of water from the well(s) shall be discontinued or reduced and/or the schedule of withdrawal shall be regulated until or unless the Department approves or implements an alternative administrative action to mitigate the interference. The Department encourages junior and senior appropriators to jointly develop plans to mitigate interferences.

The well(s) shall be constructed in accordance with the General Standards for the Construction and Maintenance of Water Wells in Oregon. The works shall be equipped with a usable access port, and may also include an air line and pressure gauge adequate to determine water level elevation in the well at all times.

If the riparian area is disturbed in the process of developing a point of appropriation, the permittee shall be responsible for restoration and enhancement of such riparian area in accordance with ODFW's Fish and Wildlife Habitat Mitigation Policy OAR 635-415. For purposes of mitigation, the ODFW Fish and Wildlife Habitat Mitigation Goals and Standards, OAR 635-415, shall be followed.

The use may be restricted if the quality of downstream waters decreases to the point that those waters no longer meet existing state or federal water quality standards due to reduced flows.

Where two or more water users agree among themselves as to the manner of rotation in the use of water and such agreement is placed in writing and filed by such water users with the watermaster, and such rotation system does not infringe upon such prior rights of any water user not a party to such rotation plan, the watermaster shall distribute the water according to such agreement.

Prior to receiving a certificate of water right, the permit holder shall submit to the Water Resources Department the results of a pump test meeting the Department's standards for each point of appropriation (well), unless an exemption has been obtained in writing under OAR 690-217. The Director may require water-level or pump-test data every ten years thereafter.

This permit is for the beneficial use of water without waste. The water user is advised that new regulations may require the use of best practical technologies or conservation practices to achieve this end.

By law, the land use associated with this water use must be in compliance with statewide land-use goals and any local acknowledged land-use plan.

Completion of construction and application of the water shall be made within five years of the date of permit issuance. If beneficial use of permitted water has not been made before this date, the permittee may submit an application for extension of time, which may be approved based upon the merit of the application.

Within one year after making beneficial use of water, the permittee shall submit a claim of beneficial use, which includes a map and report, prepared by a Certified Water Rights Examiner.

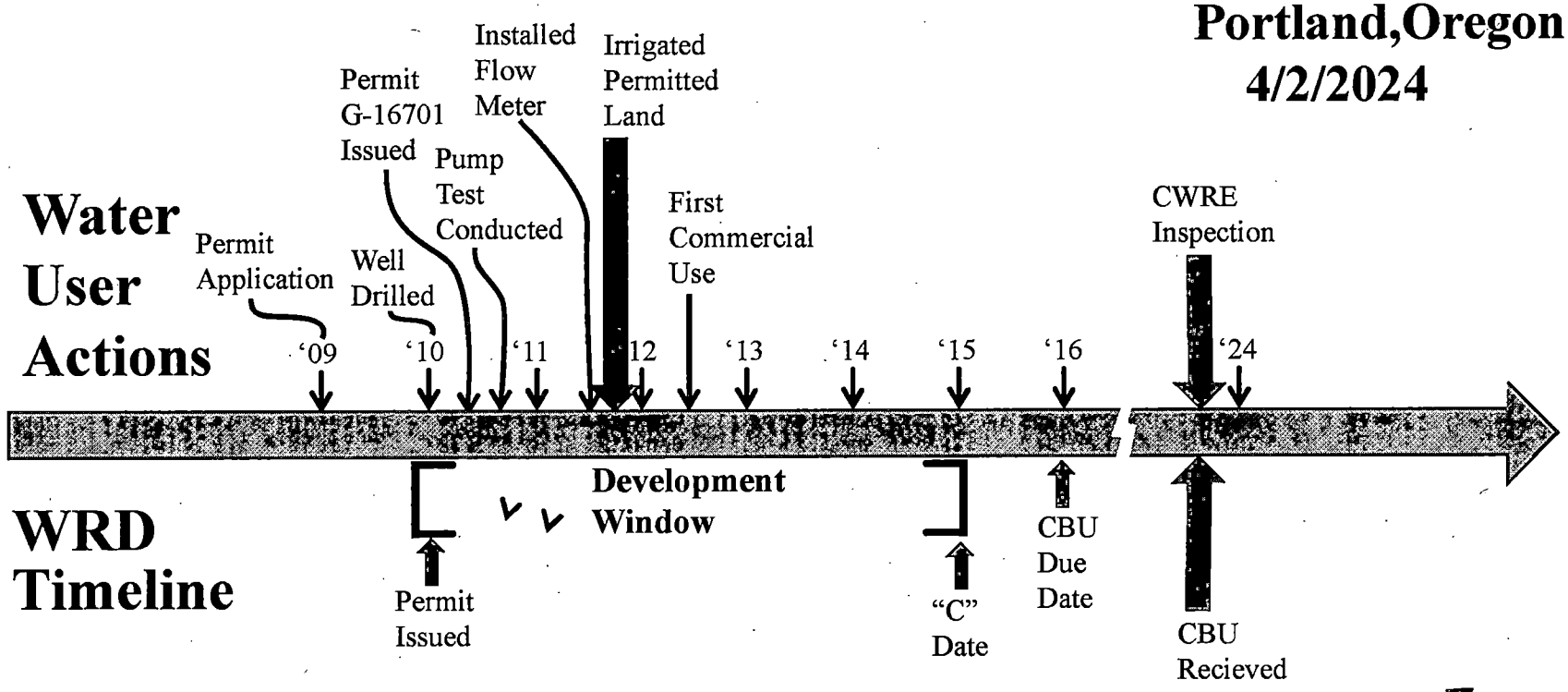
Issued May 6 , 2010

E. Timothy Wall

for Phillip C. Ward, Director
Water Resources Department

Permit Development Timeline - Late Claim

For: V.A. Medical Center
Portland,Oregon
4/2/2024



Attachment 3:

Claim Narratives

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Section 3, Item 4. Narrative of the VA Well Distribution System

Wellhead and Wellhouse Equipment

The Point of Appropriation (POA) for Permit G-16701 is a water well (MULT 101942) located in a well house constructed in the staff parking lot #5 in the southwest portion of the VA Portland Health Care campus (3710 SW US Veterans Hospital Road, Portland, OR 97239). The wellhouse is located approximately 177 feet southwest of Building T51 (see campus map attached). The 569-foot deep well draws water from the Columbia River Basalt Aquifer (CRBA) through 1,368 perforations (1/8"-wide x 3"-long) in the bottom 30 feet of a 6-inch steel well casing. A 20-hp submersible pump delivers water to the surface through a 3-inch galvanized riser pipe. Drawdown in the well during pumping is approximately 20 feet (based on a 2010 pump test). The top of the wellhead is 14" above the concrete floor of the wellhouse. The top of the 8-inch diameter surface well casing is equipped with a conventional steel and rubber bolted surface well seal. One of the well seal ports is equipped with a bubbler tube arrangement, including an air valve stem for connecting an air compressor and a pressure gauge for measuring pressure for determining well casing water levels. The bottom of the bubbler tube is documented to be 504 feet below the top of the well casing. There are two other ports in the wellhead seal; one is being used for electrical lines to the submersible pump and the other for a goose-necked well vent that prevents vacuum or air pressure from accumulating in the well casing during water level fluctuations. If a manual water level was needed in the well, the goose-neck could be removed.

The discharge line emerging from the well connects into a 3-inch schedule 80 PVC line at the wellhead. The PVC line then connects to Water Meter #1 which measures total volume of water pumped from the well. Both the irrigation and commercial (emergency backup water) flows through this meter. Downstream of Meter #1 is a 'T' where well water is diverted either to the irrigation system or to the commercial backup system. The 'T' has a valve which controls the water flow direction. The valve is reported to direct all water to either irrigation or to the commercial backup but the valve cannot allow a partial flow to both systems at the same time. Downstream of the 'T' valve there is a meter for the irrigation system in one direction and a separate meter for the commercial backup system in the other direction. The irrigation flow is measured by a meter identified here as Meter #2 and the commercial backup line meter identified here as Meter #3. Note: there are no identifying serial numbers on any of the meters requiring, for clarity, the numbers assigned in this narrative. All three water meters are model T-450 'Recordalls' manufactured by Badger. All meters appear to be functioning at the time of inspection (3/27/24). A second site visit was made (4/30/24) to measure flow rates from the well into the irrigation storage tank. All water meters were monitored during the test. It was noted that Meter #2 (irrigation side of system) was registering flow volumes approximately 37% higher than Meter #1. The volumes measured by Meter #1 and #2 should have been the same since no water was being diverted to the potable water side of the system. Meter #1 was determined to be the most accurate, as related to the measured volume in the poly irrigation tank following the test. Therefore, it would be recommended this meter be used for water use determination.

Irrigation System

Once irrigation water flows through Meter #2, it is piped through the wellhouse wall and discharges into the upper portion (about 10 feet above the wellhead) of an above-ground 2,200-gallon polyethylene tank located immediately outside the north wall of the building.

Water from the well flowing into this storage tank occurs at the rate which the submersible pump can supply the water, in other words there is no variable frequency drive controller system for the pump. However, if a ball valve was installed in this line flow rates could be managed. As part of this Claim it was calculated, with the present arrangement, the 20 hp submersible pump could deliver water into the poly tank at a rate 0.42 cfs (see calculations in attached claim documents). This is above the permitted 0.025 cfs. However, when a field flow rate test of well water to the irrigation poly tank was performed on April 30th, 2024; the actual rate measured was 0.16 cfs (73 gpm). This flow was determined by switching on the pump and monitoring Meter #1 for 23.5 minutes while pumping 1,720 gallons into the poly storage tank.

The poly storage tank in the irrigation system stores water until the automated sprinkler system signals a need for water. When activated, water flows out of the bottom of the poly tank, through a 2-inch line for approximately 20 feet then back into the wellhouse and through a Gould model e-SV 4-stage booster pump. This pump pressurizes the irrigation water, pushes it through a Hayward water filter then out to the irrigation network. The booster pump consists of a Baldor Reliance Super E, 5 hp motor connected to a Gould e-SV 4-stage pump (catalog #10SV4GB30, see attached technical details). The Gould catalog indicates the pump has the capacity of producing flows up to 30 gpm. Based on irrigation drawings supplied by the VA, the sprinklers across the VA campus operate at pressures between 4 and 35 psi. In addition, the irrigation network consists of zones which are watered by automatic control valves. Zones are irrigated at different times for different lengths of time, depending on water needs of the various types of landscaping (this system includes indoor atrium plantings and those in large containers on roofs and incorporated into a traffic divider at the entrance to the hospital). The main distribution lines (based on the architectural drawings) are either 2-inch or 2 1/2-inch PVC. Laterals are typically 1-inch, 1 ¼- inch, or 1 ½-inch. The laterals connect to ¾-inch sprinkler distribution lines. There are a total of 556 sprinklers mapped across the campus. This array is made up of 9 different types of sprinkler heads each of which can have different flows depending on their range and breadth of coverage. A summary table, 'Sprinkler Head Table' is attached to this Claim that shows the distribution of the sprinkler types, their required psi, and gallons per minute flow with different spray patterns. The water demand for the system at any one time would be very difficult to determine because of the varied array of sprinklers within the irrigation zones that are automatically activated at different times. The calculations of theoretical flow in this complex system would likely have little value in determining the maximum or actual water use. Therefore, a variance for this Claim requirement was requested and granted by ODWR (see attached: variance). However, a rough estimate of permit compliance flow can be obtained from the total volume of water pumped to the irrigated landscape which is recorded monthly and has been reported annually to the ODWR since 2010 (see attached: Water Use Reports). The range of annual water use for irrigation (excluding well water used for other purposes (see 'commercial

water use' below) is reported to be between 0.54 and 3.71 ac-ft with the average irrigation-applied well water over the past 12 years being 1.99 ac-ft/year. This average water use falls within the 2.5 ac-ft/year/ac or 4.93 ac-ft/yr for the 1.97 acres allowed in the permit.

Commercial/Potable Water System

The commercial (also referred here as emergency and potable) water supply side of the distribution system, as described above, is separated from the irrigation water at a 'T' near the wellhead. This water is diverted through Meter #3 then into a manifold system which separates the flow into a bank of three UV water treatment units. Water emerging from the UV system, recombines and then flows through a filter. At the time of the site inspections (March and April, 2024), no connection was observed for the pipe at the downstream end of the filter to an existing water distribution line that extends from the wellhouse to a potable water storage tank. However, it appears the connection could be quickly made in the event of a water emergency since a water line was observed to extend from the wellhouse to the top of the potable water tank. When connected, the treated water would be conveyed to the top of the 97,000- gallon steel tank, at a height of approximately 40 feet above the wellhead. This storage tank is located approximately 35 feet north of the wellhouse and is shown on the Claim map. This storage tank is normally filled with municipal water from the Portland City Water system. Water from this tank is distributed throughout the hospital campus and is not used for irrigation. The commercial back-up system would supply water in the event of a disruption in the existing municipal water source. Meter #3 recorded 91,830 gallons (0.28 ac-ft) having had been run through this treated water system (based on the 3/27/24 meter reading). Although a modest amount, this use satisfies the construction and beneficial use of this part of the system. A field test of the system for flow rates was not allowed by the hospital because such an operation would involve pumping well water into the 97,000- gallon potable water storage tank. However, theoretical flow rates have been calculated and are attached to this Claim.

Commercial Water Use

Well water from the VA Campus POA has also been used during the construction of a parking garage in 2012, 2013 and possibly 2015. This construction has been described by site personnel and is documented by the monthly readings of the 'Water Use Reports' (attached). This water use occurred when the irrigation water lines were tapped to supply construction needs. Based on the 'Water Use' records a volume between 1.22 ac-ft (391,021 gal) and 2.49 (811,369 gal) were used with an average 3,388 gal/day over the 8-month period. This commercial water use along with the water use recorded on Meter #3 fulfills the requirement of completing development and beneficial use of the groundwater before the C' date of May 6, 2015.

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Section 3, Item 5. Variations

1.) The permit for the VA Medical Center allows irrigation on 1.97 acres (see permit attached). A careful measurement of the irrigated area shown on landscape architecture drawings identified an area of 2.32 acres being irrigated. Comparing the landscape map area with the original permit application map (G-16701), it is noted the permit map left out a zone of plants in large square concrete planters which are used as a sitting area and roadway divider at the front of the hospital entrance. Also, large roof planters and a landscaped atrium were not included in the original permit area. To address this discrepancy between the permitted and the existing irrigated area, the following is proposed: A portion of the VA well water is considered 'exempt use' which allows irrigation of up to 0.50 acres without a permit. Although there is a permit on this property; the exempt portion of use is still considered to apply. Therefore, the VA is using the full permitted area of 1.97 acres as well as an additional 0.35 acres of exempt use area.

2.) The VA permit allows discharge from the POA of the VA Medical Center for commercial use of 0.38 cfs. The theoretical flow rate for water to be pumped from 310 feet below ground level (290' static + 20' pump test drawdown) to the top of the potable water tank (30-foot-tall tank + 10-foot bottom of tank above wellhead) results in a calculated 0.378 cfs (see attached pump calculations). This theoretical rate, if rounded, meets the allowed 0.38 cfs. An actual flow rate test to the commercial tank was not allowed by the hospital because of a concern of mixing well water with the municipal water.

3.) The VA water right permit allows 0.025 cfs for irrigation. The actual flow rate of water pumped from the well into the polyethylene irrigation storage tank was measured at 0.16 cfs (flow test 4-30-24). This flow rate does not go directly to the irrigation sprinklers but is retained in the tank until the automated system indicates a need for water. When this occurs, water is then dispensed into the irrigation lines through a booster pump. The booster pump does not have a water meter to be able to measure flow rates but is rated as having a theoretical capacity of 0.067 cfs (30 gpm) at 30 psi (see Gould booster pump technical data attached). However, the constructed well and distribution system has the capacity to meet the 0.025 cfs of the permit and up to a rate of 0.16 cfs. This extra appropriation is considered to be occurring under the exempt use which has no restriction on flow rates.

Section 5, Item 8. Recording and Reporting Conditions

The water user for this permit is required to record monthly water use and report it to ODWR annually. This has been done since well water use began in June, 2011. Monthly water use records have been kept and reported. Copies of the Department's Water Use Report summary for years 2011 thru 2023 are included in this Claim (see attached: Well Hydrograph and Water Use Records).

The well ID tag (L 100244) was confirmed to be attached to the well head during the site inspection on March 27, 2024. A photograph of the well tag was taken at that time and a copy is included in this Claim (see attachment: Well Tag Photo).

Attachment 4:

Drillers' Well Log

MULT 101972

STATE OF OREGON
WATER SUPPLY WELL REPORT
(as required by ORS 537.765)

Arrow 10-092

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MAY 16 2024
OWRD

WELL ID # L 100244
START CARD # 202518

(1) LAND OWNER:
Well Number: _____
Name: Portland VA Medical Center
Address: 3710 SW US Veterans Hospital Road
City: Portland State: OR Zip: 97239

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

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

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

(5) BORE HOLE CONSTRUCTION:
Special Construction approval ☐Yes ☒No
Depth of Completed Well 569
Explosives Used ☐Yes ☒No Type _____ Amount _____

HOLE Diameter	From	To	Material	SEAL From	To	sacks or pounds
16"	0	8	cement	0	353	195 sacks
12"	8	353				
8"	353	569				

How was seal placed: Method ☐A ☐B ☒C ☐D ☐E
☐ Other
Backfill placed from ____ to ____ Material ____
Gravel placed from ____ to ____ Size of gravel ____

(6) CASING/LINER:
CASING:

Diameter	From	To	Gauge	Steel	Plastic	Welded	Threaded
8"	+14"	353'	.250	☒	☐	☒	☐
				☐	☐	☐	☐
				☐	☐	☐	☐
				☐	☐	☐	☐

LINER:

6"	344	569	.250	☒	☐	☒	☐
				☐	☐	☐	☐

Drive Shoe used ☐ Inside ☒ Outside ☐ None
Final location of Shoe(s): 8" 353' 6" top and bottom of liner

(7) PERFORATIONS/SCREENS:
☒Perforations Method: factory mill slotted
☐Screen Type: _____ Material: _____

From	To	Slot Size	No.	Tele/pipe Diameter	size	Casing	Liner
536	569	1/8x3	1368	6"	pipe	☐	☒
						☐	☐
						☐	☐
						☐	☐

(8) WELL TESTS: Minimum testing time is 1 hour
☐Pump ☐Bailer ☒Air ☐Flowing Artesian

Yield gpm	Drawdown	Drill Stem at	Time
221	N/A	565	1 hr.

Temperature of water 52 Depth Artesian Flow Found _____
Was a water analysis done? yes By whom: Arrow
Did any strata contain water not suitable for intended use? explain
Depth of Strata: _____

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WATER RESOURCES DEPT
SALEM, OREGON

ARROW DRILLING 503-538-4422

(9) LOCATION OF WELL by legal description:
County: Mult. Latitude: _____ Longitude: _____
Township: 1S Range: 1E
Section: 09AD NE ¼ SE ¼
Tax Lot: 1600 Lot: _____ Block: _____ Subdivision: _____
Street Address of Well (or nearest address) 3710 SW US Veterans Hospital Road, Portland, Oregon 97239

(10) STATIC WATER LEVEL:
290 Ft. below land surface Date 2/22/10
Artesian pressure _____ lb. per sq. in. Date _____

(11) WATER BEARING ZONES:
Depth at which water was first found 64'

From	To	Est. Flow Rate	SWL
64	64	< 5 gpm	dnm
315	335	+- 20 gpm	133'
404	569	221 gpm	290'

(12) WELL LOG: Ground Elevation: _____

Material	From	To	SWL
asphalt and gravel fill	0	1	
Silt brwn	1	21	
clay gray stiff	21	23	
Clay gray silty	23	25	
clay brwn silty	25	29	
clay brwn med	29	64	
basalt gray/brwn wthd	64	91	
basalt gray med wthd	91	118	
basalt gray/brwn med wthd	118	132	
basalt brwn/gray med	132	143	
basalt gray med-hrd occ fract	143	182	
basalt gray/brwn slightly vesic	182	197	
basalt brwn/gray med fract	197	227	
basalt gray med-hrd occ fract	227	240	
basalt gray hrd w/occ fract	240	296	
basalt gray/brwn hrd fract	296	315	
basalt brwn decomp vesic	315	335	
basalt gray/blk hrd occ fract	335	404	
basalt blk/gray slightly vesic	404	429	
basalt brwn decomp vesic	429	437	
basalt gray vesic bkn occ brwn	437	449	
basalt gray/brwn wthd bkn	449	460	
basalt brwn/red decomp vesic	460	467	
basalt gray hrd	467	476	
basalt gray hrd fract w/brwn seams	476	490	
(continued on page 2)			

Date Started: 1/21/10 Completed: 2/22/10

(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 1483
Signed _____ Date 3/9/10

ORIGINAL - Water Resources Department FIRST COPY - Constructor SECOND COPY - Customer

STATE OF OREGON **MULT 101972** Arrow 10-002 PAGE 2 OF 2 **WELL ID # L 100244**
WATER SUPPLY WELL REPORT **START CARD # 202518**
(as required by ORS 537.765)

(1) LAND OWNER:
Well Number: _____
Name: Portland VA Medical Center
Address: 3710 SW US Veterans Hospital Road
City: Portland State: OR Zip: 97239

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

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

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

(5) BORE HOLE CONSTRUCTION:
Special Construction approval ☐Yes ☐No
Depth of Completed Well _____
Explosives Used ☐Yes ☐No Type _____ Amount _____

HOLE Diameter	From	To	Material	SEAL From	To	sacks or pounds

How was seal placed: Method ☐A ☐B ☐C ☐D ☐E
☐ Other _____
Backfill placed from _____ to _____ Material _____
Gravel placed from _____ to _____ Size of gravel _____

(6) CASING/LINER:
CASING:

Diameter	From	To	Gauge	Steel	Plastic	Welded	Threaded
				☐	☐	☐	☐
				☐	☐	☐	☐
				☐	☐	☐	☐
				☐	☐	☐	☐

LINER:

				☐	☐	☐	☐
				☐	☐	☐	☐

Drive Shoe used ☐ Inside ☐ Outside ☐ None
Final location of Shoe(s): _____

(7) PERFORATIONS/SCREENS:
☐Perforations Method: _____
☐Screen Type: _____ Material: _____

From	To	Slot Size	No.	Diameter	Tele/pipe size	Casing	Liner
						☐	☐
						☐	☐
						☐	☐
						☐	☐
						☐	☐

(8) WELL TESTS: Minimum testing time is 1 hour
☐Pump ☐Bailer ☐Air ☐Flowing Artesian

Yield gpm	Drawdown	Drill Stem at	Time
			1 hr.

Temperature of water ____ Depth Artesian Flow Found _____
Was a water analysis done? ____ By whom: _____
Did any strata contain water not suitable for intended use? (explain)
_____
Depth of Strata: _____

ARROW DRILLING 503-538-4422

(9) LOCATION OF WELL by legal description:
County: Mult. Latitude: _____ Longitude: _____
Township: 1S Range: 1E
Section: 09AD NE ¼ SE ¼
Tax Lot: 1600 Lot: _____ Block: _____ Subdivision: _____
Street Address of Well (or nearest address) 3710 SW US Veterans Hospital Road, Portland, Oregon 97239

(10) STATIC WATER LEVEL:
____ Ft. below land surface Date _____
Artesian pressure _____ lb. per sq. in. Date _____

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

From	To	Est. Flow Rate	SWL

(12) WELL LOG: Ground Elevation: _____

Material	From	To	SWL
basalt blk hrd fract	490	493	
basalt blk hrd w/occ fact	493	512	
basalt gray hrd	512	518	
basalt gray/blk hrd fract	518	523	
basalt brwn decomp vesic	523	538	
basalt brwn/gray hrd well fract	538	544	
basalt gray hrd fract	544	549	
basalt brwn/gray bkn some decomp vesic	549	558	
basalt brwn hrd occ fract	558	569	

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SALEM, OREGON

Date Started: 1/21/10 Completed: 2/22/10

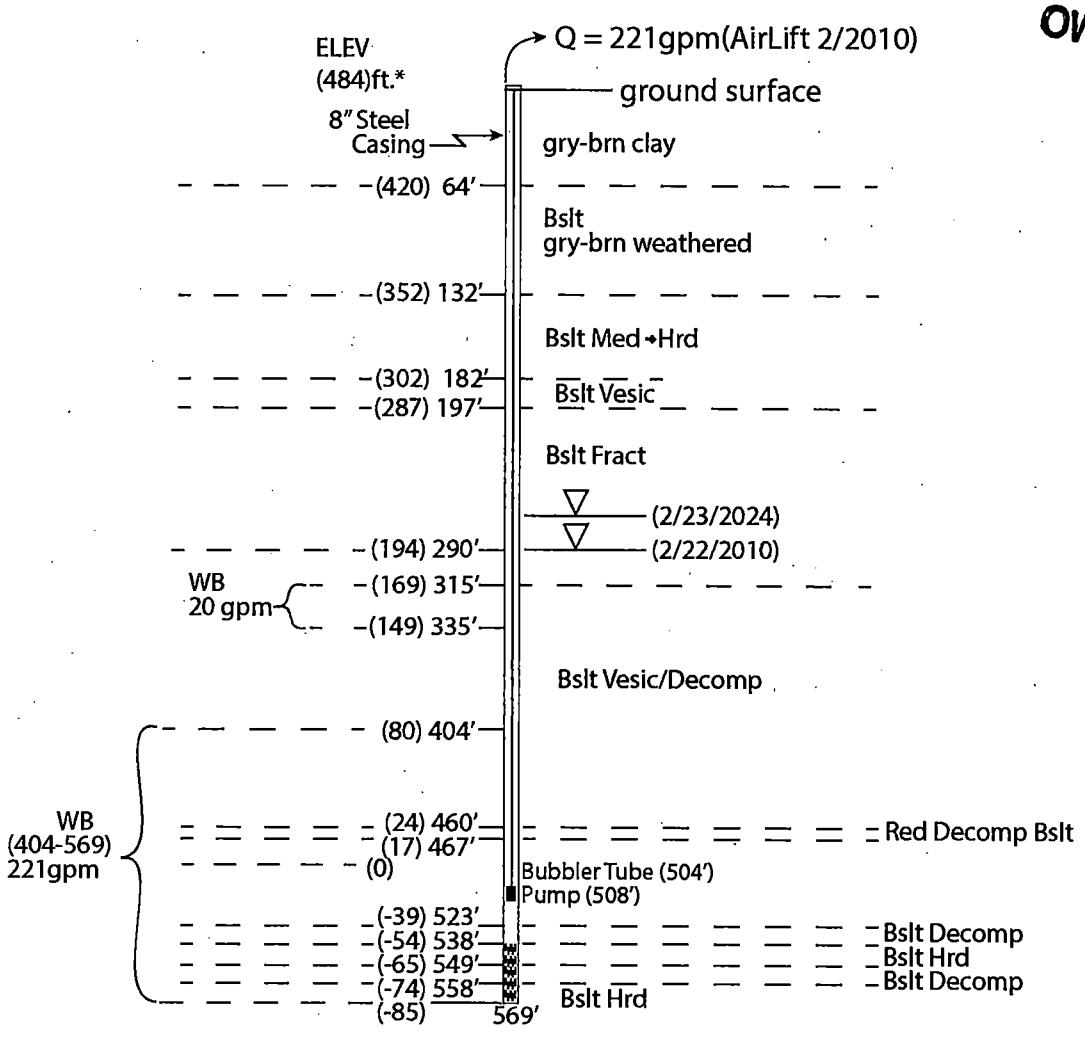
(unbonded) Water Well Constructor Certification:
I certify that the work I performed on the construction, alteration,, or abandonment of this well is in compliance with Oregon water supply well construction standards. Materials used and information reported above are true to the best of my knowledge 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 1483
Signed _____ Date 3/9/10

ORIGINAL - Water Resources Department FIRST COPY - Constructor SECOND COPY - Customer

Attachment 5:

Diagram of Well



LEGEND

▽ Static Water Table (Date)
WB Water Bearing Zone
Vesic Vesicular Basalt
Decomp Decomposing Basalt
Vertical Scale 1"= 120'
*from Google Maps

138' - Depth below ground surface
(420) - Approximate Elevation (MSL)

RNSA, INC.
Groundwater and Environmental Consultants

Project Manager: Smith, R.
Project Number: 24-1217
Date Last Modified: 5/2/2024

Diagram of V.A. Medical Center Well MULT 101972.

Project Address: 3710 S.W. U.S. Veterans' Hospital Road, Portland, Oregon

Figure 1

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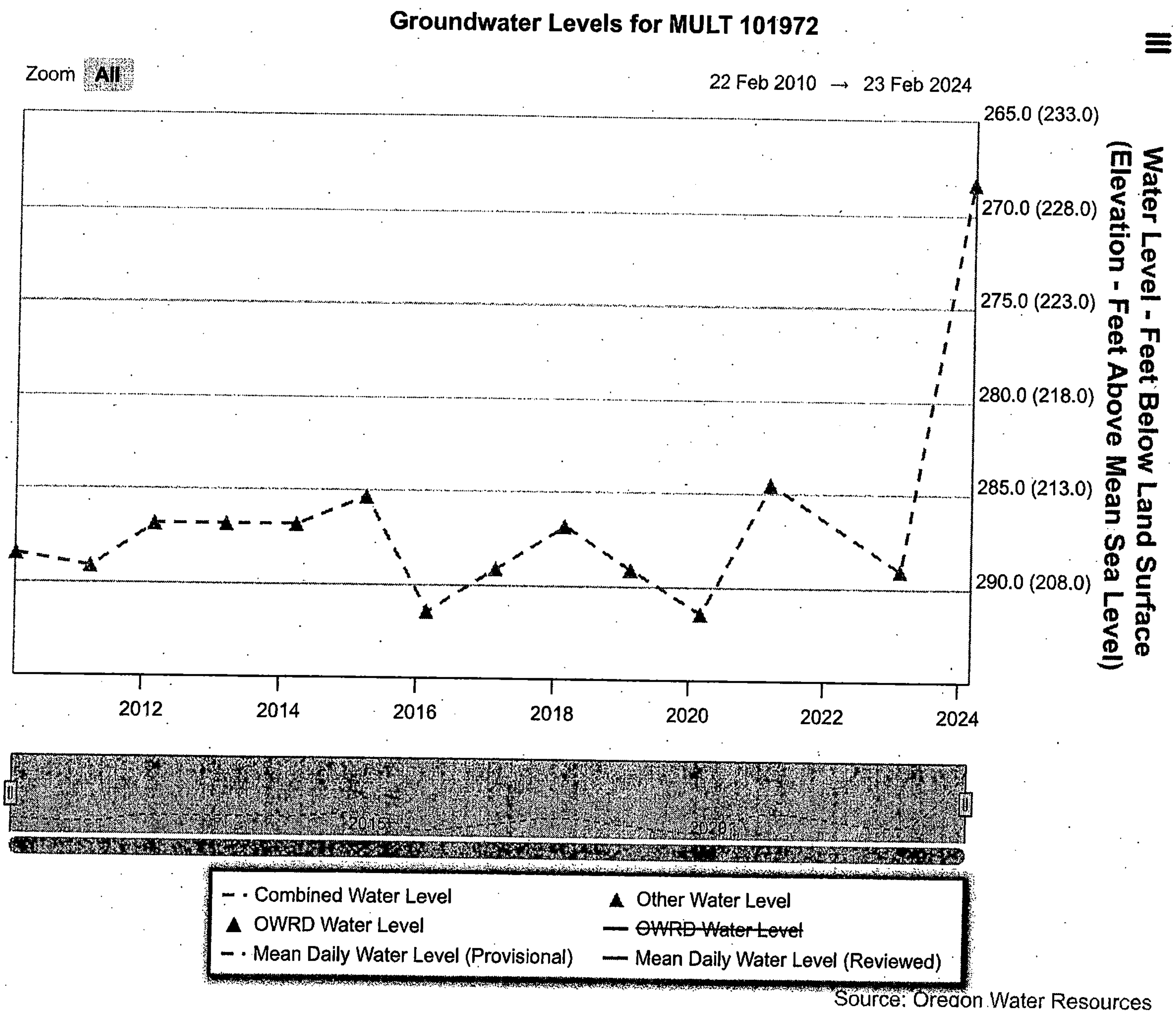
Attachment 6:

Well Hydrograph &

Water Use Reports



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MAY 16 2024
OWRD

Oregon Water Resources Department
OWRD Groundwater Hydrographs

Main Help
Return Contact Us

Search Records

Well Log Id: [ ] [ ] or GW Logid: [MULT0101972] Chart Clear

Well Location:	1.00S/1.00E-9DA-	**Total Depth (bls):**	---	**Water Level Count:**	15
Log ID:	MULT 101972 Well Log	**Land Surface Elevation:**	498 ft	**Wtr Lvl Date Range:**	2/22/2010 - 2/23/2024
Well Tag:	100244	**Vertical Reference Datum:**	NAVD1988	**Wtr Lvl Depth Min-Max:**	268.38 - 291.48 ft
State Observation:		**Primary Use of Well:**	IRRIGATION & COMMERCIAL	**Recorder Wtr Lvl Count:**	0
USGS Site:		**Primary Aquifer System:**		**Recorder Wtr Lvl Date Range:**	---
More Information:	GWIS	Groundwater Mapping Tool		**Recorder Wtr Lvl Depth Min-Max:**	---

Groundwater Levels for MULT 101972

Zoom All

22 Feb 2010 → 23 Feb 2024

Water Level | Daily Water Level | Lithology | Construction

Measured Water Levels for MULT 101972

All Fields Search...

ll	Date	Time	Water Level (BL...	Water Level Elev. (FT AMSL)	Organization	OWRD	Method	Status	Meas. Point Ht.	Reviewed
T0101972	02/23/2024		268.38	229.62	OWNR	PCPR	AIRLINE	STATIC		
T0101972	02/17/2023		289.12	208.88	OWNR	PCPR	AIRLINE	STATIC		
T0101972	03/15/2021		284.55	213.45	OWNR	PCPR	AIRLINE	STATIC		
T0101972	03/02/2020		291.48	206.52	OWNR	PCPR	AIRLINE	STATIC		PLAUSIBLE
T0101972	02/15/2019		289.17	208.83	OWNR	PCPR	AIRLINE	STATIC		PLAUSIBLE
T0101972	02/26/2018		286.86	211.14	OWNR	PCPR	AIRLINE	STATIC		PLAUSIBLE
T0101972	02/21/2017		289.17	208.83	OWNR	PCPR	AIRLINE	STATIC	1.5	PLAUSIBLE
T0101972	02/21/2017		289.17	208.83	OWNR	PCPR	AIRLINE	STATIC	1.5	PLAUSIBLE
T0101972	02/22/2016		291.48	206.52	OWNR	PCPR	AIRLINE	STATIC	1.5	PLAUSIBLE
T0101972	04/02/2015		285.36	212.64	PE	PCPR	AIRLINE	STATIC		PLAUSIBLE
T0101972	03/26/2014		286.86	211.14	PE	PCPR	AIRLINE	STATIC	1.5	PLAUSIBLE
T0101972	03/12/2013		286.86	211.14	PE	PCPR	AIRLINE	STATIC	1.5	PLAUSIBLE
T0101972	03/02/2012		286.86	211.14	PE	PCPR	AIRLINE	STATIC	1.5	PLAUSIBLE
T0101972	03/31/2011		289.17	208.83	PE	PCPR	AIRLINE	STATIC	1.5	PLAUSIBLE
T0101972	02/22/2010		290	208.00	DRLR	WLOG	REPORTED	STATIC		
T0101972	02/22/2010		288.5	209.50	PMPI	PCPR	ETAPE	STATIC		PLAUSIBLE

Search took 0.001 sec

1-16 of 16

Water Use Report Based on Water Right

◉ excel
○ text

Permit: G 16701 *

PORTLAND VA MEDICAL CENTER PO BOX 1034 PORTLAND, OR 97207

Records per page: 13 View All

Acre-feet (AF) of Water Used

Water Year*	Report ID	Facility	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total Water Used	Irrigated Acres
2023	64288	EMERGENCY WATER WELL (MULT 101972/L-100244)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.41	0.53	0.70	0.40	2.21	29.00
2022	64288	EMERGENCY WATER WELL (MULT 101972/L-100244)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.10	0.24	0.06	0.00	0.54	29.00
2021	64288	EMERGENCY WATER WELL (MULT 101972/L-100244)	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.38	0.56	0.51	0.66	0.43	2.64	32.00
2020	64288	EMERGENCY WATER WELL (MULT 101972/L-100244)	0.26	0.00	0.00	0.00	0.00	0.00	0.01	0.07	0.46	0.57	0.43	0.50	2.30	
2019	64288	EMERGENCY WATER WELL (MULT 101972/L-100244)	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.65	0.44	1.05	1.07	0.29	3.71	
2018	64288	EMERGENCY WATER WELL (MULT 101972/L-100244)	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.47	0.53	0.60	0.47	2.26	20.00
2017	64288	EMERGENCY WATER WELL (MULT 101972/L-100244)	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.52	0.55	0.73	0.48	2.65	32.00
2016	64288	EMERGENCY WATER WELL (MULT 101972/L-100244)	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.36	0.51	0.70	0.49	2.18	32.00
2015	64288	EMERGENCY WATER WELL (MULT 101972/L-100244)	0.15	0.00	0.00	0.00	0.00	0.00	0.14	0.35	0.54	0.89	0.75	0.52	3.34	1.97
2014	64288	EMERGENCY WATER WELL (MULT 101972/L-100244)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.08	0.31	0.18	0.01	0.59	1.97

2013	64288	EMERGENCY WATER WELL (MULT 101972/L-100244)	0.31	0.20	0.00	0.00	0.00	0.37	0.31	0.34	0.40	0.47	0.32	0.22	2.95
2012	64288	EMERGENCY WATER WELL (MULT 101972/L-100244)	0.32	0.26	0.00	0.00	0.00	0.39	0.33	0.33	0.38	0.41	0.30	0.23	2.95
2011	64288	EMERGENCY WATER WELL (MULT 101972/L-100244)	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.39	0.41	0.31	0.32	1.43

*The water year is named for the calendar year in which it ends. Example: the 2018 water year begins Oct. 1, 2017 and ends Sep. 30, 2018.

- The Water Resources Department makes reasonable efforts to screen the data for quality control; however, the Department cannot accept responsibility for errors, omissions, or accuracy of the information. Notification of any errors is appreciated. Send notifications to owrd.waterusereporting@water.oregon.gov or call 971-345-7489.
- Water use is reported by point of diversion (POD), rather than by water right.
- If a POD is shared with multiple water rights, it is not feasible to separate out the amount used under the water right being queried from water used by other rights using this same POD.
- Monthly amounts indicate:
  - For diverted rights, the total amount diverted during the month;
  - For storage rights, the amount generally stored in the reservoir/pond during the month, as represented by the volume of water impounded on approximately the same day each month.
- Water use amounts have all been converted to "acre-feet" (AF), regardless of the original measurement unit reported. One AF is the volume of water that will cover an acre of ground one foot deep = 325,850 gallons.
- Zeroes indicate that a report was received stating that no water was used during those months; if a year is not listed, no report of water use was received for that year.

Attachment 7:

Well Tag Photo


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Attachment 8:

Pump Test Document

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Oregon Water Resources Department

PUMP TEST FORM COVER SHEET

Well Owner:
Name: **Portland VA Medical Center**
Address: **3710 SW US Veterans Hospital Road**
County: **Multnomah**
City: **Portland** State: **OR** Zip: _____
Original owner (from well log): _____

Well Location:
Township: _____ S Range: _____ E
Section: **09AD** ¼ : NE ¹/₁₆ NE ¹/₆₄ : NE
Well depth: **569'** Date drilled: **2-22-10**
Owners well no. (if any): **L100244**
POD ID: _____

Water Right Information:
Application: _____ Permit: _____ Certificate: _____
Is this well listed on more than one water right? ☐ Yes If yes, list additional water rights below:
Application: _____ Permit: _____ Certificate: _____
Application: _____ Permit: _____ Certificate: _____

Pump Test:
Test Conducted by: _____ Well Owner? ☐ Yes
Company: **Mather & Sons Pump SVC, Inc.**
Address: **12307 NE 95th St.** Date of Test: **11/15/2010**
City: **Vancouver** State: **WA** Zip: **98682**
Daytime phone: **(360) 256-1310**

Method of discharge measurement (see our brochure for more information): **Flow meter**
Method of water-level measurement (pick one or enter other method used): **Well Sounder**
Length of air line (if used): _____

Pump type (pick one or enter other method used): **20 hp Submersible**
Was the pump test conducted during normal use of the well? ☐ Yes Note: _____

Are you aware of any wells, other than domestic or stock wells, pumping within 1000 feet of the tested well during the test or within 24 hours prior to the test? ☐ Yes Note: _____
If yes, give approximate distances to each and approximate pumping rate of each. If possible, indicate if they were turned on or off during the test: _____

Is there a lake, stream or other surface water body within ¼ mile of the tested well? ☐ Yes If yes, give approximate distance from the well and approximate elevation difference between the surface water and the well head. Approx. distance: _____ ft Approx. elevation difference: _____ ft

Well elevation is **below** surface water body.

Description of measuring point (e.g. top port of 1 inch port pipe, west side) _____

Measuring point distance **below** land surface _____ feet.

Static water level measurements: (A minimum of three measurements are required in the hour before pumping begins at no less than 20 minutes apart):

Time	Depth to water below meas. point	Depth to water below land surface
8:45 am	**290.00**	**288.50**
9:05 am	**290.00**	**288.50**
9:25 am	**290.00**	**288.50**

Discharge measurements: (A discharge measurement is required at the start of pumping and at least once an hour during the test; additional measurements should be noted on the Pump Test Data Sheet):

	Time	Discharge Rate	Discharge Units (e.g. gpm, cfs, etc)
Start	**9:25 am**	**50.00**	**gpm (gallons per minute)**
			gpm (gallons per minute)
			gpm (gallons per minute)
			gpm (gallons per minute)
Finish	**10:30 am**	**120.00**	**gpm (gallons per minute)**

Time pump turned on: Date **11/15/2010** Time **9:45 am**
Time pump turned off: Date **11/16/2010** Time **10:30 am**
Total pumping time: **24** hours **45** minutes

Note: Well must be idle for at least 16 hours prior to the test.
Additional forms can be obtained from our web site at: http://www.wrd.state.or.us OWRD 2/9/2000

Required Signature: _____

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Oregon Water Resources Department

PUMP TEST DATA SHEET

Application: _____ Permit: _____ Certificate: _____ Pod_Id: _____

All water-level measurements must either be in feet and inches, or feet and decimal fractions.

Drawdown Data

Recovery Data

Date	Time	Time Since Pump Started (minutes)	Depth to Water Below Measuring Pt	Depth to Water Below Land Surface	Comments	Date	Time	Time Since Pump Stopped (minutes)	Depth to Water Below Measuring Pt	Depth to Water Below Land Surface	Comments
11/15/10	9:45 AM	0	291' 4"	290'	50 GPM						
11/15/10	9:47 AM	2	302' 4"	301'	50 GPM						
11/15/10	9:49 AM	4	302' 4"	301'	50 GPM						
11/15/10	9:51 AM	6	302' 4"	301'	50 GPM						
11/15/10	10:00 AM	15	302' 4"	301'	75 GPM						
11/15/10	10:05 AM	20	302' 4"	301'	75 GPM						
11/15/10	10:15 AM	30	304' 4"	303'	100 GPM						
11/15/10	10:20 AM	35	304' 4"	303'	100 GPM						
11/15/10	10:25 AM	40	308' 6"	307' 2"	100 GPM						
11/15/10	10:27 AM	42	308' 8.5"	307' 4.5"	100 GPM						
11/15/10	10:30 AM	45	308' 10"	307' 6"	120 GPM						
11/15/10	10:32 AM	47	308' 10.5"	307' 6.5"	120 GPM						
11/15/10	10:34 AM	49	308' 10.75"	307' 6.75"	120 GPM						
11/15/10	10:36 AM	51	308' 11"	307 '7"	120 GPM						
11/15/10	10:38 AM	53	308' 11.75"	307' 7.75"	120 GPM						
11/15/10	10:40 AM	55	309'	307' 8"	120 GPM						
11/15/10	10:45 AM	60	309' 25"	307' 8.25"	120 GPM						
11/15/10	10:50 AM	65	309' .5"	307' 8.5"	120 GPM						
11/15/10	10:55 AM	70	309' .75"	307' 8.75"	120 GPM						
11/15/10	11:00 AM	75	309' 1"	307' 9"	120 GPM						
11/15/10	11:05 AM	80	309' 1.25"	307' 9.25"	120 GPM						
11/15/10	11:10 AM	85	309' 1.50"	307' 9.5	120 GPM						
11/15/10	11:15 AM	90	309' 1.75"	307' 9.75"	120 GPM						
11/15/10	11:30 AM	105	309' 2"	307' 10"	120 GPM						
11/15/10	11:45 AM	120	309' 2.25"	307' 10.25"	120 GPM						
11/15/10	12:00 PM	135	309' 2.50"	307' 10.5"	120 GPM						
11/15/10	12:15 PM	150	309' 2.75"	307' 10.75"	120 GPM						
11/15/10	12:30 PM	165	309' 3"	307' 11"	120 GPM						
11/15/10	12:45 PM	180	309' 3.25"	307' 11.25"	120 GPM						
11/15/10	1:00 PM	195	309' 3.5"	307' 11.5"	120 GPM						
11/15/10	1:15 PM	210	309' 3.75"	307' 11.75"	120 GPM						
11/15/10	1:30 PM	225	309' 3.75"	307' 11.75"	120 GPM						
11/15/10	1:45 PM	240	309' 3.75"	307' 11.75"	120 GPM						
11/15/10	2:00 PM	255	309' 4"	308'	120 GPM						
11/15/10	2:15 PM	270	309' 4"	308'	120 GPM						
11/15/10	2:30 PM	285	309' 4"	308'	120 GPM						
11/15/10	2:45 PM	300	309' 4"	308'	120 GPM						
11/15/10	3:00 PM	315	309' 4"	308'	120 GPM						
11/15/10	3:15 PM	330	309' 4"	308'	120 GPM						
11/15/10	4:15 PM	390	311' 2"	309' 10"	120 GPM						

Additional forms can be obtained from our web site at: http://www.wrd.state.or.us

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PUMP TEST DATA SHEET

Application: _____ Permit: _____ Certificate: _____ Pod_Id: _____

All water-level measurements must either be in feet and inches, or feet and decimal fractions.

Drawdown Data

Date	Time	Time Since Pump Started (minutes)	Depth to Water Below Measuring Pt	Depth to Water Below Land Surface	Comments
11/15/10	5:15 PM	450	311' 2"	309' 10"	120 GPM
11/15/10	6:15 PM	510	311' 3"	309' 11"	120 GPM
11/15/10	7:15 PM	570	311' 4"	310'	120 GPM
11/15/10	8:15 PM	630	311' 4"	310'	120 GPM
11/15/10	9:15 PM	690	311' 4"	310'	120 GPM
11/15/10	10:15 PM	750	311' 4"	310'	120 GPM
11/15/10	11:15 PM	810	311' 4"	310'	120 GPM
11/16/10	12:15 AM	870	311' 4"	310'	120 GPM
11/16/10	1:15 AM	930	311' 4"	310'	120 GPM
11/16/10	2:15 AM	990	311' 6"	310' 2"	120 GPM
11/16/10	3:15 AM	1050	311' 6"	310' 2"	120 GPM
11/16/10	4:15 AM	1110	311' 8"	310' 4"	120 GPM
11/16/10	5:15 AM	1170	311' 8"	310' 4"	120 GPM
11/16/10	6:15 AM	1230	311' 10"	310' 6"	120 GPM
11/16/10	7:15 AM	1290	311' 11"	310' 7"	120 GPM
11/16/10	8:15 AM	1350	312' 1"	310' 9"	120 GPM
11/16/10	9:15 AM	1410	312' 1"	310' 9"	120 GPM
11/16/10	10:15 AM	1470	312' 1"	310' 9"	120 GPM
11/16/10	10:30 AM	1485	312' 1"	310' 9"	120 GPM
11/16/10	10:30 AM				Shut Down

Recovery Data

Date	Time	Time Since Pump Stopped (minutes)	Depth to Water Below Measuring Pt	Depth to Water Below Land Surface	Comments
11/16/10	10:31 AM	1	297' 4"	296'	
11/16/10	10:32 AM	2	296' 4"	295'	
11/16/10	10:33 AM	3	296' 10"	295' 6"	
11/16/10	10:34 AM	4	296' 7"	295' 3"	
11/16/10	10:35 AM	5	296' 4"	295'	
11/16/10	10:36 AM	6	296' 3"	294' 11"	
11/16/10	10:37 AM	7	296' 1"	294" 9"	
11/16/10	10:38 AM	8	296'	294' 8"	
11/16/10	10:39 AM	9	295' 11"	294' 7"	
11/16/10	10:40 AM	10	291' 8.5"	294' 4.5"	
11/16/10	10:41 AM	11	291' 8"	294' 4"	
11/16/10	10:42 AM	12	295' 7.5"	294' 3.5"	
11/16/10	10:43 AM	13	295' 6.5"	294' 2.5"	
11/16/10	10:44 AM	14	295' 6"	294' 2"	
11/16/10	10:45 AM	15	295' 5"	294' 1"	
11/16/10	10:46 AM	16	295' 4"	294'	
11/16/10	10:47 AM	17	295' 3.5"	293' 11.5"	
11/16/10	10:51 AM	21	295' 2"	293' 10"	
11/16/10	10:56 AM	26	294' 11"	293" 7"	
11/16/10	11:01 AM	31	294' 9"	293' 5"	
11/16/10	11:05 AM	35	294' 7"	293' 3"	
11/16/10	11:10 AM	40	294' 6"	293' 2"	
11/16/10	11:15 AM	45	294' 5"	293' 1"	
11/16/10	11:20 AM	50	294' 2.5"	292' 10.5"	
11/16/10	11:25 AM	55	294' 1"	292' 9"	
11/16/10	11:40 AM	70	293' 10"	292' 6"	
11/16/10	11:55 AM	85	293' 7.5"	292' 3.5"	
11/16/10	12:10 PM	100	293' 5.5"	292' 1.5"	
11/16/10	12:25 PM	115	292'	290' 8"	

Additional forms can be obtained from our web site at: http://www.wrd.state.or.us

Attachment 9:

Pump Calculations

Received
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Loc: 3710 SW US Veterans Hospital Road	VA Hospital Emergency Well	April 17, 2024

Submersible Well Pump
Pump Calculations to Irrigation Storage Tank

$$Q_{irrig} = \frac{(\text{horsepower})(\text{pump efficiency})}{\text{TOTAL Head (ft)}}$$

Efficiency factor (75%) = 6.61

Where: $\frac{(550\ \text{ft-lb/sec/HP})(0.75}{62.4\ \text{lb/cu-ft}} = 6.61$

VA Well TOTAL HEAD: STATIC = 290 ft (below ground)
DYNAMIC = 20 ft (from pump test)
TANK Height = 10 ft (ABOVE wellhead)
TOTAL 310 ft

$$\therefore Q_{irrig} = \frac{(20)(6.61)}{310} = 0.427\ \text{cfs} = 191.64\ \text{gpm}$$

Submersible Well

Submersible Well Pump
Pump Calculations To Potable Water Tank

$$Q_{POT} = \frac{(hp)(6.61)}{\text{TOTAL HEAD}}$$

VA WELL TOTAL HEAD: STATIC = 290 ft (bgs)
DYNAMIC = 20 ft (Pump Test)
TANK Ht = 40 ft (POTABLE TANK)
TOTAL 350 ft

$$\therefore Q_{POT} = \frac{(20)(6.61)}{350} = 0.378\ \text{cfs} = 169.5\ \text{gpm}$$

Booster Pump (Estimate)
from Engineering/Mfg Specs

@ TDH = 130 ft (TOTAL DYNAMIC Head)

Q_{BP} = 30 gpm with 5 hp pump

Attachment 10:

Sprinkler Head Summary

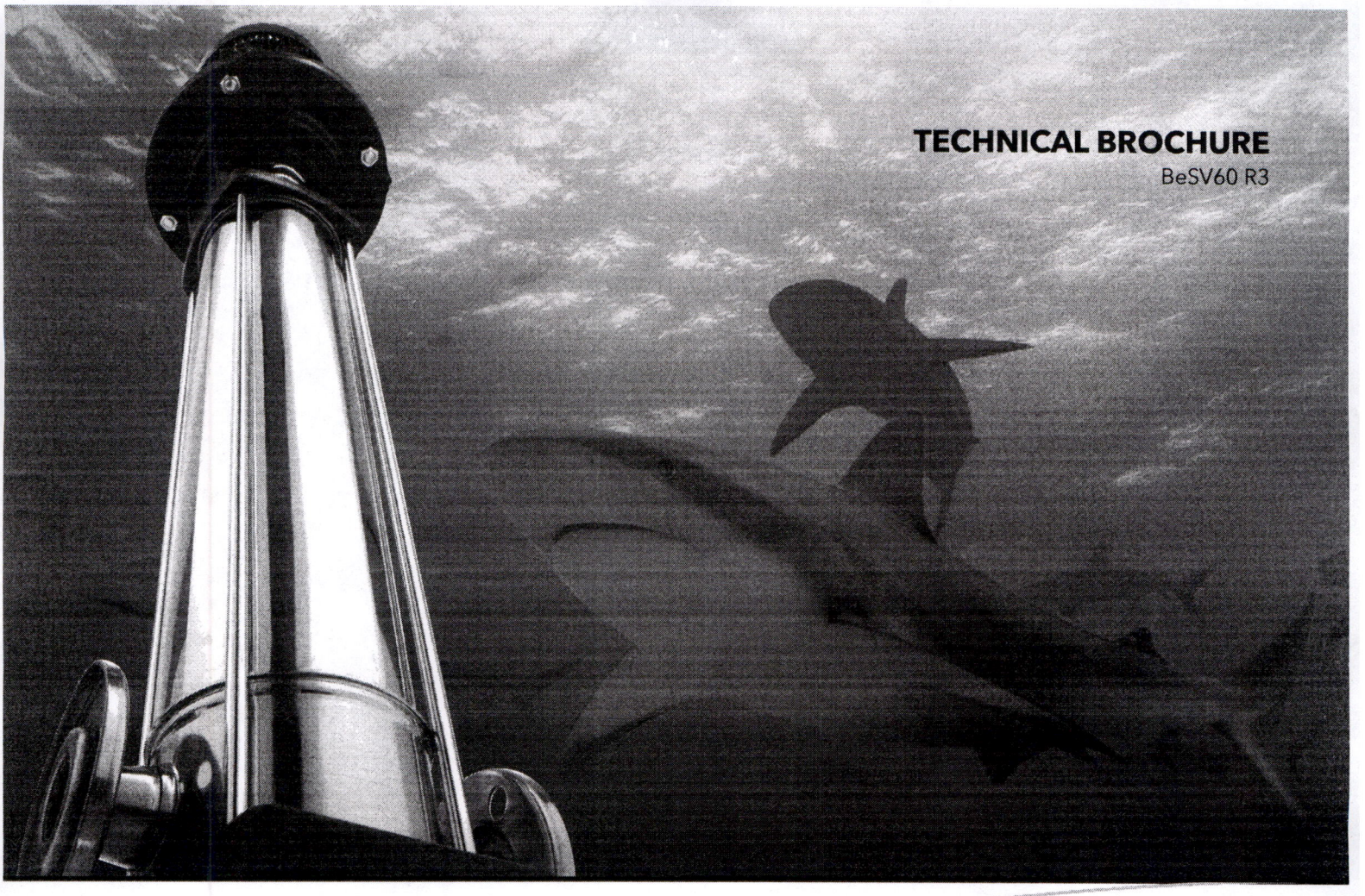
Received
MAY 16 2024
OWRD

SPRINKLER HEAD TABLE for VA CAMPUS

	Spray Head Type																									
Sprinkler Type	1								2		3							4			5	6	7	8	9	
Spray Pattern	Full	½	¼	Full	270°	½	¼	¼	½	¼	Full	270°	½	¼	Full	½	¼	½	112°	¼	360° Bubbler	20°-360° Adjustable	20°-360° Adjustable	20°-360° Adjustable	Side Spray	
GPM	2	1.0	0.5	1.7	1.3	0.9	0.4	1	1.14	0.57	2.88	1.91	1.38	0.7	2	1.7	1	2.77	1.73	1.34	2	3.8	4.2	2.1	1	
PSI	30	30	30	20	20	20	20	-	35	35	35	35	35	35	4	4	4	35	35	35	20	35	35	35	20	
map #																										
W-7	7	84	14	-	-	-	-	-	4	-	5	4	31	-	-	-	-	2	-	1	-	9	7	-	-	
W-8	-	38	15	-	-	-	-	-	19	-	-	-	-	-	-	-	-	2	-	1	-	-	26	-	-	
W-9	-	-	-	-	-	-	-	24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
W-10	-	-	-	-	-	-	-	24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
W-11	-	-	-	-	-	22	33	-	-	-	-	-	-	-	-	-	-	-	-	-	18	-	-	-	41	
W-12	-	-	-	1	5	15	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	41	
W-13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	44	9	-	-	-	-	-	-	-	-	
Total Sprinklers	7	122	29	1	5	37	40	48	23	0	5	4	31	0	3	44	9	4	0	2	18	9	33	0	82	**556**

Attachment 11:

Gould Booster Pump



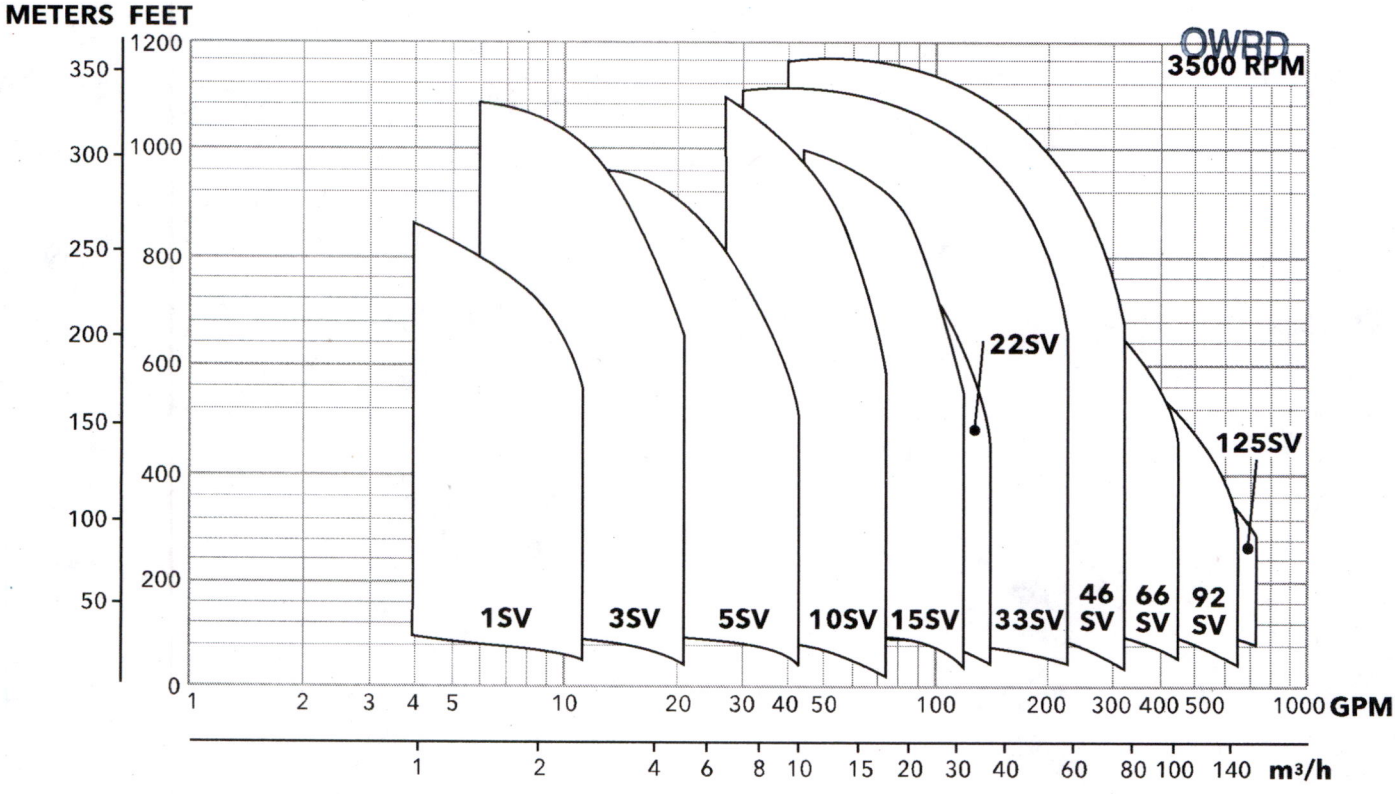
TECHNICAL BROCHURE
BeSV60 R3

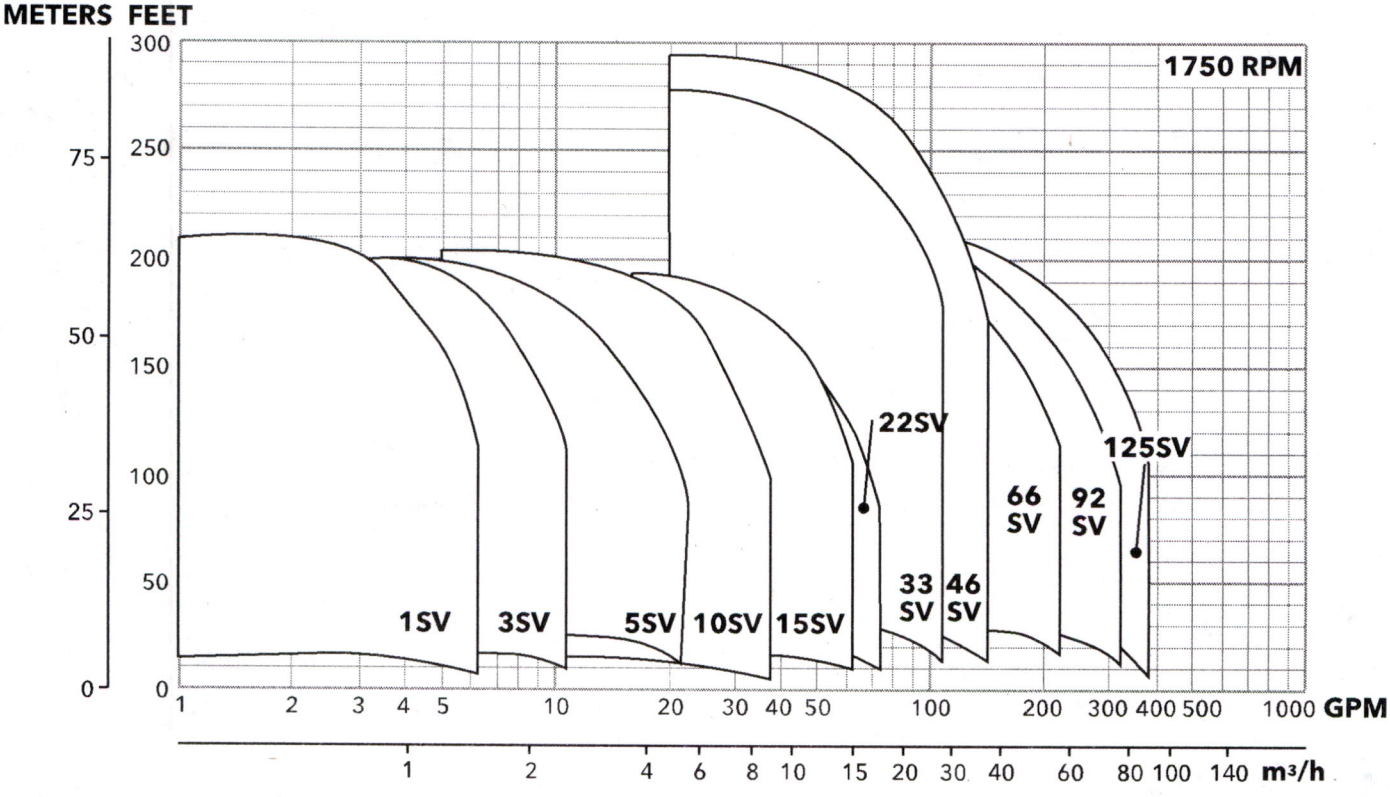
e-SV™ 60 Hz Technical Manual

E-SV SERIES VERTICAL MULTI-STAGE PUMPS

GOULDS
WATER TECHNOLOGY
a xylem brand

e-SV Coverage Curve

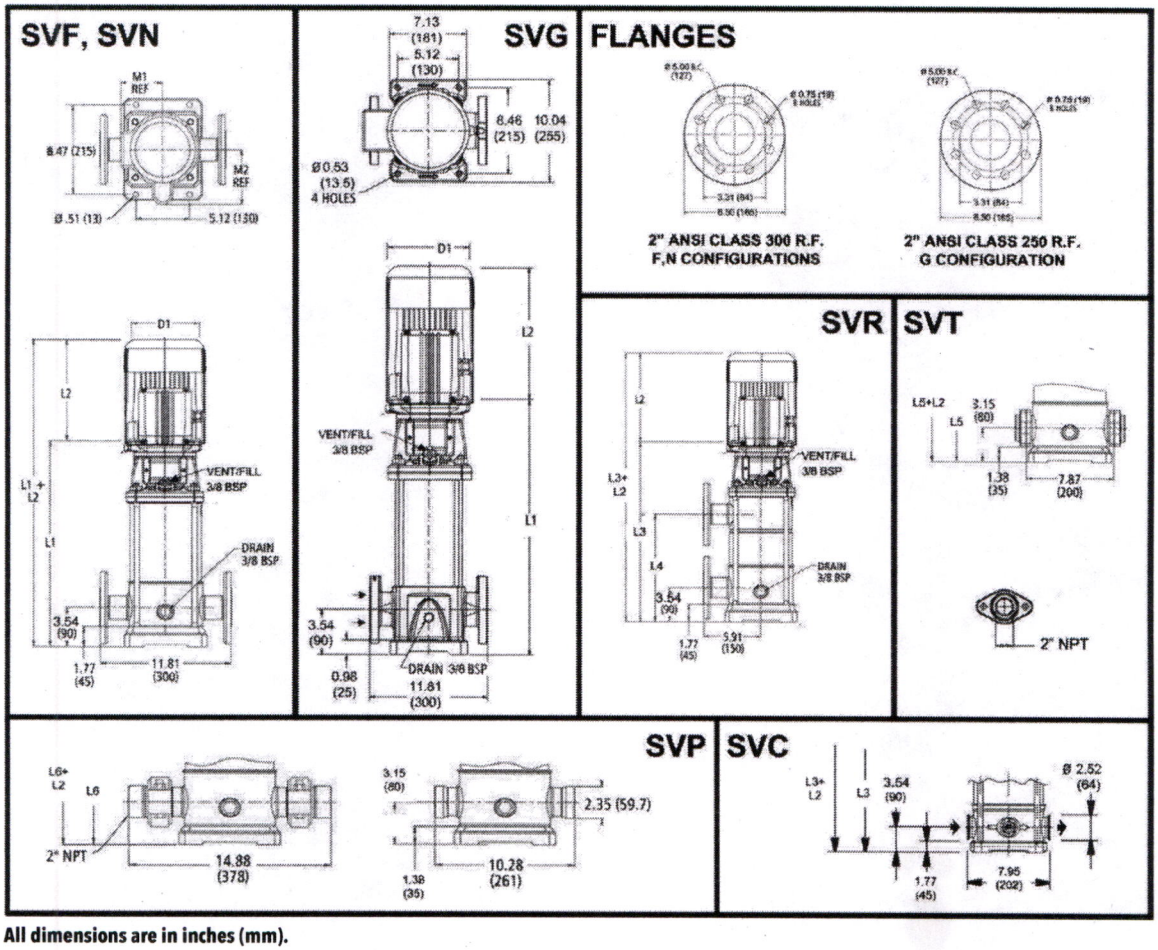




Dimensions and Weights

10SV Series 3500 RPM

60 Hz

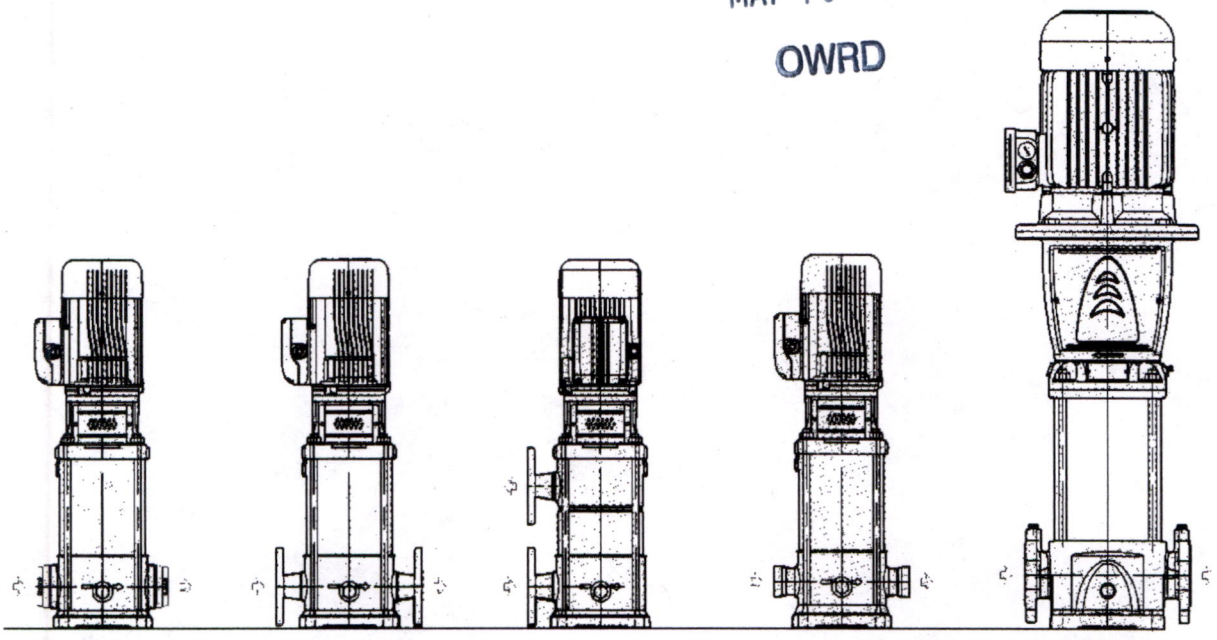


All dimensions are in inches (mm).

10SV SERIES – 60Hz, 3500 RPM ODP/TEFC Enclosures

Pump Type Stages	Motor					Dimensions (in)															Weight (lbs.)							
		NEMA Frame					L2								D1 (max.)							Motor				Pump/Motor			
	HP	ODP 1Ø	TEFC 1Ø	ODP 3Ø	TEFC 3Ø	L1	ODP 1Ø	TEFC 1Ø	ODP 3Ø	TEFC 3Ø	L3	L4	L5	L6	M (Ref.)	ODP 1Ø	TEFC 1Ø	ODP 3Ø	TEFC 3Ø	D2	Pump Only	ODP 1Ø	TEFC 1Ø	ODP 3Ø	TEFC 3Ø	ODP 1Ø	TEFC 1Ø	ODP 3Ø	TEFC 3Ø
10SV-01	0.75	56C				16.56	10.79	9.91	9.16	9.29	-	-	16.17	16.17	5.19	6.19	6.19	6.19	6.19	4.13	36	27	29	21	21	63	65	57	57
10SV-02	2					16.56	11.18	12.06	11.16	10.79	-	-	16.17	16.17	5.74	7.19	7.19	6.19	6.19	4.72	38	43	51	32	33	81	89	70	71
10SV-03	3					17.82	11.57	13.44	11.18	11.16	-	-	17.43	17.43	5.75	6.50	7.19	7.16	7.19	5.51	40	49	64	41	44	89	104	81	84
10SV-04	5	184TC		182TC	184TC	19.58	13.93	15.43	12.55	13.93	-	-	19.19	19.19	6.87	8.88	8.86	9.02	8.86	5.51	46	81	92	62	69	127	138	108	115
10SV-05						20.84	13.93	15.43	12.55	13.93	20.84	10.20	20.45	20.45	6.87	8.88	8.86	9.02	8.86	5.51	48	81	92	62	69	129	140	110	117
10SV-06						22.10	13.93	15.43	12.55	13.93	22.10	11.46	21.71	21.71	6.87	8.88	8.86	9.02	8.86	5.51	50	81	92	62	69	131	142	112	119
10SV-07	7.5	213TC		184TC		23.36	13.88	15.53	13.93	15.43	23.36	12.72	22.97	22.97	8.05	8.89	10.62	8.88	8.86	5.51	52	100	120	75	85	152	172	127	137
10SV-08						24.62	13.88	15.53	13.93	15.43	24.62	13.98	24.22	24.22	8.05	8.89	10.62	8.88	8.86	5.51	54	100	120	75	85	154	174	129	139
10SV-09						25.88	13.88	15.53	13.93	15.43	25.88	15.24	25.48	25.48	8.05	8.89	10.62	8.88	8.86	5.51	56	100	120	75	85	156	176	131	141
10SV-10	10	215TC		213TC	215TC	27.71	16.63	16.68	15.55	15.51	27.71	16.50	-	27.31	8.77	10.62	10.18	10.18	10.28	5.51	66	132	145	107	122	198	211	173	188
10SV-11						28.97	16.63	16.68	15.55	15.51	28.97	17.76	-	28.57	8.77	10.62	10.18	10.18	10.28	5.51	68	132	145	107	122	200	213	175	190
10SV-12						29.44	16.63	16.68	15.55	15.51	29.44	19.02	-	29.05	8.77	10.62	10.18	10.18	10.28	5.51	70	132	145	107	122	202	215	177	192
10SV-13						31.51	16.63	16.68	15.55	15.51	31.51	20.28	-	31.11	8.77	10.62	10.18	10.18	10.28	5.51	75	132	145	107	122	207	220	182	197
10SV-14						32.85	16.63	16.68	15.55	15.51	32.85	21.54	-	32.45	8.77	10.62	10.18	10.18	10.28	5.51	77	132	145	107	122	209	222	184	199
10SV-15	15			215TC	254TC	34.66	-	-	15.55	16.57	-	-	-	34.26	9.22	-	-	10.18	10.28	5.51	84	-	-	125	195	-	-	209	279
10SV-16						35.92	-	-	15.55	16.57	-	-	-	35.52	9.22	-	-	10.18	10.28	5.51	86	-	-	125	195	-	-	211	281
10SV-17						37.18	-	-	15.55	16.57	-	-	-	36.78	9.22	-	-	10.18	10.28	5.51	88	-	-	125	195	-	-	213	283
10SV-18						38.44	-	-	15.55	16.57	-	-	-	38.04	9.22	-	-	10.18	10.28	5.51	90	-	-	125	195	-	-	215	285
10SV-19						39.78	-	-	15.55	16.57	-	-	-	39.38	9.22	-	-	10.18	10.28	5.51	92	-	-	125	195	-	-	217	287
10SV-20	20			254TC	256TC	40.96	-	-	16.66	20.08	-	-	-	40.56	9.5	-	-	10.18	13.13	5.51	94	-	-	144	285	-	-	238	379

General Characteristics - 2-pole



SERIES SVT
1SV, 3SV, 5SV, 10SV, 15SV, 22SV

SERIES SVF, SVN
1SV, 3SV, 5SV, 10SV, 15SV, 22SV

SERIES SVR
1SV, 3SV, 5SV, 10SV, 15SV, 22SV

SERIES SVP
VICTAULIC
1SV, 3SV, 5SV, 10SV, 15SV, 22SV

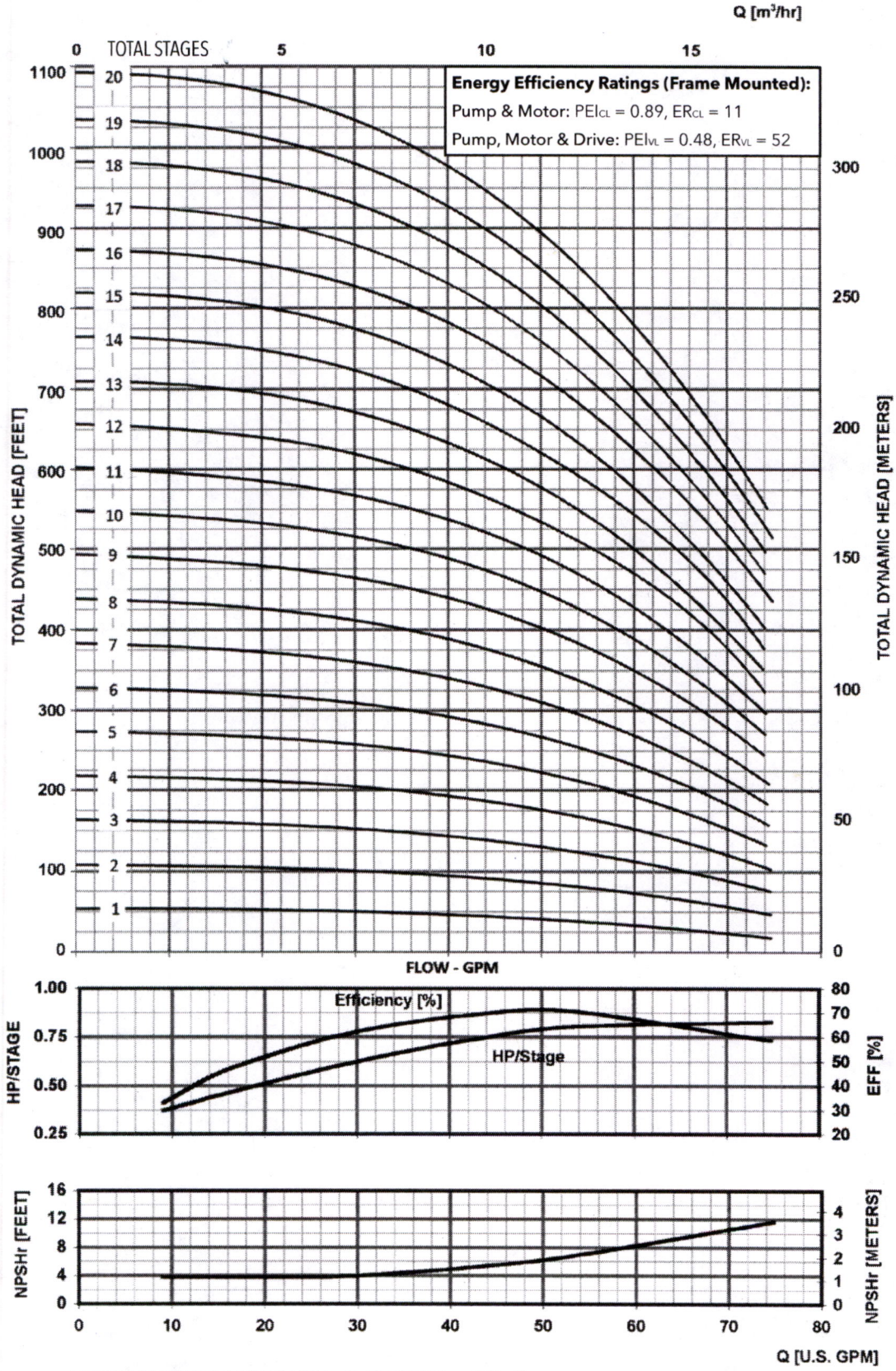
SERIES SVG, SVN
33SV, 46SV, 66SV, 92SV, 125SV

e-SV Product Range	1SV	3SV	5SV	10SV	15SV	22SV	33SV	46SV	66SV	92SV	125SV
Nominal Flow (GPM)	9	15	30	50	80	110	150	220	350	450	600
Flow Range(GPM)	2-12	3-22	7-45	9-75	18-125	21-150	30-195	45-285	70-420	90-580	120-700
Max. Head (Ft)	860	1085	975	1150	1060	880	1125	1210	850	715	570
Max. Working Pressure (PSIG)	580					360/580					
Temperature Range (°F)	Standard -20°F - 250°F (-30°C - 121°C)										
High Temp Option	up to 300°F (150°C)						-				
Motor Power [HP]	½ - 5 HP	½ - 7½	¾ - 10	¾ - 20	2 - 25	3 - 30	3 - 60	7½ - 75	10 - 75	15 - 75	20 - 75
Max Pump Efficiency	51%	60%	70%	70%	70%	71%	76%	78%	78%	80%	79%
Materials of Construction											
SVT	304 SS						-				
SVF	304 SS						-				
SVN	316L SS						Cast Stainless Steel / 316L SS				
SVR	304 SS						-				
SVP	316L SS						-				
SVC	316L SS						-				
SVG	ASTM Class 35/40B Cast Iron / 304 SS										
Connection Sizes											
SVT - Oval NPT	1¼"	1¼"	1¼"	2"	2"	2"	-				
SVF - Round ANSI Size/Class	1¼" 300#	1¼" 300#	1¼" 300#	2" 300#	2" 300#	2" 300#	-				
SVN - Round ANSI Size/Class	1¼" 300#	1¼" 300#	1¼" 300#	2" 300#	2" 300#	2" 300#	2½" 150/300#	3" 150/300#	4" 150/300#	4" 150/300#	5" 150/300#
SVR - Top/Bottom Round ANSI Size/Class	1¼" 300#	1¼" 300#	1¼" 300#	2" 300#	2" 300#	2" 300#	-				
SVP - Victaulic	1¼"	1¼"	1¼"	2"	2"	2"	-				
SVC - Clamp	1½"	1½"	1½"	2"	2"	2"	-				
SVG - Cast Iron Size/Class	1¼" 250#	1¼" 250#	1¼" 250#	2" 250#	2" 250#	2" 250#	2½" 125/250#	3" 125/250#	4" 125/ 250#	4" 125/ 250#	5" 125/250#

Performance Curve

10SV 3500 RPM

60 Hz



MINIMUM FLOW RATE: 9 GPM [2 m³/hr]

e-SV Product Line
Numbering System for 1 - 22SV Liquid End Only

The various versions of the e-SV line are identified by a product code number on the pump label. This number is also the catalog number for the pump. The meaning of each digit in the product code number is shown below.
Note: Not all combinations are possible.

Example Product Code

22 SV 0 2 F E 3 0 _ _

Special Configurations (optional Characters)

A = Cooling Chamber only
B = Cooling Chamber + Passivation
C = Cooling Chamber + Low NPSH
F = Destaged - 1 stage
G = Destaged - 2 stage
H = Horizontal mount only
J = Horizontal mount + Passivation
K = Horizontal mount + Low NPSH
L = Horizontal mount + High Pressure
M = i-Alert (standard for 10 HP units and greater)
N = Low NPSH only
P = Passivation only
Z = High pressure only

Seal Material

0 = Carb-SilCar-Viton (Standard)
1 = Carb-SilCar-AFLAS (HighTemp)
2 = SilCar-SilCar-Viton
4 = SilCar-SilCar-EPR
6 = Carb-SilCar-EPR

Pole-Hz

1 = 2-50
2 = 4-50
3 = 2-60
4 = 4-60

Motor Frame (NEMA)

A = 56C
B = 180TC
C = 210TC
D = 250TC
E = 280TC

Configuration

C = Clamp-316
F = Round-304 (SVB)
G = CI-304
N = Round-316 (SVD)
P = Victaulic-316
T = Oval-304 (SVA)

	Top / Bottom	
R =	(SVC) 12Suct-12Disch	Suction discharge location
W =	(SVC) 12Suct-03Disch	
X =	(SVC) 12Suct-06Disch	
Y =	(SVC) 12Suct-09Disch	

Total Number of Impeller Stages (may be 1 or 2 characters)

Product Line:

SV - Stainless Vertical

Nominal Flow:

1 = 5 GPM
3 = 16 GPM
5 = 26 GPM
10 = 53 GPM
15 = 80 GPM
22 = 116 GPM

Attachment 12:

Variance Approval

RNSA Inc <rnsagroundwater@gmail.com> Apr 23, 2024, 12:15 PM (1 day ago)

to Gerald.E.CLARK

Gerry;

Our company is working on a Claim of Beneficial Use for the V.A. Medical Center's emergency and irrigation well (Permit G-16701). We are seeking a Waiver from supplying calculations for the existing irrigation system as per Section 4 (D. Diversion and Delivery System Information) items 8, 9 and 10 of the Claim of Beneficial Use form. The reasons for this request are as follows:

- There are 556 sprinklers identified in the landscape drawings of the VA campus. Within these, there are 9 sprinkler types with 23 different flow rates (depending on spray coverage) and 4 different line pressures (see attached table).
- There is a 2,200-gallon polyethylene storage tank in the irrigation distribution system that receives water directly from the well. This tank stores water until it is needed. A booster pump connected to the poly tank pressurizes the water and pumps it into the irrigation system at a rate determined by the automated landscaped zones.
- The activation of a sprinkler zone is automatic and can occur at different times and for different lengths of time depending on the type of landscaping (some areas are indoors, on roofs and at the entrance to the hospital in above-ground enclosed containers).
- The calculations of theoretical water use would be very complex and the results would be of questionable value in determining actual use.
- A description of the distribution system had already been included in Section 3 - Claim Description.
- The maximum annual use of water by this irrigation system, since 2010, as reported in the ODWR Water Use Reporting has been 3.71 ac-ft, well below the allowed duty of 4.9 ac-ft.

Roger Smith, RG, CWRE

One attachment • Scanned by Gmail

G

CLARK Gerald E * WRD 2:01 PM (1 hour ago)

to me

Roger,

Your request for a waiver is approved. Please supply the sprinkler table with the Claim as an attachment. In addition, please be sure to supply information about the booster pump including the theoretical calculations to ensure that we have a complete description of the system.

Have a great afternoon.

Gerry

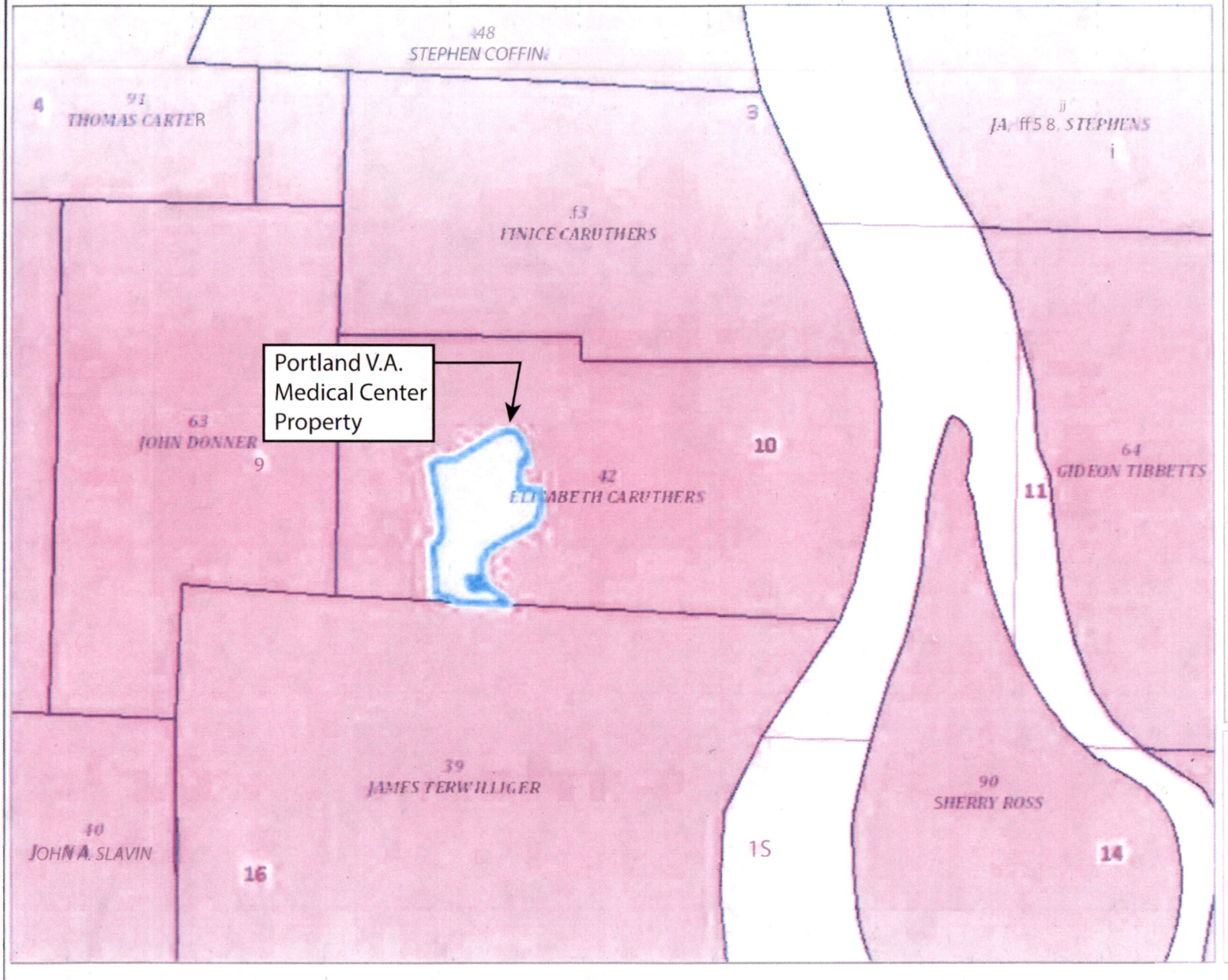
Gerry Clark
He/Him/His
Oregon Water Resources Department
Program Analyst, Certificate Section, Water Right Services Division
725 Summer Street NE, Suite A Salem, OR 97301 | Phone 503-979-9103

Attachment 13:

Elizabeth Caruthers DLC 42

Received
MAY 16 2024
OWRD

Multnomah County, Oregon



Legend

0 DLC
HB3067
0 Township
Section
Taxlots

Received
MAY 16 2024
OWRD

Notes

Received
MAY 1
OWRD

Scale: 1: 18,056
Printed: 4/19/2024

Received
MAY 16 2024
OWRD

RNSA, INC.
Groundwater and Environmental Consultants

May 7, 2024

Oregon Department of Water Resources
725 Summer Street NE, Suite A
Salem, Oregon 97301
ATTN: Claims of Beneficial Use Section
RE: Application: G-17236, Permit: 16701

Claims:

Please find enclosed a completed Claim of Beneficial Use for the VA Medical Center emergency backup well at 3710 SW US Veterans Hospital Road, Portland, OR 97239

Please feel free to contact me if you have questions about the claim.

Sincerely

Roger N. Smith, RG
Geologist/Hydrogeologist, OR, WA
Cert. Water Rights Examiner, OR
Tel: 503-241-5444
E-mail:
RNSAgroundwater@gmail.com

Cc John Carrier, Portland VA Medical Center

1400 SW Davenport St.
Portland, Oregon 97201
TEL (503) 241-5444
RNSAgroundwater@gmail.com