

Groundwater Application Review Summary Form

Application # G- 18588

GW Reviewer Ben Scandella, Dennis Orłowski Date Review Completed: 6/12/18

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).

MEMO



To: Kristopher Byrd, Well Construction and Compliance Section Manager
From: Joel Jeffery, Well Construction Program Coordinator
Subject: Review of Water Right Application G-18588
Date: September 24, 2018

The attached application was forwarded to the Well Construction and Compliance Section by Water Rights. Ben Scandella and Dennis Orłowski reviewed the application. Please see Ben's and Dennis's Groundwater Review and the Well Logs.

Applicant's Well #1 (Tabor Well, MULT 1707): Based on a review of the Well Report, Applicant's Well #1 seems to protect the groundwater resource.

The construction of Applicant's Well #1 may not satisfy hydraulic connection issues.

Applicant's Well #2 (Park Well): There is no well report associated with Well #2, therefore, there is no way to determine if the construction of Applicant's Well #2 meets current minimum well construction standards.

My recommendation is that the Department **not issue** a permit for Applicant's Well #2 (Park Well) unless it is brought into compliance with current minimum well construction standards or information is provided showing that it is in compliance with current minimum well construction standards.

Bringing Applicant's Well #2 (Park Well) into compliance with minimum well construction standards may not satisfy hydraulic connection issues.

Applicant's Well #3 (Howell Field Well, MULT 609): Based on a review of the Well Report, Applicant's Well #3 seems to protect the groundwater resource.

The construction of Applicant's Well #3 may not satisfy hydraulic connection issues.

PUBLIC INTEREST REVIEW FOR GROUNDWATER APPLICATIONS

TO: Water Rights Section Date 6/12/2018
 FROM: Groundwater Section Benjamin Scandella, Dennis Orłowski
 Reviewer's Name
 SUBJECT: Application G- 18588 Supersedes review of _____
 Date of Review(s)

PUBLIC INTEREST PRESUMPTION; GROUNDWATER

OAR 690-310-130 (1) *The Department shall presume that a proposed groundwater use will ensure the preservation of the public welfare, safety and health as described in ORS 537.525.* Department staff review groundwater applications under OAR 690-310-140 to determine whether the presumption is established. OAR 690-310-140 allows the proposed use be modified or conditioned to meet the presumption criteria. **This review is based upon available information and agency policies in place at the time of evaluation.**

A. GENERAL INFORMATION: Applicant's Name: Metro Regional Government. Attn: Laurie Wulf
 County: Multnomah

- A1. Applicant(s) seek(s) 0.514 cfs from 4 well(s) in the Willamette Basin,
Lower Willamette subbasin.
- A2. Proposed use Irrigation (41.2 acres) Seasonality: March 1 through October 31
- 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	MULT 1707	1 (Tabor Well)	Alluvial	0.514	2N/1W-21 NE-SW	2180' N, 2280' E fr SW cor S 21
2	Not Identified	2 (Park Well)	Alluvial	0.514	2N/1W-21 NE-SW	2360' N, 1950' E fr SW cor S 21
3	MULT 609	3 (Howell Field Well)	Alluvial	0.514	2N/1W-21 SE-NW	2800' N, 2260' E fr SW cor S 21
4	Proposed	4	Alluvial	0.514	2N/1W-21 NE-SW	2440' N, 2500' E fr SW cor S 21

* 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	40	Unspecified	40	11/10/1964	86	0-20	0-86	N/A	Open Bottom	18	2	2-hr pump
2	36		26	10/9/2006	88	Unknown	Unknown	Unknown	Unknown			
3	20	64	13	1/24/1992	87	0-68	+1-68	N/A	68-74, 80-86	220	<20	1-hr air
4	34	N/A	N/A	N/A	90	0-20	+2-90	N/A	60-90	N/A	N/A	N/A

Use data from application for proposed wells.

- A4. **Comments:** The applicant's wells are located near the south end of Sauvie Island and on the western side, approximately 2 miles downstream from where the Multnomah Channel diverges from the Willamette River. A well log for Well #2 was neither provided by the applicant nor found in the OWRD well log database matching the information given. The well logs for Wells #1 and #3 show similar geologic material, so for the purpose of this review, Well #2 is assumed to have been drilled through similar geologic material and be open to the sand and gravel layers 60-90' below land surface. The proposed well (#4) should also obtain groundwater from the Unconsolidated Sedimentary Aquifer (USA) (Swanson and others, 1993).
- A5. **Provisions of the** Willamette (OAR 690-502) Basin rules relative to the development, classification and/or management of groundwater hydraulically connected to surface water **are**, or **are not**, activated by this application. (Not all basin rules contain such provisions.)
 Comments The applicant's wells obtain/will obtain groundwater from an unconfined aquifer within 1/4 mile of the Multnomah Channel, and therefore the applicable Basin Rules (OAR 690-502) are activated. The proposed use, irrigation, is classified for the Multnomah Channel (OAR 690-502-0150).
- A6. **Well(s) #** _____, _____, _____, _____, _____, tap(s) an aquifer limited by an administrative restriction.
 Name of administrative area: _____
 Comments: Not applicable

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

B1. **Based upon available data**, I have determined that groundwater* for the proposed use:

- a. is over appropriated, is not over appropriated, or cannot be determined to be over appropriated during any period of the proposed use. * This finding is limited to the groundwater portion of the over-appropriation determination as prescribed in OAR 690-310-130;
- b. will not or will likely be available in the amounts requested without injury to prior water rights. * This finding is limited to the groundwater portion of the injury determination as prescribed in OAR 690-310-130;
- c. will not or will likely to be available within the capacity of the groundwater resource; or
- d. will, if properly conditioned, avoid injury to existing groundwater rights or to the groundwater resource:
 - i. The permit should contain condition #(s) **7n (annual meas.), large water-used reporting**;
 - ii. The permit should be conditioned as indicated in item 2 below.
 - iii. The permit should contain special condition(s) as indicated in item 3 below;

- B2.
- a. **Condition** to allow groundwater production from no deeper than _____ ft. below land surface;
 - b. **Condition** to allow groundwater production from no shallower than _____ ft. below land surface;
 - c. **Condition** to allow groundwater production only from the Alluvial 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:** Wells #1, #2, and #3 obtain groundwater from water-bearing sand and gravel deposits of the Unconsolidated Sedimentary Aquifer (USA), which in this area has a total cumulative thickness of 200-300 feet (Swanson and others, 1993; Conlon and others, 2005). The general coincidence of local groundwater and surface water levels indicates hydraulic connection between the USA and the Columbia River system in this area.

Within approximately 1.5 miles of the proposed POA location there are about 20 wells completed in the alluvial aquifer with mostly irrigation and nursery groundwater rights, as well as a large municipal right, and several more exempt (domestic) wells also in the area. Reported maximum yields in the nearby alluvial wells range up to ~600 gpm, but are more typically on the order of 20-100 gpm.

Groundwater is likely available and not over-appropriated in this area due to the large storage capacity and permeability of the aquifer materials (primarily sand and gravel) and the high rate of recharge (Conlon and others, 2005). Recharge in this unconfined USA system comes from both precipitation and nearby surface water, especially due to the proximity and efficient hydraulic connection to the Multnomah Channel. While groundwater level data for aquifer wells in the area is not available over long periods to definitively determine the current state of the groundwater resource, the nearest well showing long-term data in the sedimentary aquifer system (COLU 3379, more than 10 miles to the north) is also probably hydraulically well-connected with local surface water and shows relative long-term stability for the past 50 years. Despite this conclusion, and because local groundwater data is nearly non-existent, the permit conditions noted in B1(d)(i) are recommended to provide additional information to support future understanding and management of the groundwater resource in this area. If the applicants provide the well log or a well inspection report for Well #2 confirming that it is open to the same aquifer system as the other 3 wells (pending approval from an OWRD hydrogeologist), then due to the high transmissivity of the aquifer system and the close proximity and similar completion of all the wells, it would be sufficient to provide annual water level measurements from any 1 of the 4 wells.

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	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2	Alluvium	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3	Alluvium	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4	Alluvium	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Basis for aquifer confinement evaluation: Well logs for Wells #1 and #3, as well as nearby well logs, show water-bearing sand and gravel deposits overlain by 60-80 of low-permeability silt and clay. Locally, the aquifer tapped by some of these wells might be under semi-confined conditions. However, on Sauvie Island the overlying low-permeability deposits are not laterally extensive (Swanson and others, 1993; Conlon and others, 2005; Gannett and Caldwell, 1998). This characteristic, coupled with the efficient hydraulic connection between the USA and the Columbia River system, suggests the USA is generally unconfined.

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 ¼ 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)	Hydraulically Connected?			Potential for Subst. Interfer. Assumed?	
						YES	NO	ASSUMED	YES	NO
1	1	Multnomah Channel	0-5	5-10	1,100'	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2	1	Multnomah Channel	0-10	5-10	700'	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3	1	Multnomah Channel	5-10	5-10	1,100'	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4	1	Multnomah Channel	0-10	5-10	1,230'	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1	2	Gilbert River	0-5	5-10	1,900'	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2	2	Gilbert River	0-10	5-10	2,200'	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3	2	Gilbert River	5-10	5-10	1,800'	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4	2	Gilbert River	0-10	5-10	1,700'	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Basis for aquifer hydraulic connection evaluation: Groundwater elevations were estimated using static water levels in well logs and land surface elevations for Wells #1 and #3, and ranges of likely elevations were assumed based on those for Wells #2 and #4. The similarity of elevations between groundwater and surface water, combined with the high permeability of Willamette Aquifer materials in this area, suggest that the alluvial aquifer is hydraulically connected to SW #1. Furthermore, hydraulic connection was assumed between all wells and SW #1 because all wells are less than ¼ mile from the SW#1 and in an unconfined aquifer according to rules.

Water Availability Basin the well(s) are located within: None established

C3a. **690-09-040 (4):** Evaluation of stream impacts for each well that has been determined or assumed to be **hydraulically connected and less than 1 mile** from a surface water source. Limit evaluation to instream rights and minimum stream flows that are pertinent to that surface water source, and 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	<input checked="" type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input checked="" type="checkbox"/>
2	1	<input checked="" type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input checked="" type="checkbox"/>
3	1	<input checked="" type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input checked="" type="checkbox"/>
4	1	<input checked="" type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input checked="" type="checkbox"/>
1	2	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
2	2	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
3	2	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
4	2	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>

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?
			<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
			<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
			<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
			<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>

Comments:

C3a: No WAB applies to the location of the applicant's wells, so they were not evaluated for potential for substantial interference beyond noting those closer than 1/4 mile from a surface water source.

C3b: Not applicable because well-specific rates were not specified.

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-Distributed Wells													
Well	SW#	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Well Q as CFS													
Interference CFS													
Distributed Wells													
Well	SW#	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q as CFS													
Interference CFS													
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q as CFS													
Interference CFS													
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q as CFS													
Interference CFS													
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q as CFS													
Interference CFS													
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q as CFS													
Interference CFS													
(A) = Total Interf.													
(B) = 80 % Nat. Q													
(C) = 1 % Nat. Q													
(D) = (A) > (C)		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
(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:

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

C6. **SW / GW Remarks and Conditions:**

References Used:

Application file: G-18592

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.

Iverson, J., 2002, Investigation of the hydraulic, physical, and chemical buffering capacity of Missoula flood deposits for water quality and supply in the Willamette Valley of Oregon: Unpublished M.S. thesis, Oregon State University, 147 p.

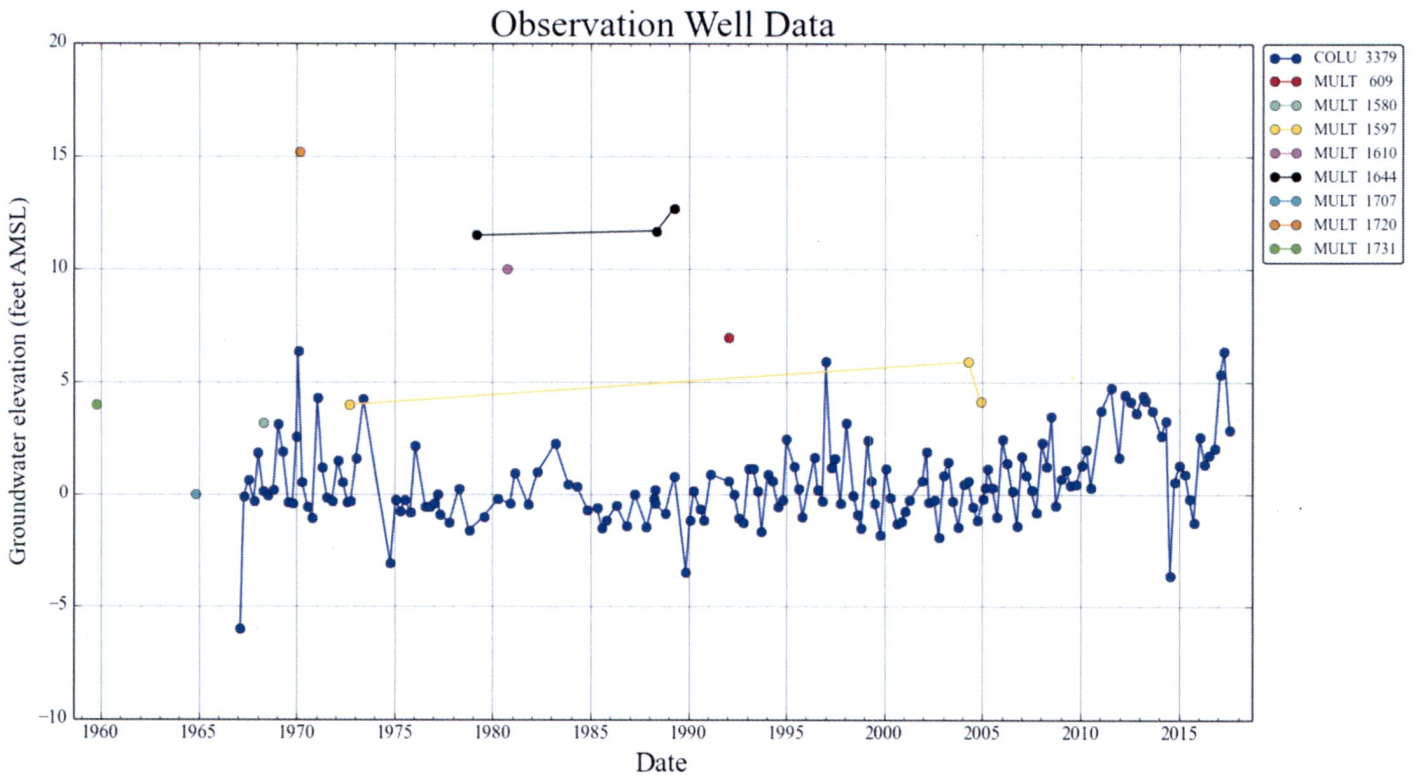
Swanson, R.D., McFarland, W.D., Gonthier, J.B., and Wilkinson, J.M., 1993, A description of hydrogeologic units in the Portland basin, Oregon and Washington: U.S. Geological Survey Water-Resources Investigations Report 90-4196, 56p.

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.

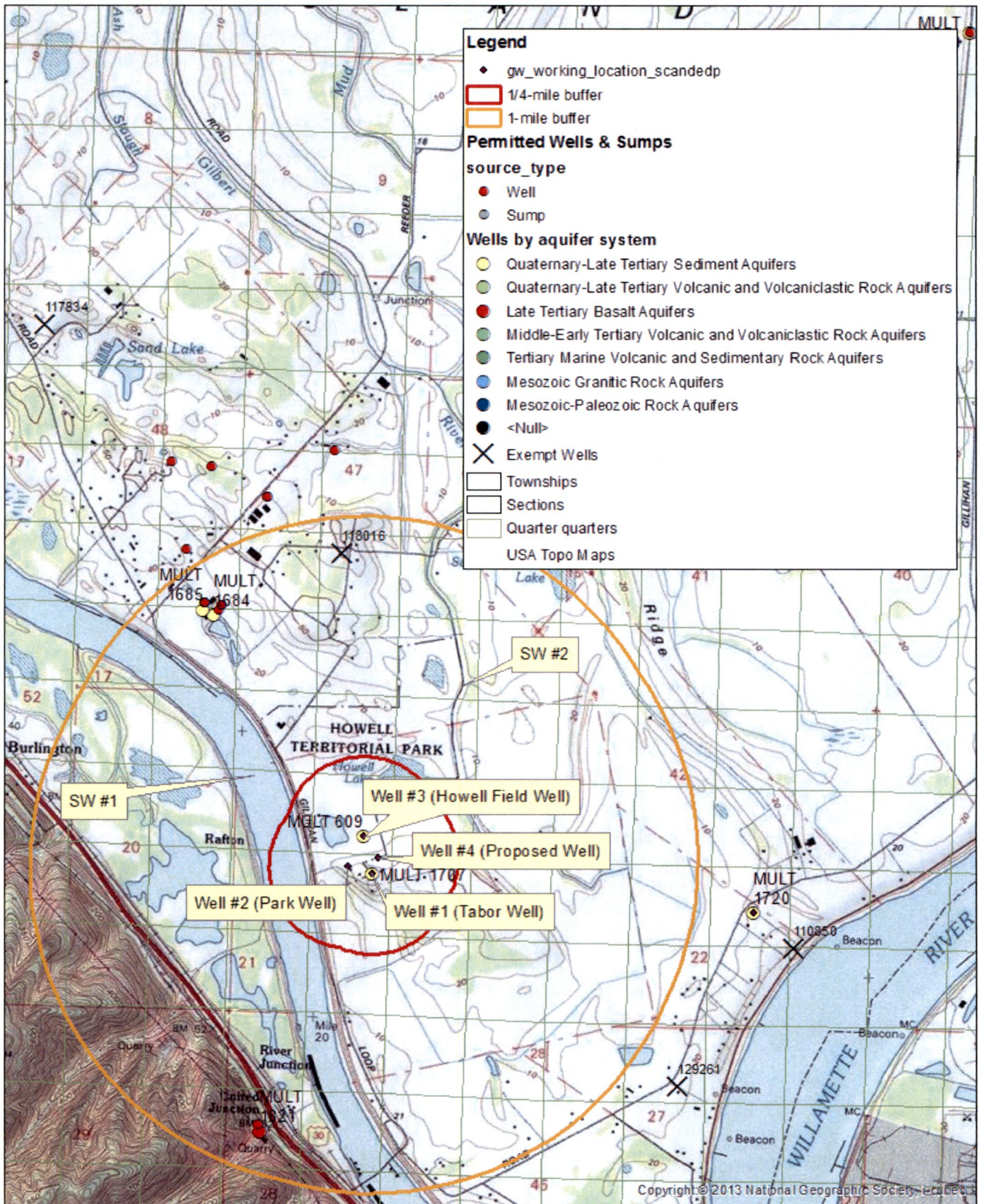
D. WELL CONSTRUCTION, OAR 690-200

- D1. Well #: _____ Logid: _____
- D2. **THE WELL does not appear to meet current well construction standards based upon:**
- a. review of the well log;
 - b. field inspection by _____;
 - c. report of CWRE _____;
 - d. other: (specify) _____
- D3. **THE WELL construction deficiency or other comment is described as follows:** _____
- D4. Route to the Well Construction and Compliance Section for a review of existing well construction.

Water level trends from wells within approximately 2.5 miles of the applicant's well that obtain water from the sedimentary aquifer system, as well as the nearest sedimentary well with a long-term continuing trend (COLU 3379, over 10 miles north).



Well location map, G-18588 (Portland Metro). T2N/R1W - S21





Search Criteria

Meridian: Willamette Township: 2 North Range: 1 West Section: 21 Records per Page: 100

Search

Platcards Maps!
Learn about View!

Water Right	Changing Xfers	Priority	Use	Use Status	DLC	Gov't Lot	qq(40): q(160):	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	Un
Select Permit: R 13987 *		3/29/2004	FISH CULTURE																									
Additional Info: SUE BEILKE App: R85972 Permit: R13987																												
Select Cert: 49880 OR *	T9272, IL286, T9097	4/5/1950	IRRIGATION		46		37	8.2	23.8	34.6				4.8		20.6		24.2	29.7	32.1	33.4	29.7						
Additional Info: SAUVIE ISLAND DRAINAGE DISTRICT App: S24574 Permit: S19464 Cert: 49880																												
Select Cert: 49880 OR *	T9272, IL286, T9097	4/5/1950	IRRIGATION		47		3	7.5			25.4	17																
Additional Info: SAUVIE ISLAND DRAINAGE DISTRICT App: S24574 Permit: S19464 Cert: 49880																												
Select App: G 18588 *		12/7/2017	IRRIGATION						9.5	0.5	6.5			16.5	2.6													
Additional Info: METRO REGIONAL GOVERNMENT App: G18588																												
Select App: S 71651 WD		6/3/1991	MUNICIPAL USES	WD																								
Additional Info: TUALATIN VALLEY WATER DISTRICT App: S71651																												
Select Permit: G 10455 *		8/17/1984	MUNICIPAL USES																									
Additional Info: MARK FILSINGER App: G11306 Permit: G10455																												
Select App: LL 1082 EX		7/9/2007	MUNICIPAL USES	EX																								
Additional Info: MARK FILSINGER App: LL1082																												
Select Permit: G 8755 *		11/12/1976	MUNICIPAL USES																									
Additional Info: CITY OF PORTLAND App: G7578 Permit: G8755																												
Select Cert: 89115 OR *		3/25/1983	MUNICIPAL USES																									
Additional Info: MARK FILSINGER App: G10906 Permit: G10124 Cert: 89115																												
Select Permit: G 10124 *		3/25/1983	MUNICIPAL USES																									
Additional Info: MARK FILSINGER App: G10906 Permit: G10124																												
Select Cert: 89117 OR *		3/1/1985	MUNICIPAL USES (Suppl'mtl)																									
Additional Info: MARK FILSINGER App: G11354 Permit: G10479 Cert: 89117																												
Select Permit: G 10479 *		3/1/1985	MUNICIPAL USES																									
Additional Info: MARK FILSINGER App: G11354 Permit: G10479																												
Select Permit: R 13987 *		3/29/2004	WILDLIFE																									
Additional Info: SUE BEILKE																												

Conflict

Conflict

-8.1

-4.6

9.5
2

28.5

April 1.4

App: R85972
Permit: R13987

Acreage Legend:	12.25 Regular acreage	12.25 Acreage is on a canceled right	(12.25) Acreage is part of a transfer and has not been proven up on yet (inchoate)	[12.25] Acreage has been suspended	* Acreage is not specified
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Search

Search:

Application:

Permit:

Certificate:

Claim:

Transfer:

Snap ID:

POD:

Source:

Irr. District:

(Draw box on map.)

Points of Diversion: (Count: 0)

Places of Use: (Count: 1)



- Identify Non-Water Right Features
- Tax Lots
- Layers
- Tools

POD POU Irrigation Districts AOI

Search...

#	ID (select)	WRIS	Zoom	Water Right	Water Type	First Name	Last Name	Company	Use Desc.	Priority Date	Supp.	Application	Permit	Certificat
1	51646	(Details)	Map	WR	Cert:49880 OR * IR	SW		SAUVIE ISLAND DR...	IRRIGATION	04/05/1950	-	S 24574	S 19464	49880



Search

Search: Water Right by File

Application: [] []

Permit: [] []

Certificate: [] []

Claim: [] []

Transfer: [] []

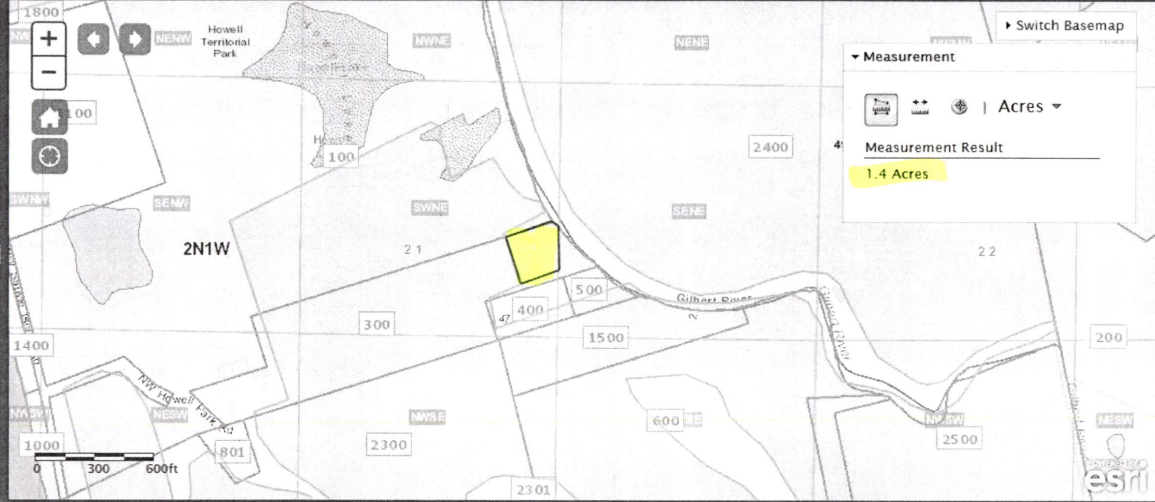
Snap ID: []

POD: Equal []

Source: []

Irr. District: []

(Draw box on map.)



- Identify Non-Water Right Features
- Tax Lots
- Layers
- Tools

POD POU Irrigation Districts AOI

All Fields Search...

ID (select)	WRIS	Zoom	Water Right	Water Type	First Name	Last Name	Company	Use Desc.	Priority Date	Supp. Application	Permit	Certificate	Tr
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Search took 0 sec

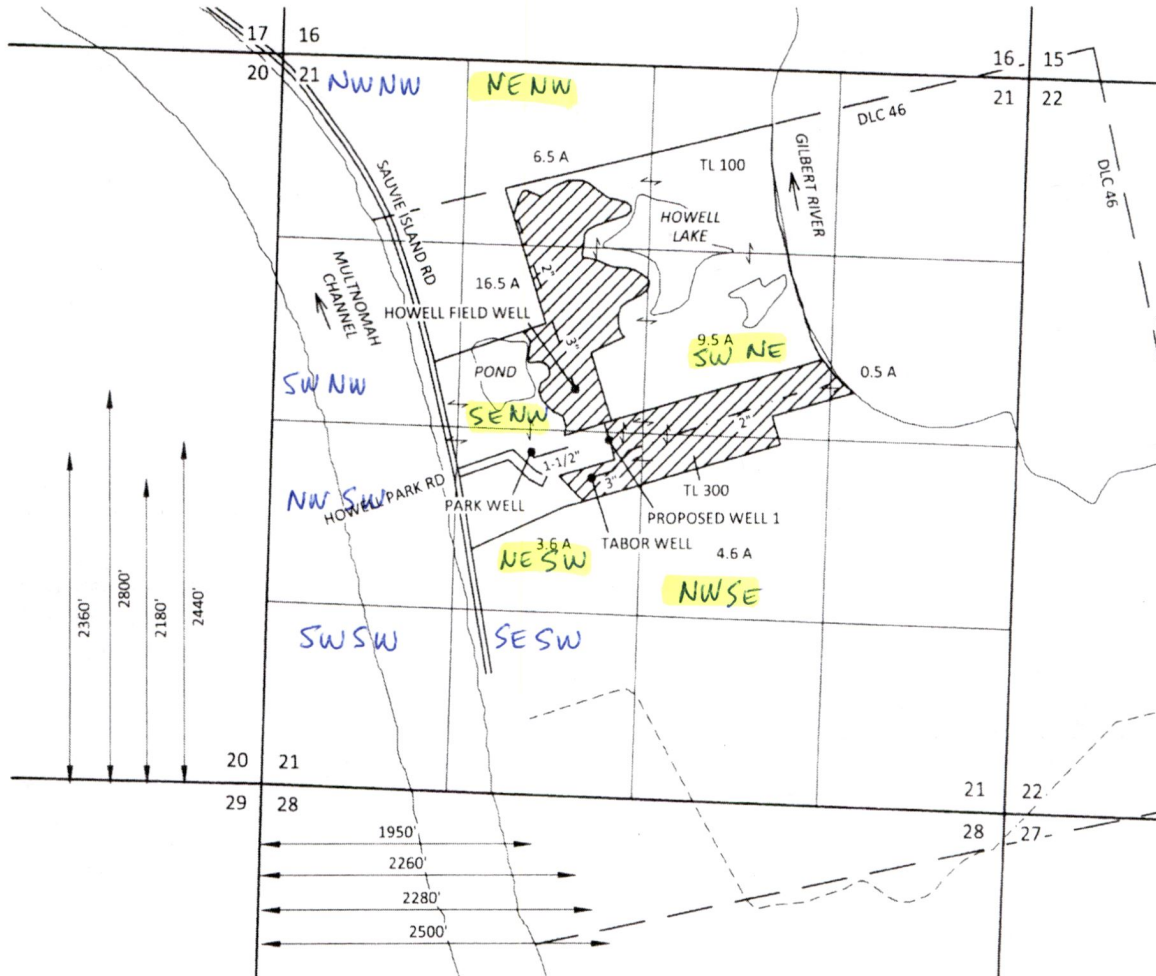
Section 21, T2N, R1W, W.M.,
Multnomah County, Oregon

RECEIVED BY OWRD

DEC 07 2017




GROUNDWATER APPLICATION MAP
Metro Regional Government

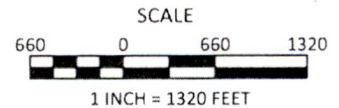
SALEM, OR



Note: There are primary irrigation rights on Tax Lot 300 held by the Sauvie Island Drainage Improvement District under Certificate 49880. The District has agreed to diminish these rights to supplemental irrigation if a permit is issued (see application documents).

EXPLANATION

-  PROPOSED PLACE OF USE
41.2 ACRES
-  WELL
-  PIPE



November 7, 2017

This map is not intended to provide legal dimensions or locations of property ownership lines

Figure 1

SKOOKUM
WATER ASSOCIATES INC

1626 VICTORIAN WAY
EUGENE, OR 97401
(503) 319-8926

G-19588

FINAL PROOF SURVEY

UNDER

APPLICATION NO. 24574 PERMIT NO. 19464

SAUVIE ISLAND DRAINAGE DISTRICT

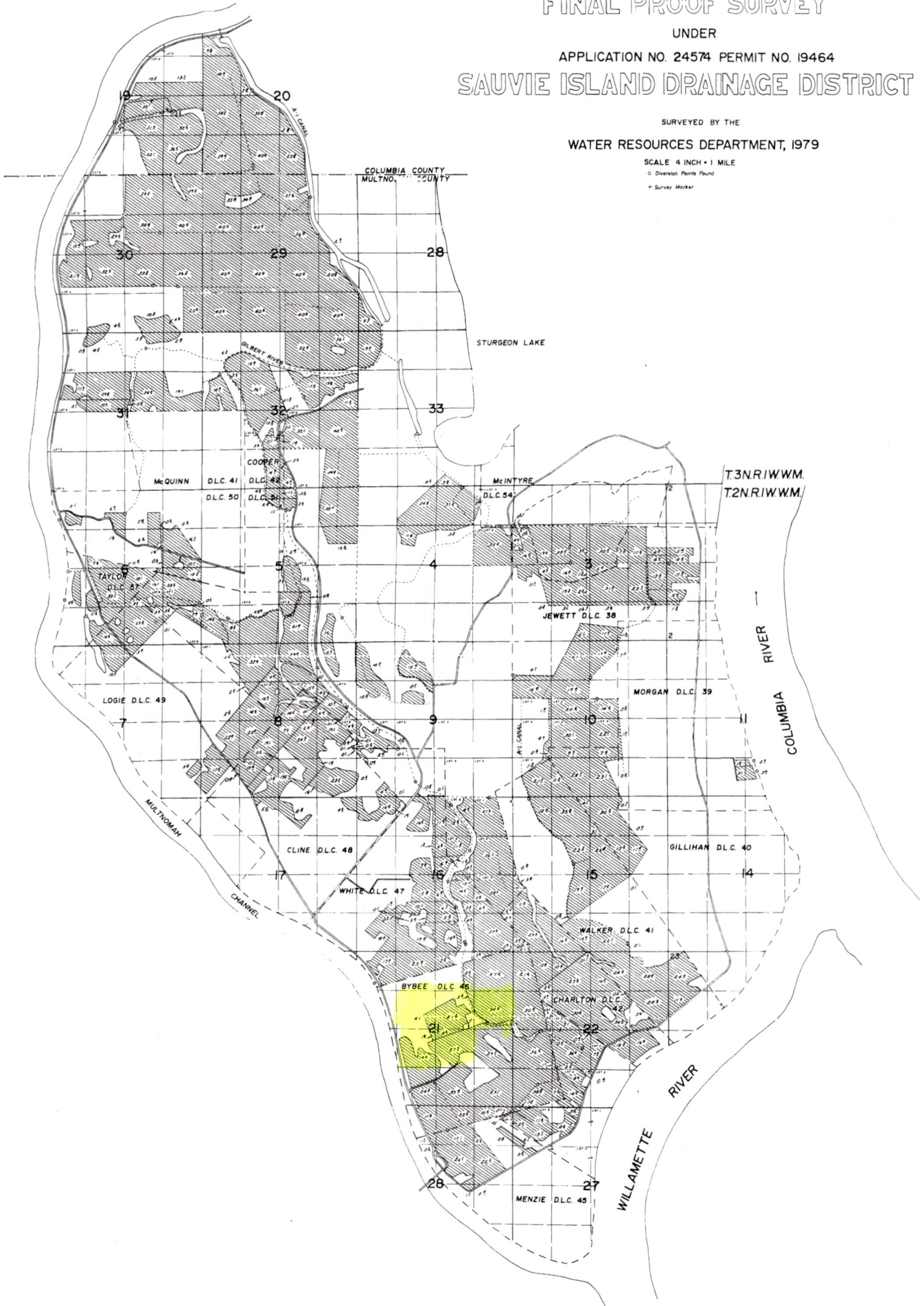
SURVEYED BY THE

WATER RESOURCES DEPARTMENT, 1979

SCALE 4 INCH = 1 MILE

○ Diversion Points Found

+ Survey Marker



MULT

RECEIVED

FEB 1 1965

WATER WELL REPORT 001707

2N/1W-21N

NOTICE TO WATER WELL CONTRACTOR

The original and first copy of this report are to be filed with the STATE ENGINEER, SALEM 10, OREGON within 30 days from the date of well completion.

STATE OF OREGON (Please type or print)

State Well No.

State Permit No.

(1) OWNER:

Name: ROGER TABOR
Address: HOWELL ROAD PARK EXTENSION RT. 1 PORTLAND 31, OREGON

(2) LOCATION OF WELL:

County MULTNOMAH Driller's well number 198
Sec 1/4 SW 1/4 Section 21 T. 2N R. 1W W.M.
Bearing and distance from section or subdivision corner

Sauvies Island

(3) TYPE OF WORK (check):

Well [X] Deepening [] Reconditioning [] Abandon []
Abandonment, describe material and procedure in Item 12.

(4) PROPOSED USE (check):

Domestic [X] Industrial [] Municipal []
Irrigation [] Test Well [] Other []

(5) TYPE OF WELL:

Rotary [] Driven []
Cable [X] Jetted []
Dug [] Bored []

(6) CASING INSTALLED:

Threaded [] Welded [X]
6" Diam. from 0 ft. to 86 ft. Gage 250"

(7) PERFORATIONS:

Perforated? [] Yes [X] No
Type of perforator used
Size of perforations in. by in.

(8) SCREENS:

Well screen installed? [] Yes [X] No
Manufacturer's Name
Model No.
Slot size Set from ft. to ft.
Diam. Slot size Set from ft. to ft.

(9) CONSTRUCTION:

Well seal—Material used in seal CEMENT
Depth of seal 20 ft. Was a packer used? NO
Diameter of well bore to bottom of seal 10 in.
Were any loose strata cemented off? [] Yes [X] No Depth
Was a drive shoe used? [X] Yes [] No
Was well gravel packed? [] Yes [X] No Size of gravel:
Gravel placed from ft. to ft.
Did any strata contain unusable water? [] Yes [X] No
Type of water? Depth of strata
Method of sealing strata off

(10) WATER LEVELS:

Static level 40 ft. below land surface Date 11/10/64
Artesian pressure lbs. per square inch Date

(11) WELL TESTS:

Drawdown is amount water level is lowered below static level
Was a pump test made? [X] Yes [] No If yes, by whom? DRILLER
Yield: 18 gal./min. with 2 ft. drawdown after 2 hrs.
Bailer test 40 gal./min. with 5 ft. drawdown after 1 hrs.
Artesian flow g.p.m. Date
Temperature of water 56 Was a chemical analysis made? [] Yes [X] No

(12) WELL LOG:

Diameter of well below casing
Depth drilled 86 ft. Depth of completed well 86 ft.
Formation: Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.

Table with columns MATERIAL, FROM, TO. Rows include TOP SOIL, SANDY BROWN CLAY, BLACK SAND, water gravel.

Work started 11/6 1964 Completed 11/10 1964
Date well drilling machine moved off of well 11/10 1964

(13) PUMP:

Manufacturer's Name RAPIDAYTON
Type: SUBMERSIBLE H.P. 1/2

Water Well Contractor's Certification:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME AMERICAN WELL DRILLING CO. (Person, firm or corporation) (Type or print)

Address 143 S.E. 95th PORTLAND, ORE

Drilling Machine Operator's License No. 329

[Signed] W.M. Cometto (Water Well Contractor)

Contractor's License No. 375 Date 11/19, 1964

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

mult
609

JAN 29 1992

2N/1W/216d

(START CARD) # 38514

(1) OWNER: Well Number _____
Name MULTNOMAH COUNTY OREGON
Address 1620 SE 190TH
City PORTLAND State OR Zip 97233

(2) TYPE OF WORK:
 New Well Deepen Recondition Abandon

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

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

(5) BORE HOLE CONSTRUCTION:
Special Construction approval Yes No Depth of Completed Well 87 ft.
Explosives used Yes No Type _____ Amount _____

HOLE			SEAL			Amount sacks or pounds
Diameter	From	To	Material	From	To	
12 1/4	0	68	8-Mesh Bent drill gel	0	25	16 sks
			cement	40	68	10 sks
8	68	87				

How was seal placed: Method A B C D E
 Other poured into dry annulus

Backfill placed from _____ ft. to _____ ft. Material _____
Gravel placed from _____ ft. to _____ ft. Size of gravel _____

(6) CASING/LINER:

Diameter	From	To	Gauge	Steel	Plastic	Welded	Threaded
Casing: 8	+1	68	.250	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Liner: 6	57	68	.250	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6	74	80	.250	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6	86	87	.250	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

(7) PERFORATIONS/SCREENS:
 Perforations Method _____
 Screens Type Wire-wound Material Stainless

From	To	Slot size	Number	Diameter	Tele/pipe size	Casing	Liner
68	74	.060		6	pipe	<input type="checkbox"/>	<input checked="" type="checkbox"/>
80	86	.060		6	pipe	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

Yield gal/min	Drawdown	Drill stem at	Time
220		20'	1 hr.

Temperature of Water 56 °F Depth Artesian Flow Found _____
Was a water analysis done? Yes By whom _____
Did any strata contain water not suitable for intended use? Too little
 Salty Muddy Odor Colored Other _____
Depth of strata: _____

(9) LOCATION OF WELL by legal description:
County MULTNOMAH Latitude _____ Longitude _____
Township 2N N or S. Range 1W E or W. WM.
Section 21 SE 1/4 NW 1/4
Tax Lot 12 Lot _____ Block _____ Subdivision _____
Street Address of Well (or nearest address) Bybee Howell
Territorial Park, Mult. Cty, Portland, OR

(10) STATIC WATER LEVEL:
13 ft. below land surface. Date 01/24/92
Artesian pressure _____ lb. per square inch. Date _____

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

From	To	Estimated Flow Rate	SWL
68	72	220 gpm	13
80	87	" "	" "

(12) WELL LOG:
Ground elevation _____

Material	From	To	SWL
Topsoil	0	1	
Brown silty/sandy clay	1	23	
Fine muddy brown sand	23	64	
Fine to med coarse gravel	64	74	
Cemented gravel	74	80	
Fine to med gravel	80	87	

Date started 01/15/92 Completed 01/24/92

(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 well construction standards. Materials used and information reported above are true to my best knowledge and belief.

Signed _____ Date _____
WWC Number _____

(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 well construction standards. This report is true to the best of my knowledge and belief.

Signed [Signature] Date 01/27/92
WWC Number 1266