Health, Housing
& Human Services
CLACKAMAS COUNTY

Dawn Emerick, Director
Public Health Division

February 15, 2018

Robert Smethers
Riverbend-Riverbank Community, PWS #41-00458
461 Hebb Park Rd.
West Linn, OR 97068

Dear Mr. Smethers:

Thanks to Don Smethers for his time and assistance in conducting a **Water System Survey at Riverbend-Riverbank Community on December 11, 2017**. The main purpose of the survey is to evaluate the entire water system in terms of supplying safe drinking water to the public. I have enclosed a copy of the report for your records. Please let me know if any corrections need to be made.

Water system facilities were found to be well operated and maintained by knowledgeable and competent staff. No significant deficiencies or rule violations were identified. Please note the following comments and/or recommendations:

1. The Drinking Water Program has established criteria for determining whether a system should be considered to have "outstanding performance." Systems that are designated outstanding performers may have their water system survey frequency reduced from every 3 years to every 5 years. Congratulations, your water system met the established criteria. Therefore, your next water system survey will be scheduled in 5 years. I have enclosed a certificate along with a handout that describes the outstanding performance criteria such that you can assure your system continues to meet these criteria.

2. A summary of your monitoring requirements can be found on page 1. Please maintain a copy of this page and refer to it for future monitoring scheduling.

If you have any questions or concerns, or would like this in an alternate format, please contact me at (503) 742-5367. You can also contact me at 503-742-5367 or by email at joelfer@co.clackamas.or.us . Your cooperation is appreciated.

Sincerely,

Joel Ferguson, REHS
Clackamas County Environmental Health

encl: Outstanding Performer Criteria and Certificate

cc: OHA Drinking Water Program

1-/15

Deficiency Summary

Surveyor: Joel Ferguson, R.E.H.S.

Date Corrective Action Plan is due: n/a **County:** Clackamas

Yes	No	Significant Deficiencies and Rule Violations:	Date to be corrected	Date corrected
☐	☒	**Source:**		
		Well construction:		
		Spring/other source:		
☐	☒	**Treatment:**		
		Surface water treatment:		
		Disinfection:		
		Other treatment:		
☐	☒	**Finished Water Storage:**		
☐	☒	**Distribution:**		
☐	☒	**Monitoring:**		
☐	☒	**Management & Operations:**		
☐	☒	**Operator Certification:**		
☐	☐	**Other Rule Violations:**		

Comments:

Health Authority

Water System Survey
OHA Drinking Water Services

Survey Date: 12/11/17

2/15

Inventory and Narrative

☐ **Outstanding Performer**

Type:	Community (C)	**Status**	**Size**	**Season:**	Year-round
License:	Not Licensed	Population:	225	Begins: (mm/dd)	/
Responsible Agency:	County	Connections:	81	Ends: (mm/dd)	/
Service Characteristics:	Residential: Rural (RA)				
Ownership:	2 - Private				
Operator Certification Requirements:	WD: Choose an item.	WT: Choose an item.	FE ☐ Small WS ☒		

Primary Administrative Contact (Mailing Address):			
Contact Name:	Robert Smethers	Phone:	(971) 207-5147
Title:	Operator	Cell:	( )
Street Address:	461 Hebb Park Rd.	Emergency #:	( )
City/State/Zip:	West Linn, Oregon 97068	Email:	
Legal/Owner Address:			
Contact Name:	Riverbend-Riverbank Community	Phone:	( )
Title:		Cell:	( )
Street Address:	P.O. Box 1872	Emergency #:	( )
City/State/Zip:	Lake Oswego, Oregon 97035	Email:	
System Physical Address:			
Contact Name:		Phone:	( )
Title:		Cell:	( )
Street Address:	455 Hebb Park Rd.	Emergency #:	( )
City/State/Zip:	West Linn, Oregon 97068	Email:	

Emergency Systems Available:				
Name:	None	**PWS ID#:**	41	

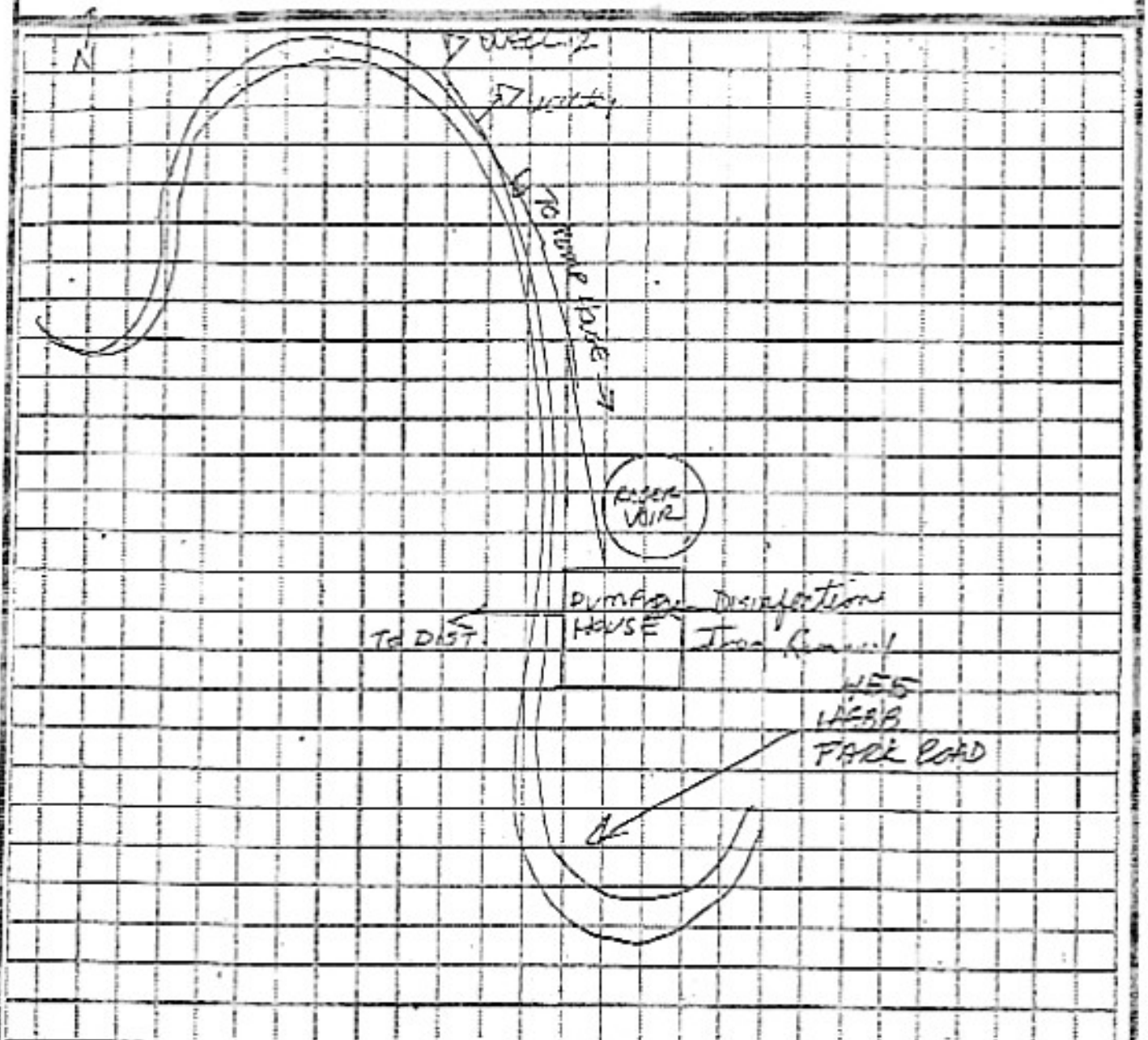
Narrative:

This community water system serves a rural neighborhood off of Pete's Mountain Rd. near the Willamette River & Hebb Park. It consists of 2 pitless adapter wells, 3 pressure tanks, 75K res. & 2-5hp variable drive pumps. The system chlorinates for residual maintenance & injects poly phosphate for iron removal.

Schematic Drawing

OHD Drinking Water Program Sanitary Survey

System: RIVERBEND-RIVERBANK COMMUNITY PWS ID: 41 00458



Include:

- ☐ All Sources (show entry point configuration)
- ☐ All Reservoirs (show inlet/outlet configuration and baffling)
- ☐ Points of Treatment & Disinfection
- ☐ Distribution
- ☐ Interties With Other Systems
- ☐ Other Pertinent Information

SS3A699

Please send updated pump House Diagram when completed

Health Authority

Water System Survey
OHA Drinking Water Services

Survey Date: 12/11/17

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Source Information

ID	Entry Points (Location where water enters distribution and is sampled)	Source Type	Availability (if seasonal, indicate begin/end dates)	Begin (M/D)		End (M/D)	
A	Ep for Well # 1 & # 2	Ground	Emergency				

ID	Sources (Contributing to Entry Point)	Land Use*	Capacity (GPM)	Source Type	Availability
AA	Well # 1 (clac9528)	H	105	Ground	Permanent
AB	Well # 2 (L41302)	H	105	Ground	Permanent

*Land Use Codes: (A) Pristine Forest (B) Irrigated Crops (C) Non-Irrigated Crops (D) Pasture (E) Light Industry (F) Heavy Industry (G) Urban-Sewered Area (H) Rural On-Site Sewage Disposal (I) Urban On-Site Sewage Disposal (J) Rangeland (K) Managed Forest (L) Commercial (M) Recreational Use

Yes	No	
☒	☐	Has the water system implemented strategies (e.g., posting source area signs, notifying residents of Haz Waste collection events, provide residents information about maintaining their septic systems, abandoning unused wells, etc.) to protect their drinking water sources?
☐	☐	Is the water system interested in protecting their drinking water sources from contamination? If yes, contact regional geologist at 541-726-2587.

Comments:

Health Authority

Water System Survey
OHA Drinking Water Services

Survey Date: **12/11/17**

5/15

Well Information

Source ID#: SRC-	AA	BA				
Source Name:	Well # 1	Well # 2				
Well log available?*	Yes	Yes	Choose an item.	Choose an item.	Choose an item.	Choose an item.
Well log ID (e.g., COLU123, L12345)	Clac9528	L41302				
	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No
Well active?	☒ / ☐	☒ / ☐	☐ / ☐	☐ / ☐	☐ / ☐	☐ / ☐
Pitless adaptor?	☒ / ☐	☒ / ☐	☐ / ☐	☐ / ☐	☐ / ☐	☐ / ☐
• Sanitary seal & casing watertight?	☒ / ☐	☒ / ☐	☐ / ☐	☐ / ☐	☐ / ☐	☐ / ☐
• Raw water sample tap?	☒ / ☐	☒ / ☐	☐ / ☐	☐ / ☐	☐ / ☐	☐ / ☐
• Treated water sample tap? ☐N/A	☒ / ☐	☒ / ☐	☐ / ☐	☐ / ☐	☐ / ☐	☐ / ☐
• If vented, properly screened?	☒ / ☐	☒ / ☐	☐ / ☐	☐ / ☐	☐ / ☐	☐ / ☐
• Wellhead protected from flooding?	☒ / ☐	☒ / ☐	☐ / ☐	☐ / ☐	☐ / ☐	☐ / ☐
Concrete slab around casing?	☐ / ☒	☐ / ☒	☐ / ☐	☐ / ☐	☐ / ☐	☐ / ☐
Casing height ≥12-in. above slab/grade?	☒ / ☐	☒ / ☐	☐ / ☐	☐ / ☐	☐ / ☐	☐ / ☐
Flowmeter?	☒ / ☐	☒ / ☐	☐ / ☐	☐ / ☐	☐ / ☐	☐ / ☐
Pressure gauge?	☒ / ☐	☒ / ☐	☐ / ☐	☐ / ☐	☐ / ☐	☐ / ☐
Pump to waste piping?	☒ / ☐	☒ / ☐	☐ / ☐	☐ / ☐	☐ / ☐	☐ / ☐
• Well meets setbacks from hazards?	☒ / ☐	☒ / ☐	☐ / ☐	☐ / ☐	☐ / ☐	☐ / ☐
If no, identify list of hazard(s) within the setback and the distance to the hazard. HAZARD: DISTANCE (ft):						
Protective housing?	☒ / ☐	☒ / ☐	☐ / ☐	☐ / ☐	☐ / ☐	☐ / ☐
If yes, does it have:						
Heat?	☐ / ☒	☐ / ☒	☐ / ☐	☐ / ☐	☐ / ☐	☐ / ☐
Light?	☐ / ☒	☐ / ☒	☐ / ☐	☐ / ☐	☐ / ☐	☐ / ☐
Floor drain?	☐ / ☒	☐ / ☒	☐ / ☐	☐ / ☐	☐ / ☐	☐ / ☐
Well pump removal provision?	☒ / ☐	☒ / ☐	☐ / ☐	☐ / ☐	☐ / ☐	☐ / ☐
Pump Type:	Submersible	Submersible	Choose an item.	Choose an item.	Choose an item.	Choose an item.
Bearing lubrication:	Water	Water	Choose an item.	Choose an item.	Choose an item.	Choose an item.
Pumping capacity (gpm):	105	105				

*If no well log available, record any known information regarding depth of well, depth of grout seal, year of installation, or casing diameter in the comments section below.

Comments:

6/15

Potential Sanitary Hazards
(From OAR 333-061-0050(2)(a)(E))

The following sanitary hazards are not allowed within 100 feet of a well or spring:

- Any existing or proposed pit privy
- Subsurface sewage disposal drain field
- Cesspool
- Solid Waste disposal site
- Pressure sewer line
- Buried fuel storage tank
- Animal yard, feedlot, or animal waste storage
- Untreated storm water or gray water disposal
- Chemical (including solvent, pesticides, and fertilizers)storage, usage, or application)
- Fuel transfer or storage
- Mineral resource extraction
- Vehicle or machinery maintenance or long term storage
- Junk / auto / scrap yard
- Cemetery
- Unapproved well
- Well that has not been properly abandoned or of unknown or suspect construction
- Source of pathogenic organisms
- Any other similar public health hazards

The following are not allowed within 50 feet of a well or spring:

- Gravity sewer line
- Septic Tank

Exemptions to these setbacks must be listed and documented within the plan approval letter and in an approved construction waiver standard.

If a surface water source is located within 500 feet of a well or spring, please note the water body name and the distance to the well or spring. All groundwater sources within 500 feet to a surface water source should be considered for potential surface water influence. Check the file for correspondence. If a review has been done indicate results in comment section. If not, contact the Springfield office 541-726-2587.

7/15

Disinfection

No #	Disinfection Method*	Location	Disinfection Source Water	Residual Maintenance	Other Purpose	Proportional to Flow	Dosage Recorded
1	Sodium Hypochlorite	Prior to storage	☐	☒		☒	☒
			☐	☐		☐	☐
			☐	☐		☐	☐

Yes No Chlorine residuals ☐ N/A

- ☒ ☐ • Is a DPD or other EPA approved method used?
- ☒ ☐ • NSF 60/61 certified (or equivalent)?
- ☐ ☐ • Are entry point residuals recorded at least once per day (SWTR, GWR 4-log)? ☒N/A
- ☐ ☐ • Is entry point residual monitoring continuous if population > 3,300? ☒N/A
- ☒ ☐ • Are distribution residuals recorded at least twice weekly?
- ☐ ☐ Are on-line chlorine analyzers verified weekly with DPD type or EPA approved test kit? ☒N/A

Yes No Chlorine gas ☒ N/A

- ☐ ☐ Separate room for gas storage and feeder?
- ☐ ☐ Fan with on/off switch outside?
- ☐ ☐ Vent located next to the floor?
- ☐ ☐ Door with a window?

Yes No

- ☐ ☐ Gas cylinders properly secured?
- ☐ ☐ Door that opens out?
- ☐ ☐ Self-contained breathing apparatus?
- ☐ ☐ Air scrubber system?

Yes No UV ☒ N/A

- ☐ ☐ • Does all water contact UV (no bypass)?
- ☐ ☐ • Is lamp sleeve cleaned?
- ☐ ☐ • Is lamp replaced per manufacturer?
- ☐ ☐ • Intensity sensor with alarm or shut-off?

Yes No CT Evaluation for disinfection ☒ N/A

- ☐ ☐ • Is contact time based on a tracer study or adequate alternative? ☐ N/A

  Describe adequate alternative method for contact time: _____
- ☐ ☐ • Is there a flow meter on effluent side of clearwell /contact chamber or adequate alternative?

  Describe adequate alternative method for flow rate: _____

  Tracer study demand flow (gpm): _____
- ☐ ☐ Have tracer study parameters changed?
- ☐ ☐ • (SW only) Are pH, temp, and chlorine residual measured daily before or at the first user?
- ☐ ☐ • Are CT values being calculated correctly?
- ☐ ☐ • Are CT values met at all times (SWTR, GWR 4-log)?

Comments:

8/15

Treatment

Code / Purpose / Process Used*	Chemical Added**	Location in System
F680 | Iron Removal | Sequestration	Poly phosphate	Pump room

*See "Treatment Plant Inspection" page for details on filtration. **See "Disinfection" page for details on disinfection equipment.

Yes	No		
☐	☒	Has treatment changed?	
☐	☒	Is lab equipment for on-site analysis appropriate?	
☒	☐	Is equipment maintained properly?	
☒	☐	Is redundant equipment available?	
☒	☐	• Are chemicals NSF Standard 60 certified or equivalent?	(☐N/A – no chemicals are used)
☐	☒	Does system practice corrosion control?	
☐	☐	• Is corrosion control operated within parameters set by DWS?	☒N/A

Describe method of corrosion control (if applicable)

Records Kept:

Yes	No		Yes	No	
☒	☐	Dosages	☒	☐	Flowrate
☐	☒	Raw pH	☐	☒	Treated pH
☐	☒	Raw temperature	☐	☒	Treated temperature
☐	☒	Raw turbidity and/or particle counts	☐	☒	Treated turbidity

Comments:

9/15

Storage and Pressure Tanks

Number	Name	Tank Type*	Tank Material	Year Built	Volume (gal.)
1	Storage tank	(G) Ground	Concrete	1970's	75K
2-4	Hydro pneumatic	(P) Pressure	Steel	'09	119

Total Volume: 75357

Reservoir Number:	1									
Reservoir Features	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
Fence/gate?	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
• Hatch secured (e.g. locked, bolted, etc)?	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
• All tank access points watertight?	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
• Screened vent?	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
Overflow?	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
• Overflow protected (screen/flap/valve)?	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
Drain to daylight?	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
Water level gauge?	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
Bypass piping?	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
Alarm for high or low levels?	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
Separate inlet/outlet?	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
Approved interior coating?	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
Exterior in good condition?	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
Annual interior/exterior inspection?	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
Cleaning schedule?	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
Continuously disinfected? (• post '81 redwood)	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
Pressure Tanks	1-3									
Accessible for maintenance?	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
Bypass piping?	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
Drain?	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
Pressure relief device?	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
Air bladder/diaphragm?	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
Valve for adding air?	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐

Comments

10/15

Distribution System Information

Service Area and Facility Map

Yes	No	
☒	☐	Does the system have a service area and facility map (indicate features on map):

- ☒ Water lines (including size and material)
- ☒ Treatment facilities
- ☒ Storage facilities (reservoirs)
- ☐ Sampling points
- ☒ Sources-wells & withdrawal points
- ☐ Pressure zones
- ☐ Pressure regulating valves
- ☒ Booster pumps

Distribution Data

Yes	No		Comments
☒	☐	• System pressure ≥ 20 psi?	60psi
☐	☒	Water system leakage <10%?	
☒	☐	Hydrants or blowoffs on all dead ends? ☐ N/A	blow offs @ dead ends
☒	☐	Routine flushing? (How often)	monthly
☒	☐	Adequate valving?	
☒	☐	Routine valve turning? (How often)	annual
☐	☒	Does the distribution system have asbestos cement (AC) pipe?	

If yes, verify asbestos sampling is completed on Water Quality Monitoring Page (CWS, NTNC).

Cross Connection Control (CWS, NTNC, and TNC)

Yes	No	N/A		Comments
☒	☐	☐	• Devices tested annually? (CWS, NTNC, TNC)	39
☒	☐	☐	• Ordinance or enabling authority? (CWS)	
☒	☐	☐	• Annual Summary Report submitted? (CWS)	
☐	☐	☒	• Certified Cross Connection Control Specialist? (CWS > 300 connections)	

Comments:

Water Quality Monitoring

Contaminant	N/A	Frequency	Next Tests Due
Entry Point Sampling:			
Nitrate	☐	Annual	2018
Arsenic	☐	9 years	2023
Inorganic Chemicals (Including Nitrite) ..... (sw)	☒		
Inorganic Chemicals (Including Nitrite) ..... (gw)	☐	9 years	2023
SOCs	☐	3 years	2020
VOCs (sw)	☒		
VOCs (gw)	☐	3 years	2020
Radionuclides (Community Water Systems Only):			
Gross Alpha	☐	6 years	2026
Radium 226/228	☐	9 years	2026
Uranium	☐	9 years	2025
***Distribution** System Sampling:*			
Coliform Bacteria	☐	Monthly	
Asbestos (for AC pipe/asbestos geologic areas) ..	☒		
TTHMs and HAA5s	☐	3 years	July, 2020
Lead and Copper, # sites: 5	☐	3 years	June 1-Sept 30, 2020
Other Sampling:			
TOC	☒		
Turbidity	☒		
Source Water Coliform	☒		
Other (specify)	☐		

Yes	No	
☐	☒	• Is all required monitoring current? Lead & copper past due
☒	☐	Are samples collected at the correct locations in the system?

Yes	No	
☒	☐	• Have all MCL violations or LCR AL exceedances been addressed? ☐ N/A
☐	☐	DBP's collected at correct locations? ☒ N/A
☒	☐	• Does the system have a written coliform sampling plan?

Does the plan include:

Yes	No		Yes	No	
☒	☐	Brief narrative	☒	☐	Rotation schedule
☒	☐	Distribution map	☒	☐	Repeat locations
☒	☐	Sample site locations	☒	☐	Source locations ☐ N/A

Comments:

Management & Operations

O&M Manual and Emergency Response Plan

Yes	No	
☒	☐	• Does system have an operation and maintenance manual? Updated Feb. 2017
☒	☐	• Does system have an emergency response plan? Updated Feb. 2017
☒	☐	Do any system components have auxiliary power?
		If yes, describe: generator for boost pump

Operator Certification

Yes	No	N/A	
☒	☐		• Is the DRC identified and certified at the appropriate level?
		☒	If the DRC is a contract operator, how do they work with the system?
☐	☐	☒	• Does system have written protocols for under-certified operators?

Plan Review/Master Plan

Yes	No	N/A	
☒	☐	☐	• Have all major modifications been approved by DWS?
☐	☐	☒	• Does the system have a current (<20 yr. old) master plan? (Not required if < 300 connections)
			What year was the plan completed?

Compliance Status

Yes	No	N/A	
☒	☐		• Is water system in compliance (all orders resolved and not a priority non-complier)?
☒	☐	☐	• Does the system issue public notice as required?
☒	☐	☐	• Are consumer confidence reports sent to users each year?

Comments:

1 of 5

Well #1



Well #2





P/T's

12-11-17

pws #4100456

NOTICE TO WATER WELL CONTRACTOR: The original and first copy of this report are to be filed with the STATE ENGINEER, SALEM, OREGON within 30 days from the date of well completion.

CLAC 009528

WATER WELL REPORT

STATE OF OREGON (Please type or print) Do not write above this line

RECEIVED JUN 17 1974 STATE ENGINEER SALEM, OREGON

State Well No. 3S/1E-22bb

State Permit No.

(1) OWNER:

Name PAUL HEBB

Address P.O. BOX 524 LAKE OSWEGO ORE

(2) TYPE OF WORK (check):

New Well [X] Deepening [ ] Reconditioning [ ] Abandon [ ]

If abandonment, describe material and procedure in Item 12.

(3) TYPE OF WELL:

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

(4) PROPOSED USE (check):

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

CASING INSTALLED:

Threaded [ ] Welded [X]

10" Diam. from +1 ft. to 70 ft. Gage .279

" Diam. from ft. to ft. Gage

" Diam. from ft. to ft. Gage

PERFORATIONS:

Perforated? [ ] Yes [X] No.

Type of perforator used

Size of perforations in. by in.

perforations from ft. to ft.

perforations from ft. to ft.

perforations from ft. to ft.

(7) SCREENS:

Well screen installed? [ ] Yes [X] No

Manufacturer's Name

Type Model No.

Diam. Slot size Set from ft. to ft.

Diam. Slot size Set from ft. to ft.

(8) WELL TESTS:

Drawdown is amount water level is lowered below static level

Was a pump test made? [X] Yes [ ] No If yes, by whom? STRASSER

Yield: 30 gal./min. with 54 ft. drawdown after 24 hrs.

Bailer test gal./min. with ft. drawdown after hrs.

Artesian flow g.p.m.

Temperature of water 55 Depth artesian flow encountered ft.

(9) CONSTRUCTION:

Well seal—Material used CEMENT GROUT

Well sealed from land surface to 70 ft.

Diameter of well bore to bottom of seal 14 in.

Diameter of well bore below seal 10 in.

Number of sacks of cement used in well seal 35 sacks

Number of sacks of bentonite used in well seal sacks

Brand name of bentonite

Number of pounds of bentonite per 100 gallons of water lbs./100 gals.

Was a drive shoe used? [ ] Yes [X] No Plugs Size: location ft.

Did any strata contain unusable water? [ ] Yes [X] No

Type of water? depth of strata

Method of sealing strata off

Was well gravel packed? [ ] Yes [X] No Size of gravel:

Gravel placed from ft. to ft.

(10) LOCATION OF WELL:

County CLACK. Driller's well number 5478

NW¼ NW¼ Section 11 T. 2S R. 2E W.M.

Bearing and distance from section or subdivision corner

(11) WATER LEVEL: Completed well.

Depth at which water was first found 148 ft.

Static level 90 ft. below land surface. Date 5/23/74

Artesian pressure lbs. per square inch. Date

(12) WELL LOG:

Diameter of well below casing 10

Depth drilled 221 ft. Depth of completed well 221 ft.

Formation: Describe color, texture, grain size and structure of materials; and show thickness and nature of each stratum and aquifer penetrated, with at least one entry for each change of formation. Report each change in position of Static Water Level and indicate principal water-bearing strata.

MATERIAL	From	To	SWL
TOP SOIL	0	1	
BROWN CLAY	1	5	
CLAY AND BROKEN ROCK	5	13	
BROWN SAND	13	19	
DECOMPOSED ROCK	19	26	
GREY SILT AND BROKEN ROCK	26	30	
SILT SAND AND GRAVEL	30	56	
BROWN AND BLACK BASALT	56	81	
RED BASALT	81	88	
BLACK BASALT	88	137	
MED HARD GREY BASALT	137	148	
BROKEN BLACK BASALT	148	179	
POROUS BLACK BASALT	179	182	
MED HARD BROWN BASALT	182	196	
MED HARD BLACK BASALT	196	209	
MED HARD GREY BASALT	209	218	
BROKEN GREY BASALT	218	220	
MED HARD GREY BASALT	220	221	

Work started APR 25 19 74 Completed MAY 24 19 74

Date well drilling machine moved off of well JUNE 6 19 74

Drilling Machine Operator's Certification:

This well was constructed under my direct supervision. Materials used and information reported above are true to my best knowledge and belief.

[Signed] (Drilling Machine Operator) Date 6/12 19 74

Drilling Machine Operator's License No. 54

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 R.J. STRASSER DRILLING CO (Person, firm or corporation) (Type or print)

Address 8110 SE SUNSET LANE PORTLAND ORE.

[Signed] Robert J. Strasser (Water Well Contractor)

Contractor's License No. 10 Date JUNE 12 19 74

(USE ADDITIONAL SHEETS IF NECESSARY)

CLAC 55931

15-15

STATE OF OREGON
WATER SUPPLY WELL REPORT
(as required by ORS 537.765)
Instructions for completing this report are on the last page of this form.

WELL I.D. # L 41302
START CARD # 128561

(1) OWNER: Well Number
Name RIVERSEND RIVERBANK WATER IMPR. DIST.
Address 31180 SW RIVERLANE RD.
City WEST LINN State OR Zip 97068

(2) TYPE OF WORK
[X] New Well [ ] Deepening [ ] Alteration (repair/recondition) [ ] Abandonment

(3) DRILL METHOD:
[X] Rotary Air [ ] Rotary Mud [ ] Cable [ ] Auger
[ ] Other

(4) PROPOSED USE:
[X] Domestic [ ] Community [ ] Industrial [ ] Irrigation
[ ] Thermal [ ] Injection [ ] Livestock [ ] Other

(5) BORE HOLE CONSTRUCTION:
Special Construction approval [ ] Yes [X] No Depth of Completed Well 250 ft.
Explosives used [ ] Yes [X] No Type ____ Amount ____

HOLE Diameter	From	To	SEAL Material	From	To	Sacks or pounds
14	0	50	BENT.	0	25	43 SACKS
10	50	103	CEMENT	25	103	70 SACKS
8	103	250				

How was seal placed: Method [ ] A [X] B [X] C [ ] D [ ] E
[X] Other BENT. POURED DRY
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	103	250	[X]	[ ]	[X]	[ ]
					[ ]	[ ]	[ ]	[ ]
					[ ]	[ ]	[ ]	[ ]
					[ ]	[ ]	[ ]	[ ]
Liner:	NONE				[ ]	[ ]	[ ]	[ ]
					[ ]	[ ]	[ ]	[ ]

Final location of shoe(s)

(7) PERFORATIONS/SCREENS:
[ ] Perforations Method NONE
[ ] Screens Type ____ Material ____

From	To	Slot size	Number	Diameter	Tele/pipe size	Casing	Liner
						[ ]	[ ]
						[ ]	[ ]
						[ ]	[ ]
						[ ]	[ ]

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

Yield gal/min	Drawdown	Drill stem at	Time
300	N/A	250	1 hr

Temperature of water 52 Depth Artesian Flow Found ____
Was a water analysis done? [ ] Yes By whom NO
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 CLACKAMAS Latitude ____ Longitude ____
Township 3S N or S Range 1E E or W WM.
Section 22 NW 1/4 NW 1/4
Tax Lot 2801 Lot ____ Block ____ Subdivision ____
Street Address of Well (or nearest address)
473 HEBB PARK RD., WEST LINN, OR

(10) STATIC WATER LEVEL:
120 ft. below land surface. Date 7-11-00
Artesian pressure ____ lb. per square inch. Date ____

(11) WATER BEARING ZONES:
Depth at which water was first found 20'

From	To	Estimated Flow Rate	SWL
20	30	20	20
180	250	300	120

(12) WELL LOG:
Ground Elevation ____

Material	From	To	SWL
SOIL & COBBLES	0	3	
CLAY & COBBLES	3	20	
SAND & GRAVEL	20	33	
BROKEN ROCK	33	37	
CLAY GREY W/GRAVEL	37	45	
BRN CLAY W/GRAVEL	45	50	
BASALT GREY WTHRD	50	54	
BASALT GREY HARDER	54	87	
BASALT GREY & RED	87	93	
BASALT GRY MED	93	104	
BASALT GREY & GREEN	104	110	
BASALT GREY	110	177	
BASALT GREY & LAVENDAR FRACTURED & POROUS	177	184	
BASALT GREY SEAMY	184	226	
BASALT GREY FRACTURED	226	250	

Date started 7-8-00 Completed 7-11-00

(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 1358
Signed ____ Date 8-3-00

(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 688
Signed ____ Date 8-3-00

ORIGINAL - WATER RESOURCES DEPARTMENT FIRST COPY - CONSTRUCTOR SECOND COPY - CUSTOMER