Providing safe, reliable, affordable, and sustainable service.

Part B Small Water System Management Program

For

Lazy Acres 351

ID# 46441K

October 12, 2022

Prepared by:

Doug Piehl, P.E.
Thurston PUD
1230 Ruddell Road SE
Lacey, WA 98366
(360) 890-6021
Doug.piehl@thurston.pud.org
www.thurstonpud.org

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The time to repair a roof is when the sun is shining.
-President John F. Kennedy

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SWSMP Tables

Executive Summary

Water System Overview

The Lazy Acres Water System was constructed in 1973. It is located in the NE¼ of the SW¼ of Section 04, Township 17 North, Range 2 West, W.M., in Thurston County. The system was designed for 97 connections to serve the Plat of Lazy Acres and Foster Place. The wells, pumphouse and distribution system were constructed in three phases and presently serve 94 single family homes.

Purpose of the SWSMP

The Small Water System Management Program (SWSMP) has been prepared in accordance with Washington Administrative Code (WAC) 246-290-105 and the Washington Department of Health (DOH) guidance document issued in 2011 (DOH 331-134). The SWSMP serves several purposes including providing a:

- Central filing system for numerous water system records,
- Process to evaluate present and future system deficiencies and improvements necessary for continued water system operation, and
- List of operation and maintenance duties that can reviewed, used and improved as necessary by existing and future water system personnel so they may effectively manage and operate the water system.
- Allowing application to the DWSRF loan program per WAC 246-296-100.

Thurston PUD operates over 270 Group A and B water systems under its approved Part A Water System Plan. This SWSMP is supplemental to the Part A plan, and contains primarily system specific information. Information related to general PUD management, policies, rate structure, and financial planning can be found in the Part A plan, available on the Thurston PUD website at www.thurstonpud.org/docs/Water Systems/Thurston PUD Water System Plan Part A - Umbrella Plan Update 3-30-2021.pdf

Next Steps for Water System Improvements

Recent testing performed by Thurston PUD has found PFAS compounds exceeding the State Advisory Limit (SAL) in Lazy Acres three wells. Thurston PUD has engaged the Engineering Firm Northwest Water Systems Inc. to provide design of a water treatement system to reduce all PFAS compounds to below the SAL. Thurston PUD is applying for funding to accomplish the installation of the water treatement system under the DWSRF loan program.

1.1 *Management Structure and the Governing Board*

See Part A Plan, Section 1.1 for a description of Thurston PUD Management and Governing Structure.

1.2 *Service Area and Facilities Map*

Table 1.2.1
Service and Facilities Map

Attach a copy of each map	Date produced	Produced by
Vicinity Map	1999	American Water Resources
Distribution System Map	1999	American Water Resources
Facilities Map	1992	Howard Godat
Service Area	1999	American Water Resources

Further action

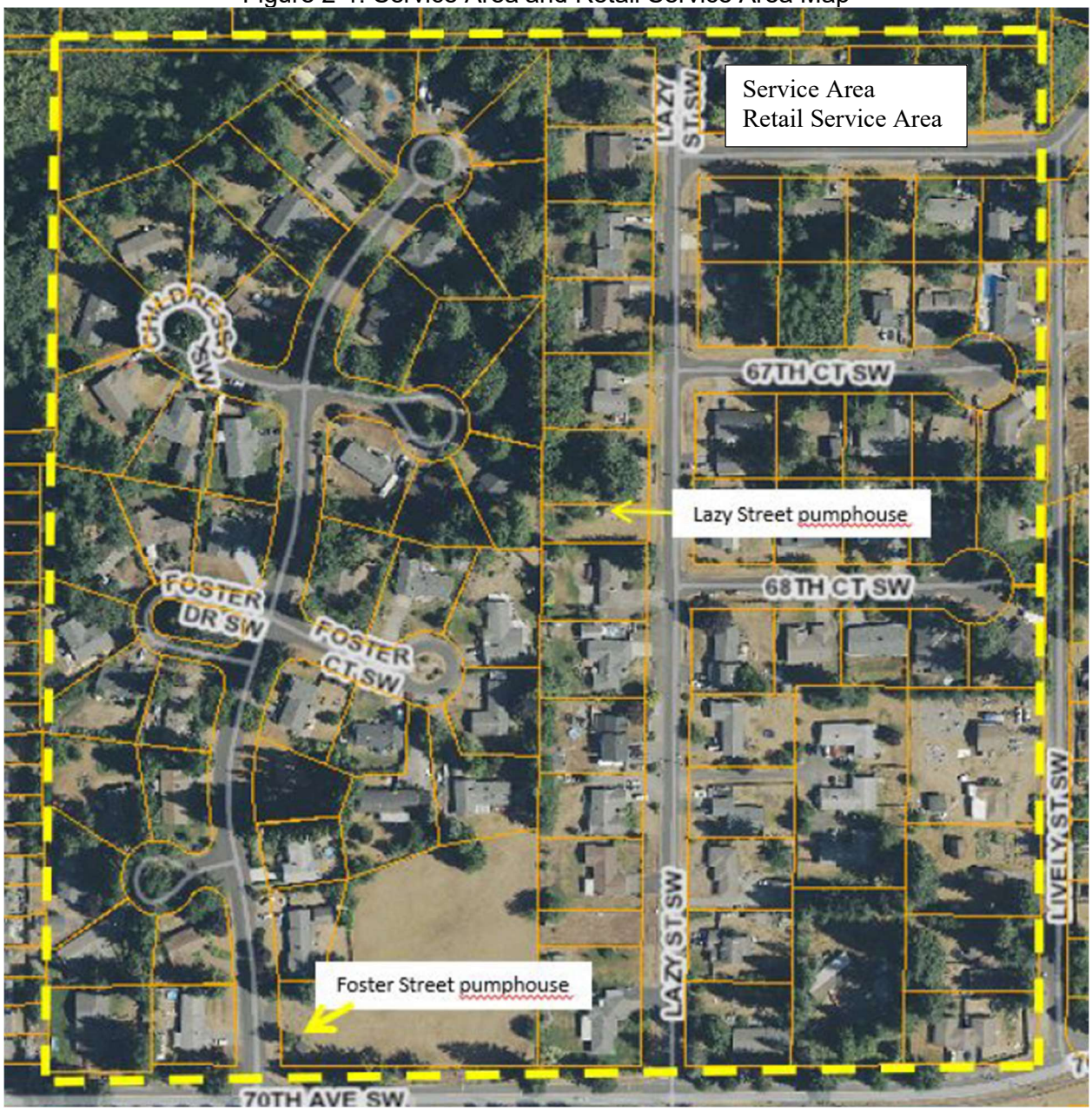
- Is there another water system nearby?

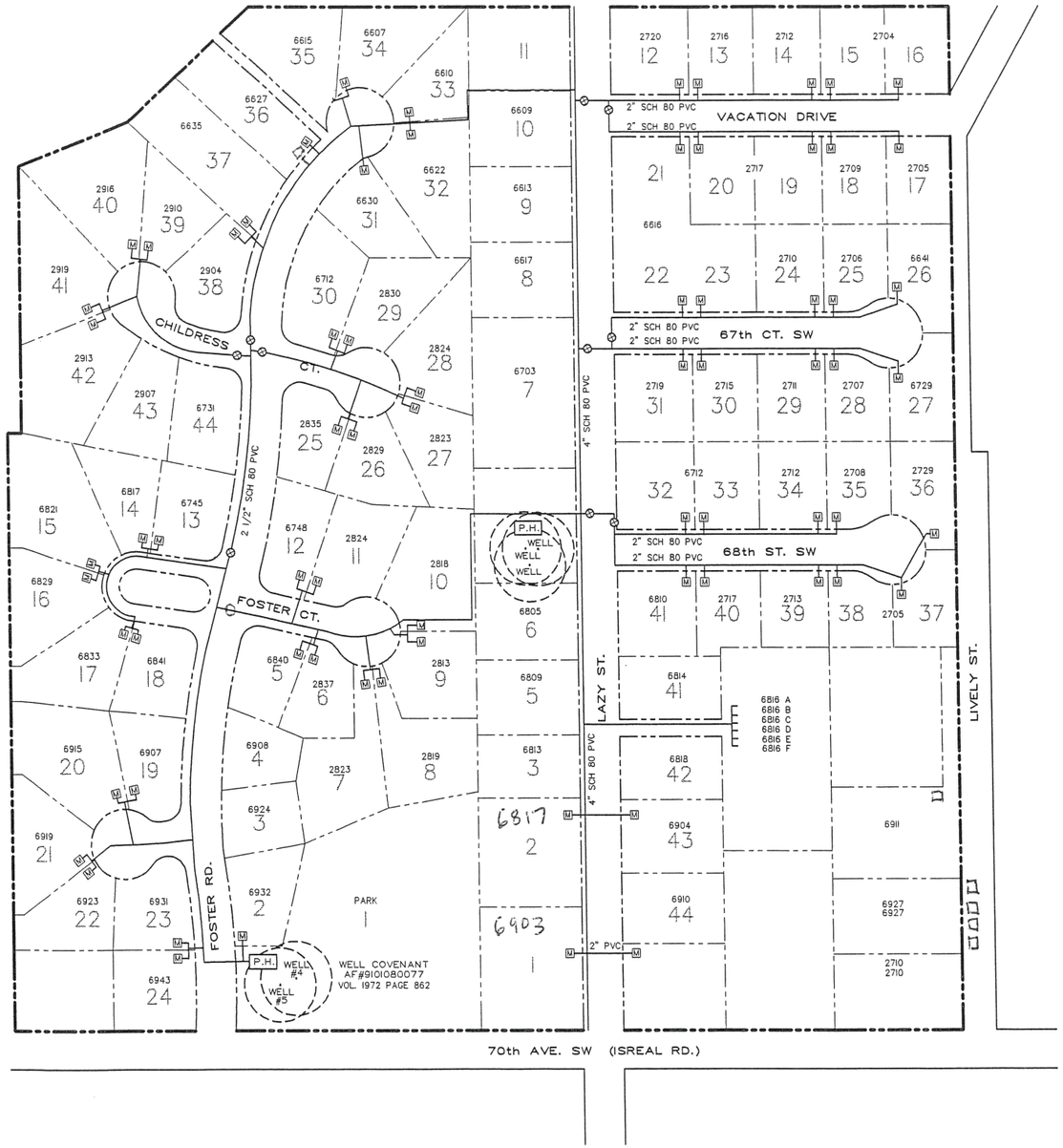
  ☒ Yes.

  ☐ No.

Water System Name	WSID	Type	Contact
City of Tumwater	89700	Group A	(360) 754-4150
Israel Place San Angelo Park	362740	Group A	(253) 851-3422
Holiday Acres	33668	Group A	(360) 357-4691

Figure 2-1: Service Area and Retail Service Area Map





SYSTEM PLAN
(WITH AS-BUILT CORRECTIONS)

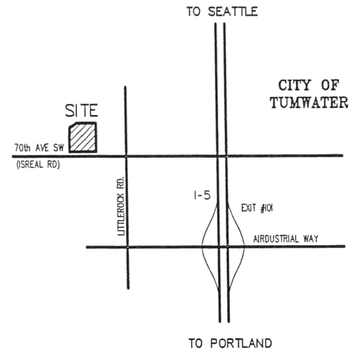
100 0 50 100 100

NOTE:

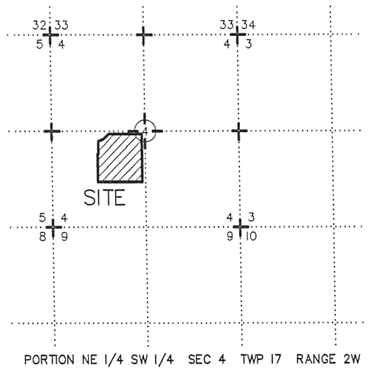
1) FOR AWRI STANDARD SYMBOLS SEE WSP SEC. 1.6.10.1
2) FOR AWRI STANDARD CONSTRUCTION DETAILS SEE WSP SEC. 1.6.9

WELL DATA

WELL #	GPM	DEPTH
SO 1	50	55
SO 2	50	55
SO 3	38	120
SO 4	61	-
SO 5	25	-

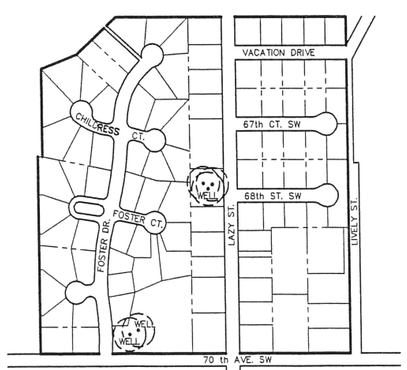


VICINITY MAP
NO SCALE



PORTION NE 1/4 SW 1/4 SEC 4 TWP 17 RANGE 2W

LEGAL LOCATION
NO SCALE



SITE PLAN
NO SCALE

NOTES AND REVISIONS

WSDOH OWNER NO. 15229 — WSDOH SMA NO. 112

American Water Resources, Inc.

921-B MIDDLE FORK RD.
ONALASKA, WA. 98570

PHONE (360) 978-6178
FAX (360) 978-5225

2.351 LAZY ACRES

GROUP A WATER SYSTEM

WFI 46441K — THURSTON COUNTY

WATER RIGHTS G2-21039f

GPM 56 Ac.Ft. 433

CONNECTIONS
ACTIVE 86 AUTHORIZED 86

WIRA# 23 WFI

FILE# VF-N121A

DRAWN BY: TAL
CHECKED BY: VRF
FIELD REVIEWED BY:
APPROVED BY:
DATE: 01/16/99
REVISED: 05/23/99

SHEET 1 OF 2

SECTION 4, T17N, R2W, W.M.

N

SCALE: 1"=100'

GENERAL SPECIFICATIONS

1. ALL INSTALLATION, MATERIALS & WORKMANSHIP SHALL COMPLY WITH AWWA & APWA SPECIFICATIONS EXCEPT AS HEREAFTER MODIFIED

2. PIPE FOR WATERMAINS SHALL COMPLY WITH ONE OF THE FOLLOWING:
   A. PVC PRESSURE PIPE SHALL CONFORM TO ASTM D2241 FOR STANDARD DIMENSION RATIOS (SDR), 200 PSI PIPE SHALL HAVE AN SDR EQUAL TO OR LESS THAN TWENTY-ONE (21). RUBBER RINGS SHALL CONFORM TO ASTM D1869.
   B. DUCTILE-IRON PIPE SHALL CONFORM TO AWWA C151 STANDARD THICKNESS CLASS 50.
   C. STEEL PIPE SHALL BE HOT-DIP GALVANIZED INSIDE AND OUT AND SHALL CONFORM TO ASTM A120.

3. ALL VALVES SHALL BE GATE VALVES CONFORMING TO AWWA C500 UNLESS OTHERWISE NOTED

4. TESTING: ALL NEW WATERMAINS & APPURTENTANT ITEMS SHALL BE TESTED TO SYSTEM PRESSURE PLUS 150 PSI WITH A MIN. TEST PRESSURE OF 200 PSI. THE TEST PRESSURE SHALL BE MAINTAINED UNTIL THE ENGINEER HAS DETERMINED THAT THE SECTION OF PIPE, GATE VALVES & FITTINGS ARE WATER-TIGHT. IF THERE ARE NO VISIBLE LEAKS AND TEST PRESSURE IS MAINTAINED FOR FIFTEEN (15) MINUTES AND THE PRESSURE DROP IS LESS THAN FIVE (5) PSI, THE MAIN WILL BE ACCEPTED AS A WATER-TIGHT INSTALLATION.

5. DISINFECTION: ALL MAINS, TANKS & APPURTENANCES SHALL BE DISINFECTED WITH A CHLORINE SOLUTION FOR 24 HOURS. RESIDUAL CHLORINE SHALL BE NOT LESS THAN 10 PPM AT THE END OF 24 HOURS. A BACTERIOLOGICAL TEST SHALL BE TAKEN TO ASSURE THAT THE SYSTEM IS SANITARY BEFORE USE.

6. FLUSHING: AFTER DISINFECTION THE SYSTEM SHALL BE THOROUGHLY FLUSHED. WATER SHALL NOT BE DISCHARGED DIRECTLY TO A STREAM, LAKE OR BAY.

7. RECORD DOCUMENTS: IN ORDER TO PROVIDE THE REQUIRED INFORMATION NECESSARY TO COMPILE "DRAWINGS OF RECORD" AND TO AVOID UNNECESSARY DUPLICATION OF SERVICES THE CONTRACTOR SHALL PROVIDE HOWARD GODAT & ASSOC. WITH ALL PERTINENT DATA REGARDING INSTALLATION.

8. CERTIFICATION: AFTER COMPLETION OF INSTALLATION, FLUSHING, TESTING & DISINFECTION BUT PRIOR TO USE, THE ENGINEER SHALL PREPARE AND SUBMIT A "CERTIFICATION" TO THE APPROVING AGENCY THAT ALL WORK HAS BEEN ACCOMPLISHED IN GENERAL COMPLIANCE WITH THE APPROVED DESIGN AND RECORD DOCUMENTS.

RECORD DOCUMENTS

THE SYSTEM INSTALLED PROVIDES THE OPERATIONAL CAPABILITY AS DESIGNED BY HOWARD GODAT & ASSOCIATES, INC.
THIS PROJECT HAS BEEN INSPECTED BY ME OR MY STAFF UNDER MY SUPERVISION AND TO THE BEST OF MY KNOWLEDGE WAS CONSTRUCTED IN ACCORDANCE WITH THESE DRAWINGS.

Howard Godat
SIGNATURE

3-11-92
DATE

HOWARD N. GODAT
STATE OF WASHINGTON
REGISTERED
PROFESSIONAL ENGINEER
19792

EXPIRES 3-14-93

DESIGNED BY: KO
DRAWN BY: KO
CHECKED BY: DLG
DATE: DEC. 1989
SCALE: H 1"=100'
V

HOWARD GODAT & ASSOCIATES
CONSULTING CIVIL ENGINEERS
2708 WESTMOOR COURT
OLYMPIA, WA. 98502
(206) 943-1599
FAX: 357-6299

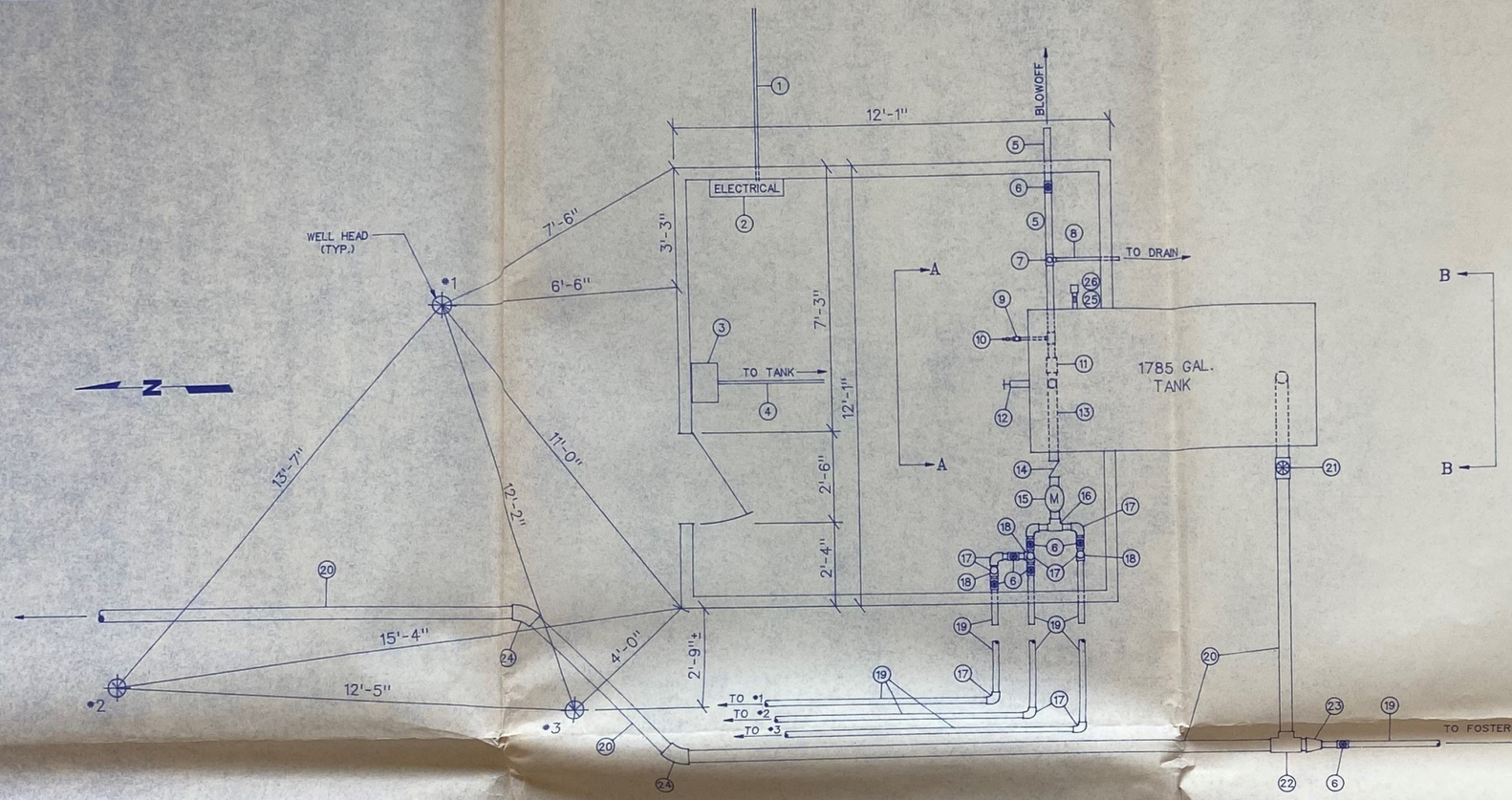
REVISIONS: DATE:

FOSTER PLACE
LAZY STREET
WATER SYSTEM

SHEET: 1 OF 3
JOB: 2516

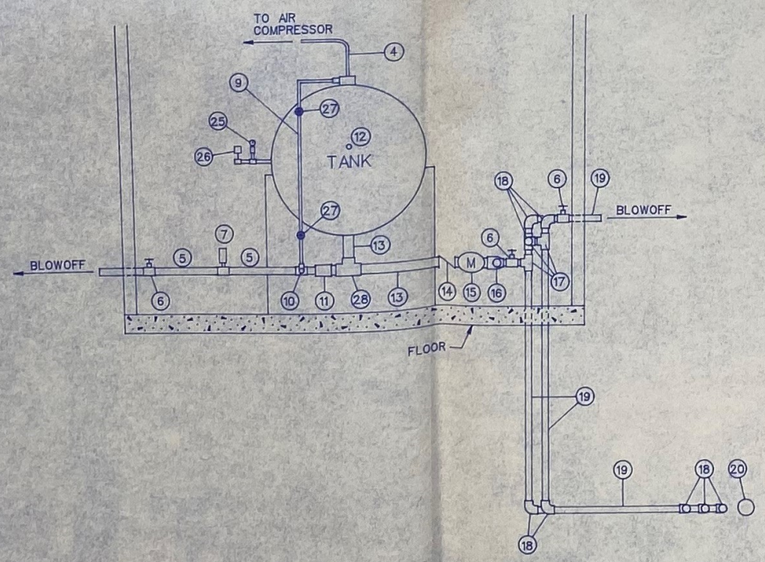
LAZY STREET PUMP HOUSE

N.T.S.

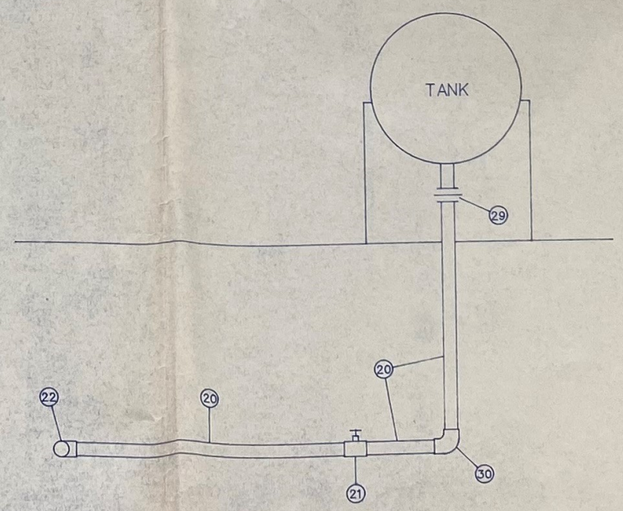


PLAN

1	ELEC. CONDUIT
2	ELEC. CONTROL BOX
3	AIR COMPRESSOR
4	AIR LINE
5	2" GALV. PIPE
6	2" GATE VALVE
7	PRESSURE RELIEF VALVE, SET @ 100 psi
8	DRAIN PIPE
9	SIGHTGLASS AS'M'BLY
10	HOSE BIB
11	3" x 2" REDUCER
12	AIR RELEASE VALVE, HOFFMAN NO. 79
13	3" GALV. PIPE
14	3" CHECK VALVE
15	3" METER, HAYS
16	2" x 3" TEE
17	2" x 2" TEE
18	2" 90° BEND
19	2" PVC PIPE
20	4" PVC PIPE
21	4" GATE VALVE
22	4" x 4" TEE
23	4" x 2" REDUCER
24	4" 45° BEND
25	PRESSURE GAUGE
26	PRESSURE SWITCH
27	¾" VALVE
28	3" x 3" TEE
29	4" UNION
30	4" 90° BEND



SECTION A-A



ELEVATION

SECTION B-B

NOTE:

MODIFY PUMP CONTROLS SO THAT ALL PUMPS ARE INDEPENDENT OF EACH OTHER AND ALTERNATE PUMP-1 IS THE LEAD PUMP, PUMP-2 IS A LAG PUMP & PUMP-3 IS A LAG PUMP INDEPENDENT OF PUMP-2 THEN ALTERNATE TO PUMP-2 AS LEAD PUMP & PUMP-3 AS A LAG PUMP & PUMP-1 A LAG PUMP INDEPENDENT OF PUMP-3 THEN ALTERNATE TO PUMP-3 AS LEAD PUMP & PUMP-1 AS LAG PUMP & PUMP-2 A LAG PUMP INDEPENDENT OF PUMP-1

HOWARD N. GODAT STATE OF WASHINGTON REGISTERED PROFESSIONAL ENGINEER

EXPIRES 3-14-93

RECORD DOCUMENTS

THE SYSTEM INSTALLED PROVIDES THE OPERATIONAL CAPABILITY AS DESIGNED BY HOWARD GODAT & ASSOCIATES, INC.
THIS PROJECT HAS BEEN INSPECTED BY ME OR MY STAFF UNDER MY SUPERVISION AND TO THE BEST OF MY KNOWLEDGE WAS CONSTRUCTED IN ACCORDANCE WITH THESE DRAWINGS.

Howard Godat — 3-11-92
SIGNATURE — DATE

DESIGNED BY:
DRAWN BY: T.J.B.
CHECKED BY:
DATE: OCT. 1989
SCALE: H. AS NOTED
V

HOWARD GODAT & ASSOCIATES
CONSULTING CIVIL ENGINEERS
2708 WESTMOOR COURT
OLYMPIA, WA. 98502
(206) 943-1599
FAX: 357-6299

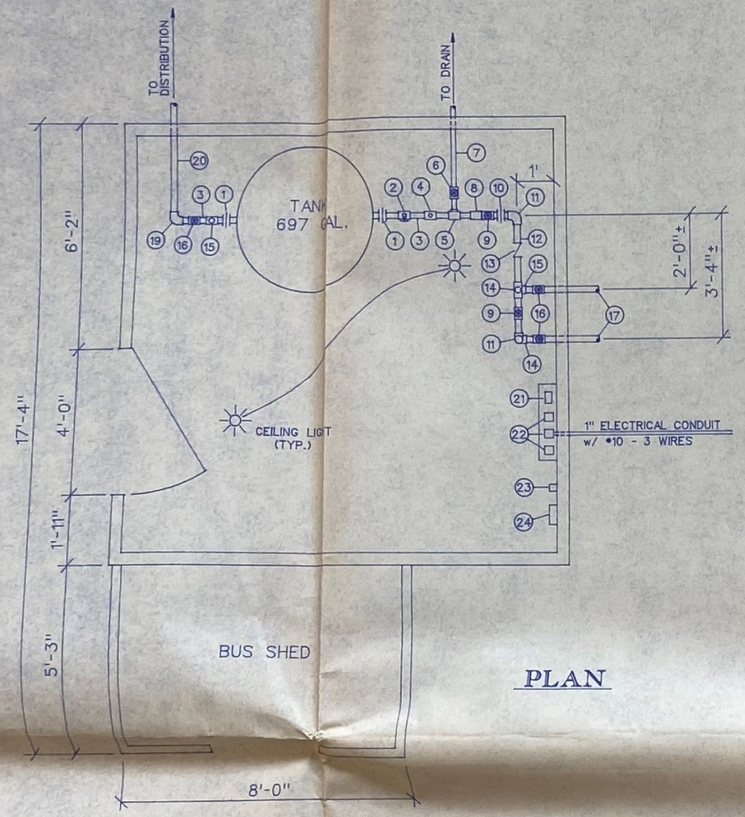
REVISIONS: KO DEC. 27 DATE: 1989

FOSTER PLACE - LAZY STREET WATER SYSTEM

SHEET: 2 OF 3
JOB: 2516

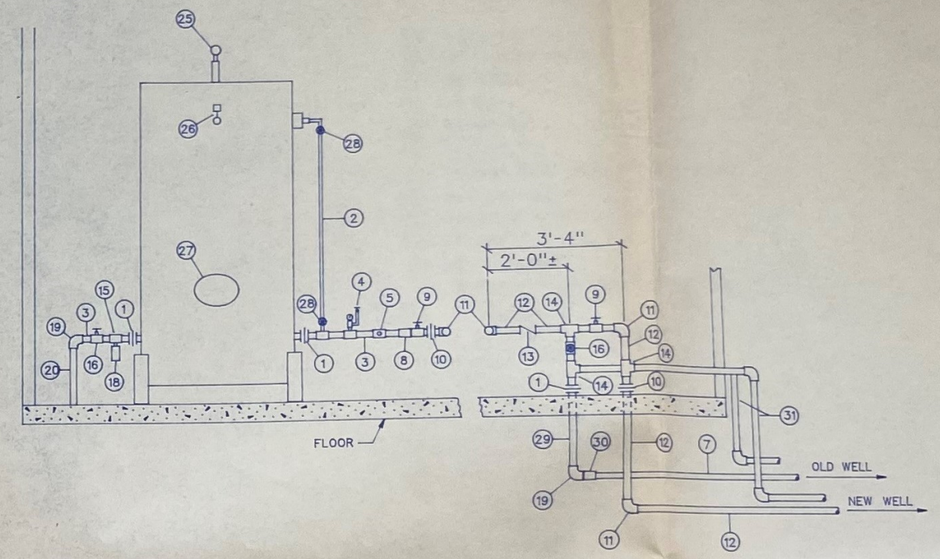
FOSTER PLACE
PUMP HOUSE

N.T.S.

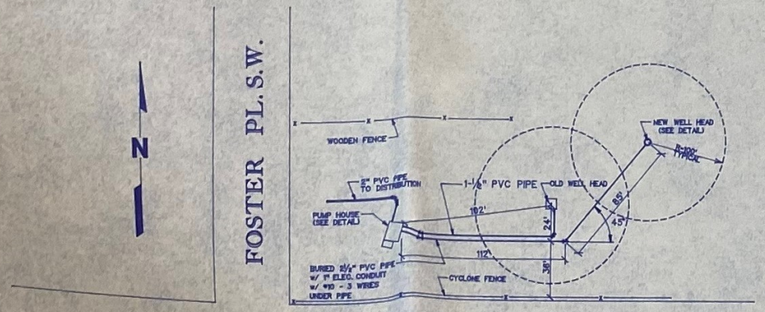


PLAN

1. 2" UNION
2. SIGHTGLASS ASS'MBLY
3. 2" GALV. PIPE
4. PRESSURE GAUGE (0-100 psi) & HOSE BIB
5. 2" x 1½" TEE
6. 1½" GATE VALVE
7. 1½" PVC PIPE
8. 2½" X 2" REDUCER
9. 2½" GATE VALVE
10. 2½" UNION
11. 2½" 90° BEND
12. 2½" PVC PIPE
13. 2-1/2" CHECK VALVE
14. 2½" X 2" TEE
15. 2"x2" TEE
16. 2" GATE VALVE
17. 2" GALV. PIPE
18. PRESSURE RELIEF VALVE, SET @ 100psi
19. 2" 90° BEND
20. 2" PVC PIPE, ANGLED DOWN @ 45°
21. ELAPSED TIME METER
22. PUMP CONTROL BOXES
23. ELECTRICAL OUTLET
24. BREAKER PANEL
25. AIR RELEASE VALVE, HOFFMAN NO. 77
26. PRESSURE SWITCH, 40-60 PSI
27. 14" x 10" MANHOLE
28. ¾" VALVE
29. 2" PVC PIPE
30. 2" x 1½" REDUCER
31. 2" GALV. DRAIN LINE

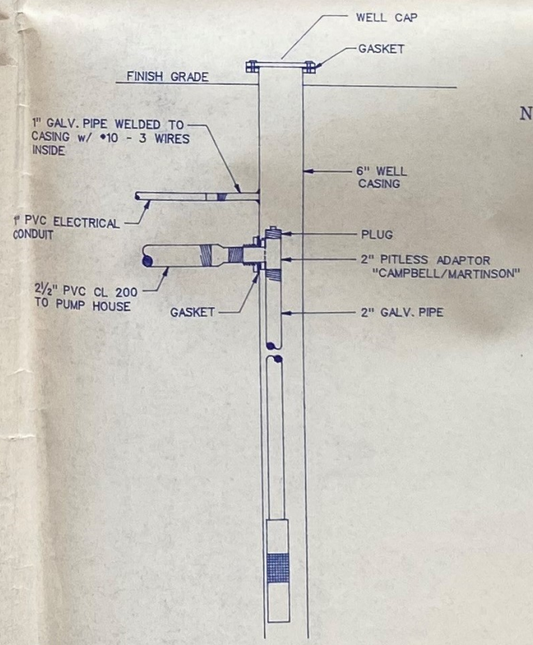


ELEVATION



VICINITY MAP

N.T.S.



NEW WELL HEAD DETAIL

N.T.S.

NOTE:
REMOVE WELL CAP TO MEASURE WATER LEVEL

NOTE:
NO IMPROVEMENTS OR MODIFICATIONS ARE REQ'D TO THIS PRESSURE SYSTEM

HOWARD N. GODAT — STATE OF WASHINGTON — 3211 — REGISTERED PROFESSIONAL ENGINEER

EXPIRES 3-14-93

RECORD DOCUMENTS

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Howard Godat — 3-11-92

DESIGNED BY: T.J.B.
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2708 WESTMOOR COURT
OLYMPIA, WA. 98502
(206) 943-1599
FAX: 357-6299

REVISIONS: KO DEC. 26, 1989
DATE:

FOSTER PLACE - LAZY STREET WATER SYSTEM

SHEET: 3 OF 3

1.3 *Service Policies*

The Lazy Acres water system is non-expanding. See Part A Plan, Section 2.0 for Thurston PUD service policies.

1.4 *Cross-Connection Control Program*

Table 1.4.1
Cross-Connection Control Program

Identify the steps you completed and target completion dates for remaining required tasks.

Completed	Task	Completion Date
☒	Step 1: Retain a cross-connection specialist (CSS) certified by WADOH.	ongoing
☒	Step 2: Establish legal authority to implement a program. Attach a copy.	2005
☒	Step 3: Develop administrative and technical procedures.	2005
☒	Step 4: Develop a record-keeping and reporting system.	2005
☒	Step 5: Conduct initial hazard evaluations and ensure backflow preventers are installed.	ongoing
☒	Step 6: Ensure assembly testing.	ongoing
☒	Step 7: Educate consumers about cross connections.	ongoing
☒	Step 8: Reevaluate existing services and review new applications for service.	ongoing

See Part A Water System Plan, Section 5-5 and Appendix R for Cross-Connection Control Program and details. Thurston PUD uses asset management software to track CCC devices and operational/inspection status and reminders. Customers are surveyed when they purchase a property or open an account, as well as prior to every sanitary survey. Lazy Acres water system customers do not currently report any cross connections or have any cross-connection devices. A listing of latest received surveys from system customers is found on the following pages.

CCCQ received	system	account	first	last	service address
11/16/2006	LAZY ACRES	008272-000	WASHBURN	ROGER AND HELGA	6924 FOSTER DR SW
11/27/2006	LAZY ACRES	008274-000	BROWN	LESLIE AND ELLEN	6840 FOSTER DR SW
11/15/2006	LAZY ACRES	008275-000	JOHNSON	KATHLEEN	2837 FOSTER CT SW
	LAZY ACRES	008278-000	NASH	TED	2823 FOSTER CT SW
5/17/2021	LAZY ACRES	008279-000	DAHLHOFF	GAIL	2819 FOSTER CT SW
11/6/2006	LAZY ACRES	008280-000	MODUN	GARY AND DOROTHY	2813 FOSTER CT SW
11/27/2006	LAZY ACRES	008283-000	RAUPP	KENNETH	2824 FOSTER PL SW
	LAZY ACRES	008286-000	BOLSER	CURTIS	2835 CHILDRESS CT SW
	LAZY ACRES	008290-000	SYRJA	JERRY AND GINA	2829 CHILDRESS CT SW
	LAZY ACRES	008292-000	ERICSSON	STEVE AND LORI	2823 CHILDRESS CT SW
3/27/2015	LAZY ACRES	008295-001	HENRICKSON	KATHY	2824 CHILDRESS CT SW
	LAZY ACRES	008296-000	BROWN	RICHARD AND BARBARA	2830 CHILDRESS CT SW
11/13/2006	LAZY ACRES	008299-000	LEE	MARGARET	6630 FOSTER DR SW
	LAZY ACRES	008302-000	CRAIG	MARY	6622 FOSTER DR SW
	LAZY ACRES	008305-000	BORST	STEVEN	6610 FOSTER DR SW
11/7/2006	LAZY ACRES	008306-000	MORGAN	JAMES	6607 FOSTER DR SW
	LAZY ACRES	008308-000	BENAVENTE	EUGENE AND KASHA	6615 FOSTER DR SW
	LAZY ACRES	008309-000	HILBERG	GLEN AND TERESA	6627 FOSTER PL SW
	LAZY ACRES	008310-000	MC MAHON	WILLIAM	6635 FOSTER DR SW
11/17/2006	LAZY ACRES	008321-000	GRAZUL	TRUDEL	2916 CHILDRESS CT SW
	LAZY ACRES	008322-000	MYERS	MICHAEL	2919 CHILDRESS CT SW
5/17/2021	LAZY ACRES	008330-000	ZELASKO	KERRY	2907 CHILDRESS CT SW
11/17/2006	LAZY ACRES	008336-000	BOYCE	TERILEE AND STEVE	6817 FOSTER DR SW
11/7/2006	LAZY ACRES	008337-000	JAMISON	WILLIAM	6821 FOSTER DR SW
11/27/2006	LAZY ACRES	008340-000	SEDORE	JAMES AND ELIZABETH	6833 FOSTER CT SW
	LAZY ACRES	008341-000	HILDRETH	EDWARD	6841 FOSTER DR SW
11/6/2006	LAZY ACRES	008343-000	WAGNER	CINDY	6907 FOSTER DR SW
5/17/2021	LAZY ACRES	008344-000	WHITE	RICHARD	6915 FOSTER DR SW
	LAZY ACRES	008350-000	MCNEAL	KELLY	6931 FOSTER DR SW
	LAZY ACRES	008352-000	SOPRASEUTH	KAM	6910 LAZY ST SW
	LAZY ACRES	008354-000	CLARK	DANIEL AND LYNN	6818 LAZY ST SW
	LAZY ACRES	008361-000	MC CLAFLIN	WESLEY	6814 LAZY ST SW
5/24/2021	LAZY ACRES	008365-000	MOUNTS	LAURIE	2717 68TH CT SW
	LAZY ACRES	008366-000	GERTSON	HARVEY	2713 68TH CT SW
6/15/2010	LAZY ACRES	008374-002	ROBBINS	DIANE	2716 68TH CT SW
	LAZY ACRES	008375-000	ROBBINS	SHARON	6712 LAZY ST SW
11/13/2006	LAZY ACRES	008377-000	WYNIA	MERLIN AND JOYCE	2719 67TH CT SW
11/16/2006	LAZY ACRES	008378-000	GREEN	CRAIG AND SUSAN	2715 67TH CT SW
	LAZY ACRES	008384-000	CLEMENT	MICHAEL AND KARI	6641 LIVELY ST
11/13/2006	LAZY ACRES	008389-000	LINDER	KRISTIN	2717 VACATION DR SW
	LAZY ACRES	008394-000	TAYLOR	BARBARA	2704 VACATION DR SW
11/22/2006	LAZY ACRES	008395-000	MC GINNIS	MEGAN	2712 VACATION DR SW
	LAZY ACRES	008398-000	SANDERS	BRUCE AND LYDIA	2720 VACATION DR SW
12/5/2006	LAZY ACRES	008400-000	CLARK	LAUREN AND PATRICIA	6609 LAZY ST SW
	LAZY ACRES	008402-000	MACKEY	STANLEY AND DORIS	6617 LAZY ST SW
5/20/2021	LAZY ACRES	008409-000	FOX	DAVE AND CHRISTINE	6817 LAZY ST SW

11/16/2006	LAZY ACRES	008430-000	BRISLAWN	MICHAEL AND JANET	6911 LIVELY ST SW
	LAZY ACRES	010056-000	LAZY ACRES (351)	SOURCE	6942 FOSTER DR SW
11/21/2006	LAZY ACRES	010322-000	MACAULEY	JASON AND MICHELLE	2910 CHILDRESS CT SW
8/25/2010	LAZY ACRES	010617-001	SOUTHARD	MICHAEL	2710-B 70TH AVE SW
	LAZY ACRES	010617-000	SOUTHARD	MICHAEL	2710-A 70TH AVE SW
3/15/2010	LAZY ACRES	010988-000	MONTELLO	JEFF	2705 VACATION DR SW
	LAZY ACRES	011306-000	ENG	JUDY	6816-C LAZY ST SW
5/18/2021	LAZY ACRES	011905-000	APGAR	STEPHANIE	6712 FOSTER PL SW
	LAZY ACRES	013287-000	WITHERS	KARA AND LUCAS	2707 67TH CT SW
8/17/2012	LAZY ACRES	013721-000	MILLER	DANIEL AND TERRI	2705 68TH CT SW
1/16/2014	LAZY ACRES	014521-000	Schiemer	Megan and Matt	6927-A LIVELY ST SW
2/3/2014	LAZY ACRES	014532-000	SCHMITT	LEAH AND JOSHUA	2710 67TH CT SW
9/2/2011	LAZY ACRES	014621-000	LOCKEN	VICKY AND DOUG	6731 FOSTER DR SW
12/5/2006	LAZY ACRES	015380-000	APPLEBY	ANNE	6729 LIVELY ST SW
11/16/2006	LAZY ACRES	015449-000	JASMINE MALAN	ERIC PITSAROFF AND	6613 LAZY ST SW
11/6/2006	LAZY ACRES	015465-000	TREPTOW	ARTHUR AND ANJELA	6616 LAZY ST SW
9/4/2015	LAZY ACRES	015561-000	BOGGS	DWAYNE	6612 LAZY ST SW
3/9/2015	LAZY ACRES	015949-000	FREETO	DOUGLAS AND NICOLE	2716 VACATION DR SW
7/19/2012	LAZY ACRES	015957-000	BRADLEY LININGER	AMBER FANNIN AND	2913 CHILDRESS CT SW
7/29/2016	LAZY ACRES	016173-000	KIRKLAND	NOAH AND MEGAN	2709 VACATION DR SW
6/4/2010	LAZY ACRES	016434-000	JOHANSEN	KIMBERLEE	2711 67TH CT SW
11/9/2009	LAZY ACRES	016518-000	GRAY	SANDRA	6709 LIVELY ST
5/1/2014	LAZY ACRES	016554-000	PHILLIPS	ROBERT AND TAYLOR	6816-A LAZY ST SW
1/2/2014	LAZY ACRES	016839-000	SAEGER	NICHOLE AND JON	6809 LAZY ST SW
8/11/2014	LAZY ACRES	016850-000	MACDONALD	BRIAN	2712 68TH CT SW
11/24/2008	LAZY ACRES	016923-000	JADEN LOHR	VICTORIA BENSON-LOHR	6816-B LAZY ST SW
11/21/2006	LAZY ACRES	021235-000	BOURLAND	LAUREN AND AARON	6745 FOSTER DR SW
5/28/2014	LAZY ACRES	021263-000	NEVILLE	AMANDA AND JONATHAN	6805 LAZY ST SW
4/28/2014	LAZY ACRES	022234-000	PODOWICZ	KOLE AND EMILY	6829 FOSTER DR SW
1/14/2015	LAZY ACRES	022309-000	BENSHOOF	TRISHIA	6932 FOSTER DR SW
12/18/2006	LAZY ACRES	022370-000	STARLINGS	JAKOB	2706 67TH CT SW
4/17/2014	LAZY ACRES	022588-000	O'NEIL	SANDRA	6813 LAZY ST SW
	LAZY ACRES	022838-000	NYGREN	CONRAD	2714 67TH CT SW
11/15/2006	LAZY ACRES	023276-000	ANDREA GERO	ANTHONY ROTAR AND	6904 LAZY ST SW
	LAZY ACRES	023324-000	COFFEY	KRISTIN AND RYAN	2904 CHILDRESS CT SW
11/16/2020	LAZY ACRES	023492-000	BOCK	VICTORIA	6816-F LAZY ST SW
1/11/2021	LAZY ACRES	023579-000	HABERLAND	TRENTON	6919 FOSTER DR SW
6/3/2021	LAZY ACRES	025663-000	CLAUDIO	ANTHONY	6810 LAZY ST SW
6/24/2021	LAZY ACRES	025784-000	RICKLICK	DAN	2818 FOSTER CT SW
4/7/2022	LAZY ACRES	025796-000	TSCHURSIN	LUDMILA	6923 FOSTER DR SW
8/18/2021	LAZY ACRES	025911-000	RODEEN	JENNIFER	2709 68TH CT SW
8/27/2021	LAZY ACRES	025984-000	KENNEDY	LYNN	6748 FOSTER DR SW
3/22/2022	LAZY ACRES	026008-000	ROSS JOHNSTON	RACHEL WINSTEDT AND	6943 FOSTER DR SW
7/29/2021	LAZY ACRES	026112-000	GRANT	PAM AND PAUL	6816-E LAZY ST SW
11/15/2021	LAZY ACRES	026233-000	DYAMI QUILICI	ALISON BROWN AND	6908 FOSTER DR SW
1/21/2022	LAZY ACRES	026396-000	NATASHA SPECK	TANNER GIBSON AND	6703 LAZY ST SW
4/21/2021	LAZY ACRES	026443-000	BEATTIE	HONOUR	6816-D LAZY ST SW

9/2/2022	LAZY ACRES	026953-000	THOEMMSS	JENNIFER	6927-B LIVELY ST SW
9/26/2022	LAZY ACRES	026961-000	MORAN	JAMES	2708 68TH CT SW

1.5 *Source Water Protection Program*

Table 1.5.1
Source Water Protection Program

Identify completed steps and target completion dates for remaining tasks.

Completed	Task	Completion Date
☒	Step 1: Complete a susceptibility assessment form for each source and submit to us.	10/2000
☒	Step 2: Create a map showing all sources, sanitary control areas, and source water protection areas. Include the 6-month, and 1-, 5-, and 10-year time of travel zones. Attach a copy.	10/2000
☒	Step 3: Secure control of your sanitary control area or watershed control area. Attach a copy of your legal documentation.	1/1991
☒	Step 4: Conduct survey to identify contaminant sources in your source water protection area and develop a contaminant inventory list. Attach a copy.	10/2022
☒	Step 5: Send letters to landowners and facility operators in your inventory area, regulatory agencies, local governments with land use decision authority, and emergency responders. Attach a sample copy of each letter.	10/2022
☒	Step 6: Develop a contingency plan to provide an alternate source of potable water as part of your emergency response plan.	Section 1.6
☒	Continuous: Update contaminant inventory list every two years and resend notification letters as needed.	Ongoing

Susceptibility assessments for each source may be found in section 4.4. A review of time of travel mapping was conducted in October 2022. Annual quantities pumped are the same or reduced since the original assessment, therefore previously identified time of travel areas are still valid. No new potential sources of contamination were found via site review or Washington State Ecologies' mapping of active and inactive potential contaminate sites. Previously identified potential sources of contamination are population density of greater than 1 house per acre and residences commonly having septic tanks**.**

Renewed notification of source contribution areas have been mailed to state and local agencies and to property owners. See Section 4.4 for sample letters and a list of property owner addresses notifications have been sent to.

Figure 2-2: Time of Travel and Map

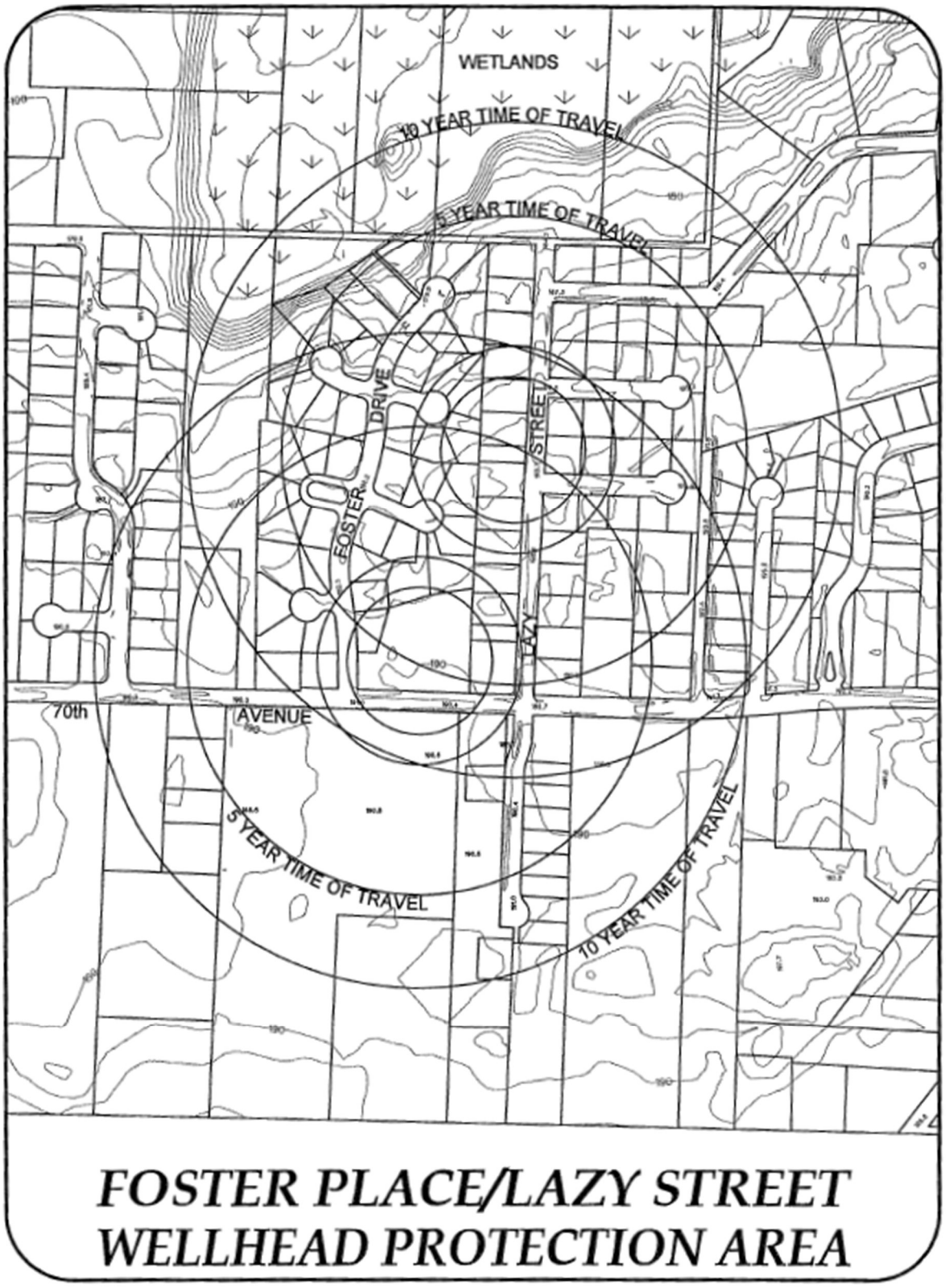
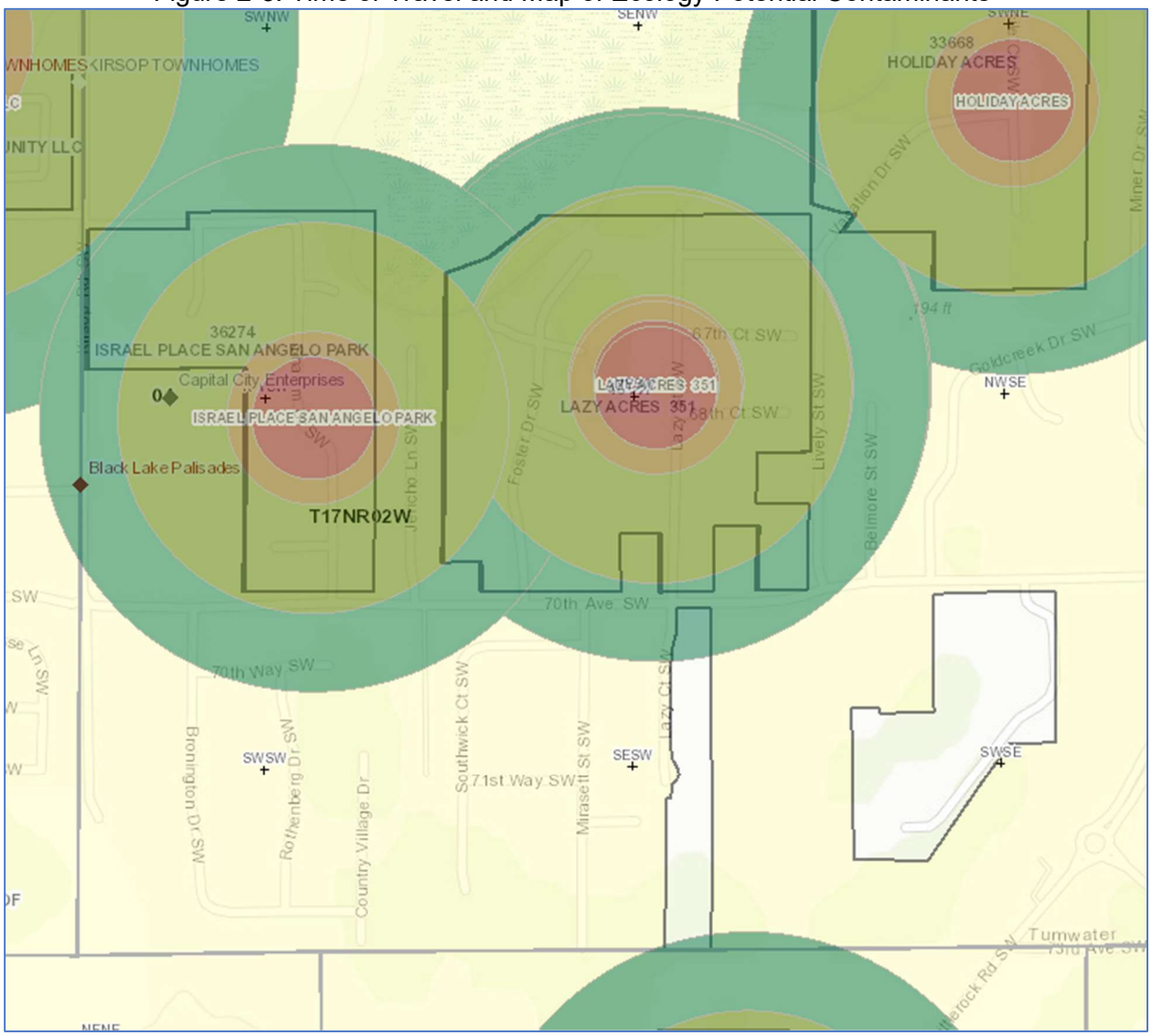


Figure 2-3: Time of Travel and Map of Ecology Potential Contaminants



1.6 *Emergency Response Plan*

Table 1.6.1
Emergency Response Plan

Section 1 – System Information
Document basic system information. This should be readily available to system personnel, local emergency responders, repair contractors, and us.

Basic description and location of system facilities	The Lazy Acres water system is located in Tumwater Washington and currently serves 94 single family residential connections and is approved for 97 residential connections. The system is located about 1 mile west of I-5 off of exit 101. The system is supplied by a three wells which pump directly to distribution. The system is not currently treated, though future treatment for PFAS is under development. The distribution system is comprised of approximately 1000 feet of 4-inch, 1200 feet of 2-inch, and 2600 feet of 2-inch pvc pipe. Installation dates from around 1970.	
Population served and number of service connections	People: 267	Connections: 94

Section 2 – Chain of Command
Document lines of authority and responsibility.

See Part A WSP, Appendix P.

Section 3 – Emergency Reference List
List important parties to contact.

See Part A WSP, Appendix P.

Section 4 – Emergency Notification

Identify how you will notify customers.

The system notifies its customers as follows: Check all that apply.	**How does the system provide customers with system contact information? *Check all that apply*.**
☒ Phone calls. (call lists in Springbrook database) ☐ Media release ☒ Door to door ☒ Other (Call them All system)	☒ Billing ☒ Newsletter ☒ Other (Website)

Emergency Notification (Priority customers)

If you have priority customers or serve vulnerable populations, maintain a list of these customers so you can notify them first. You should review and update this list annually.

Does the system serve priority customers? ☐ Yes ☒ No

Thurston PUD maintains a list of all customer phone and email contacts and is able to send automated notifications to all customers of the Lazy Acres water system. Thurston PUD also maintains a detailed and regularly updated website at Official Site of Thurston PUD and sends out monthly newsleters and other communications.

Section 5 – Response Actions for Specific Events

Identify action to take in the following events. You may want to refer to your facilities map (Section 1.3) to help determine the effects of possible events and the best response action.

See Part A WSP, Appendix P.

Section 6 –Alternative Water Supplies

Identify alternative water supplies that may be available if your supply becomes unexpectedly disrupted or contaminated. Alternative supplies can include emergency sources and emergency interties. They can also include the temporary use of bottled water or tanker trucks.

Note: You must obtain our approval before putting any emergency source or alternative supply of water into service. Requirements for using and maintaining emergency drinking water are in ***Emergency drinking water sources*** **(331-317)**.

Emergency sources
List available emergency sources and existing emergency interties.

Emergency source name	**WFI source number**	**Maintained in operable condition?**	**Availability** *How much water can be produced each day, how soon can it begin?*	**Is the water safe for drinking?**
Lazy #3 (AHF065)	S03	Yes, though Physically and electrically disconnected	More than MDD	Yes
Foster -old well	S05	Yes, though Physically and electrically disconnected	More than MDD	Yes

Short-term alternative supplies
List bottled water suppliers or tanker trucks that may be able to deliver bulk water in your area.

	Vendor or supplier	**Phone number**	**Availability** *How much water can be delivered each day, how soon can it begin?*	**Is the water safe for drinking?**
Emergency Bulk Potable Water	Water Buffalo Inc.	(253) 863-8883	4,000 gallon tanker truck is available 24/7	Yes

Long-term potential alternative supplies
List any potential interties with an adjacent water system. Do not include existing interties.

Local Water systems	**Approximately how far away is this water system?**	**Feasibility of connecting?**	**Has any contact been made with this system?**
City of Tumwater	~100 feet	Yes	No
Israel Place San Angelo Park	~600 feet	Possibly	No
Holiday Acres	~250 feet	Possibly	No

Lazy Acres has significant source redundancy, with three main wells and two additional emergency wells at two separate sites. It is highly unlikely that all wells would be unavailable concurrently. Water use restriction or temporary storage could be implemented as necessary if one or more wells were offline. See Part A WSP, Appendix Q for the Water Shortage Response Plan.

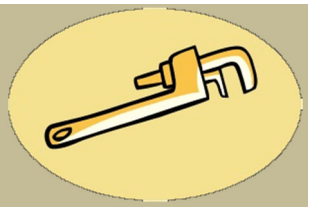
1.7 *Next Steps to Improve Managerial Capacity*

List the follow-up action(s) you committed to take in previous sections. Include any estimated costs in the future expenses portion of your budget.

Table 1.7.1
Next Steps to Improve Managerial Capacity

Item to address	Responsible party	Target start date	Target completion date	Estimated cost
Pursue emergency intertie with City of Tumwater	TPUD	January 2023	January 2024	$10,000

Chapter 2 **Technical Capacity**



2.1 *Ownership and Operations*

The water system is owned and operated by Thurston PUD. See Part A WSP section 1.1 for a description of ownership and management, and Section 5.1 and 5.2 for a description of water system management and staff certifications.

2.2 *Operations and Maintenance Program*

See Part A WSP Section 5.0 and Appendixes M and N for Thurston PUD's Operation and Maintenance Program and Standard Operating and Maintenance procedures.

2.3 *Water Quality Monitoring Program*

Table 2.3.1
Water Quality Monitoring Program

Completed	Task	Completion Date
☒	Step 1: Attach a copy of your WQMS. See Section 4.5	October 2022
☒	Step 2: Transfer testing dates into your O&M program and into your specific water quality monitoring programs.	Annually in March/April
☒	Step 3: Transfer testing costs into your budget.	Annually in August/September
☒	Step 4: Attach a copy of your coliform monitoring plan and site-sampling map.	January 2019
☒	Step 5: Revise testing schedule if monitoring requirements change.	Ongoing

**WQMS is available on DOH website in early March*

Further action

- Do you keep copies of sampling results for at least 10 years?
  ☒ Yes. ☐ No.

The Coliform Monitoring Plan can be found in Sections 4.6. Lazy Acres has had no primary or secondary MCL exceedances in the past 10 years. Annual water quality summaries are included in the Consumer Confidence Report sent to all customers, and all water quality test records may be found on the Washington State Office of Drinking Water Sentry site at https://fortress.wa.gov/doh/eh/portal/odw/si/FindWaterSystem.aspx

2.4 *Component Inventory and Assessment*

See Thurston PUD Asset Management Program, found in Appendix K of the Part A WSP. A summary of assets and anticipated replacement dates and cost for Lazy Acres is found in Chapter 3.2 of this plan.

2.5 *Water Rights Self-Assessment*

Water Right Number	Status	Priority Date	Source	Maximum Instantaneous Withdrawal (QI)	Maximum Annual Withdrawal (QA)
G2-21039	Certificate	May 17, 1973	S01, S02, S03	150 gpm	43.3 ac-ft/year
G2-27951	Certificate	August 13, 1986	S04, S05	56 gpm (supplemental)	43.3 ac-ft/year (supplemental)

Instantaneous Withdrawal
The water right certificates establish a limit to not exceed 150 GPM, continuously, for community domestic supply.

Annual Withdrawal
The water right certificates allow for the annual withdrawal of 43.3 acre-feet per year for the plats of Lazy Acres and Foster Place.

Water Right Self-Assessment Assumptions
The system is currently approved for 97 connections. The current water right projection was based on the current 94 active connections. The 10-year projection was based on the assumption that there will be 96 active connections, and the 20- year projection was based on the assumption that the system will be fully built-out at 97 connections.

Table 2.5.1
Water Rights Self Assessment

Water Right Permit, Certificate, or Claim # *If water right is interruptible, identify limitation in yellow section below	WFI Source # If a source has multiple water rights, list each water right on separate line	Existing Water Rights Qi= Instantaneous Flow Rate Allowed (GPM or CFS) Qa= Annual Volume Allowed (Acre-Feet/Year) This includes wholesale water sold				Current Source Production – Most Recent Calendar Year Qi = Max Instantaneous Flow Rate Withdrawn (GPM or CFS) Qa = Annual Volume Withdrawn (Acre-Feet/Year) This includes wholesale water sold				10-Year Forecasted Source Production (determined from WSP) This includes wholesale water sold				20-Year Forecasted Source Production (determined from WSP) This includes wholesale water sold			
		Primary Qi Maximum Rate Allowed	Non-Additive Qi Maximum Rate Allowed	Primary Qa Maximum Volume Allowed	Non-Additive Qa Maximum Volume Allowed	Total Qi Maximum Instantaneous Flow Rate Withdrawn	Current Excess or (Deficiency) Qi	Total Qa Maximum Annual Volume Withdrawn	Current Excess or (Deficiency) Qa	Total Qi Maximum Instantaneous Flow Rate in 10 Years	10-Year Forecasted Excess or (Deficiency) Qi	Total Qa Maximum Annual Volume in 10 Years	10-Year Forecasted Excess or (Deficiency) Qa	Total Qi Maximum Instantaneous Flow Rate in 20 Years	20-Year Forecasted Excess or (Deficiency) Qi	Total Qa Maximum Annual Volume in 20 Years	20-Year Forecasted Excess or (Deficiency) Qa
1 G2-21039C	S01, S02, S03	150 gpm		43.3 ac-ft/yr		88 gpm	62 gpm	9.94 ac-ft/year	26.47 ac-ft/yr	88 gpm	62 gpm	10.15 ac-ft/yr	26.11 ac-ft/yr	88 gpm	62 gpm	10.26 ac-ft/yr	25.93 ac-ft/yr
2 G2-27951C*	S04, S05		56 gpm		43.3 ac-ft/yr	56 gpm	0 gpm	6.89 ac-ft/year		56 gpm	0 gpm	7.04		56 gpm	0 gpm	7.11 ac-ft/yr	
3																	
	TOTALS =	150 gpm		43.3 ac-ft/yr		149 gpm	1 gpm	16.83 ac-f/yr	26.47 ac-ft/yr	149 gpm	1 gpm	17.19 ac-ft/yr	26.11 ac-ft/yr	149 gpm	1 gpm	17.37 ac-ft/yr	25.93 ac-ft/yr
Column Identifiers for Calculations:		A		B		C	=A-C	D	=B-D	E	= A-E	F	=B-F	G	=A-G	H	=B-H

*Supplemental to G2-21039C

PENDING WATER RIGHT APPLICATIONS: Identify any water right applications that have been submitted to Ecology.

Application Number	New or Change Application?	Date Submitted	Quantities Requested			
			Primary Qi	Non-Additive Qi	Primary Qa	Non-Additive Qa

INTERTIES: Systems receiving wholesale water complete this section. Wholesaling systems must include water sold through intertie in the current and forecasted source production columns above.

Name of Wholesaling System Providing Water	Quantities Allowed In Contract		Expiration Date of Contract	Currently Purchased Current quantity purchased through intertie				10-Year Forecasted Purchase Forecasted quantity purchased through intertie				20-Year Forecasted Purchase Forecasted quantity purchased through intertie			
	Maximum Qi Instantaneous Flow Rate	Maximum Qa Annual Volume		Maximum Qi Instantaneous Flow Rate	Current Excess or (Deficiency) Qi	Maximum Qa Annual Volume	Current Excess or (Deficiency) Qa	Maximum Qi 10-Year Forecast	Future Excess or (Deficiency) Qi	Maximum Qa 10-Year Forecast	Future Excess or (Deficiency) Qa	Maximum Qi 20-Year Forecast	Future Excess or (Deficiency) Qi	Maximum Qa 20-Year Forecast	Future Excess or (Deficiency) Qa
1															
2															
3															
TOTALS =															
Column Identifiers for Calculations:	A	B		C	=A-C	D	=B-D	E	=A-E	F	=B-F	G	=A-G	H	=B-H

INTERRUPTIBLE WATER RIGHTS: Identify limitations on any water rights listed above that are interruptible.

Water Right #	Conditions of Interruption	Time Period of Interruption
1		
2		

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

CERTIFICATE OF WATER RIGHT

☐ *Surface Water* (Issued in accordance with the provisions of Chapter 90.03 Laws of Washington for 1917 and amendments thereto, and the rules and regulations of the Department of Ecology)

☒ *Ground Water* (Issued in accordance with the provisions of Chapter 263 Laws of Washington for 1945, and amendments thereto, and the rules and regulations of the Department of Ecology)

CERTIFICATE NUMBER	PERMIT NUMBER	APPLICATION NUMBER	PRIORITY DATE
G2-21039C	G2-21039P	G2-21039	May 17, 1973

NAME
WESLEY S. Anderson

ADDRESS (STREET)	CITY	STATE	ZIP CODE
Rt 18 Box 191R	Olympia	Washington	98501

This is to certify that the herein named applicant has made proof to the satisfaction of the Department of Ecology of a right to the use of the public waters of the State of Washington as herein defined, and under and specifically subject to the provisions contained in the Permit issued by the Department of Ecology, and that said right to the use of said waters has been perfected in accordance with the laws of the State of Washington, and is hereby confirmed by the Department of Ecology and entered of record as shown.

PUBLIC WATER TO BE APPROPRIATED

SOURCE
3 wells

TRIBUTARY OF (IF SURFACE WATERS)

MAXIMUM CUBIC FEET PER SECOND	MAXIMUM GALLONS PER MINUTE	MAXIMUM ACRE-FEET PER YEAR
	150	43.3

QUANTITY, TYPE OF USE, PERIOD OF USE		
43.8 acre-feet per year	community domestic supply	continuously

LOCATION OF DIVERSION/WITHDRAWAL

APPROXIMATE LOCATION OF DIVERSION WITHDRAWAL
Well No. 1: 970 feet west and 1300 feet south;
Well No. 2: 550 feet west and 600 feet south;
Well No. 3: 525 feet west and 600 feet south;

ALL from the center of Sec. 4

LOCATED WITHIN (SMALLEST LEGAL SUBDIVISION)	SECTION	TOWNSHIP N.	RANGE (E. OR W.) W.M.	W.R.I.A.	COUNTY
NE¼SW¼	4	17	2 W	23	Thurston

RECORDED PLATTED PROPERTY

LOT	LOCK	OF (GIVE NAME OF PLAT OR ADDITION)

LEGAL DESCRIPTION OF PROPERTY WATER TO BE USED ON

The plat of Lazy Acres, and that part of the SW¼, Sec. 4, T. 17 N., R. 2 W.W.M., described as follows:
beginning at a point 1393.3 feet, more or less, south and west 1348 feet from the northeast corner of the SW¼of said Sec. 4, on the north boundary of the Israel County Road; thence north 1°05' east 1393.3 feet, more or less, to the north line of said SW¼; thence north 89° 20'38" east along said line 678.33 feet, more or less, to the point 670 feet west of the northeast corner of said SW¼; thence southerly 1393.3 feet, more or less, to the north line of Israel Road; thence westerly along the north line of said road 678 feet, more or less, to the point of beginning;

EXCEPT the south 120 feet of the west 140 feet thereof.

DESCRIPTION OF PROPOSED WORKS

Well No. 1 - 6" x 55'
3 HP electric turbine 50 gallons per minute
Well No. 2 - 6" x 56'
5 HP Berkley 60 gallons per minute
Well No. 3 - 6" x 54'
3 HP Berkley Turbine 50 gallons per minute

DEVELOPMENT SCHEDULE

BEGINNING DATE	COMPLETION DATE	DATE COMPLETE APPLICATION OF WATER TO BE MADE
Started	November 1, 1974	November 1, 1975

PROVISIONS AND RECOMMENDATIONS

Recorded Objection:

An objection to the approval of this application was received in this office from Mr. Thomas L. Mugartegui on November 8, 1973. The basis of Mr. Mugartegui's objection is that the drilling of three new wells would eventually lead to the depletion of the ground water in this area.

Mr. Mugartegui has Ground Water Application No. G2-20831 with a priority date of March 6, 1973. Mr. Mugartegui's application has been recommended for approval for 30 gallons per minute and 11 acre-feet per year for domestic supply and the irrigation of 5 acres.

Field Investigation

A field investigation of this application was conducted on November 2, 1973. Wells number 2 and 3 are complete and have been for a number of years. Well No. 1 has not yet been drilled and it will be approximately 500 feet northeast of Mr. Mugartegui's well.

Since there has been no adverse effect on the ground water in this area in the past and only one of applicant's wells has not been in use before, we do not feel on the basis of available data, that adverse interference will occur.

However, the applicant is reminded that all permits issued through this office are granted subject to existing rights; therefore, if through development and use of the waters in question adverse interference with existing rights does occur, regulation of withdrawal and/or modification of the wells shall be ordered, as necessary.

Conclusion and Recommendations

There is water available for appropriation and the proposed project is feasible and a beneficial use of water.

It is recommended that this application be approved for 150 gallons per minute and 43.3 acre-feet per year for community domestic supply. The annual quantity is based on 450 gallons per day per lot (86 lots) or a factor of 0.504 x 86 equaling 43.3 acre-feet per year.

Any permit issued under this application will be subject to the following provisions:

"The installation of an access port as described in attached Ground Water Bulletin No. 1 shall be required prior to issuance of final certificate of water right. The applicant may, for his own convenience, wish to install an airline and gage in addition to the access port."

Owing to the proximity of neighboring wells, the applicant is reminded of his responsibility toward same and advised that he may be required to regulate his withdrawal and pumping rate if existing rights are injuriously affected.

Use of the waters to be appropriated under this application will be for a public water supply. State Board of Health rules require every owner of a public water supply to obtain written approval from the Assistant Secretary, Health Services Division prior to any new construction or alterations of a public water supply.

Applicant is advised that notice of proof of appropriation of water (under which final certificate of water right issues) should not be filed until the permanent diversion facilities have been installed together with a mainline system capable of delivering the recommended quantity of water to an existing or proposed distribution system within the area to be served.

Additionally, the permit when issued shall carry the following provision: "Nothing in this permit shall be construed as excusing the permittee from compliance with any applicable federal, state, or local statutes, ordinances, or regulations including those administered by local agencies under the Shoreline Management Act of 1971."

Signed at Olympia, Washington,
this 7th day of December, 1973.

Gary E. Hanson

GARY E. HANSON, Resources Management
Department of Ecology

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

CERTIFICATE OF WATER RIGHT

☐ Surface Water (issued in accordance with the provisions of Chapter 117, Laws of Washington for 1917, and amendments thereto, and the rules and regulations of the Department of Ecology.)

☒ Ground Water (issued in accordance with the provisions of Chapter 263, Laws of Washington for 1945, and amendments thereto, and the rules and regulations of the Department of Ecology.)

PRIORITY DATE	APPLICATION NUMBER	PERMIT NUMBER	CERTIFICATE NUMBER
August 13, 1986	G2-27951	G2-27951 P	G2-27951 C

NAME
Phyllis Anderson

ADDRESS (STREET)	(CITY)	(STATE)	(ZIP CODE)
2719 70th SW	Olympia	Washington	98502-7106

This is to certify that the herein named applicant has made proof to the satisfaction of the Department of Ecology of a right to the use of the public waters of the State of Washington as herein defined, and under and specifically subject to the provisions contained in the Permit issued by the Department of Ecology, and that said right to the use of said waters has been perfected in accordance with the laws of the State of Washington, and is hereby confirmed by the Department of Ecology and entered of record as shown, but is limited to an amount actually beneficially used.

PUBLIC WATERS TO BE APPROPRIATED

SOURCE
2 Wells

TRIBUTARY OF (IF SURFACE WATERS)

MAXIMUM CUBIC FEET PER SECOND	MAXIMUM GALLONS PER MINUTE	MAXIMUM ACRE-FEET PER YEAR
	56	(Supplemental)

QUANTITY, TYPE OF USE, PERIOD OF USE		
Supplemental supply	Community domestic	Year-round, as needed

(Total withdrawal under G2-21039C and G2-27951 shall not exceed 43.3 acre-feet per year)

LOCATION OF DIVERSION/WITHDRAWAL

APPROXIMATE LOCATION OF DIVERSION–WITHDRAWAL
Well #1 - 1100 feet south and 850 feet west of center of Section 4.
Well #2 - 1200 feet south and 1050 feet west of center of Section 4.

LOCATED WITHIN (SMALLEST LEGAL SUBDIVISION)	SECTION	TOWNSHIP N.	RANGE, (E. OR W.) W.M.	W.R.I.A.	COUNTY
NE¼SW¼	4	17	2W	23	Thurston

RECORDED PLATTED PROPERTY

LOT	BLOCK	OF (NAME OF PLAT OR ADDITION)

LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS TO BE USED

The plat of Lazy Acres, and that part of the southwest quarter of Section 4, T. 17 N., R. 2 W.W.M., described as follows:
Beginning at a point 1393.3 feet, more or less, south and west 1348 feet from the northeast corner of the southwest quarter of said Section 4, on the north boundary of the Israel County Road; thence north 1°05' east 1393.3 feet, more or less, to the north line of said southwest quarter; thence north 89°20'38" east along said line 678.33 feet, more or less, to the point 670 feet west of the northeast corner of said southwest quarter; thence southerly 1393.3 feet, more or less, to the north line of Israel Road; thence westerly along the north line of said road 678 feet, more or less, to the point of beginning;

EXCEPT the south 120 feet of the west 140 feet thereof.

PROVISIONS

An approved metering device shall be installed and maintained in accordance with RCW 90.03.360, WAC 508-64-020 through -040.

The instantaneous quantity appropriated by this document is considered to be a portion of the amount reserved by the adoption of Chapter 173-591, the Reservation of Future Public Water Supply For Thurston County. The priority date of this certificate is August 13, 1986.

The Water Resources Act of 1971 specifies certain criteria regarding utilization and management of the waters of the state in the best public interest. Use of water may be subject to regulation at certain times, based on the necessity to maintain water quantities sufficient for preservation of the natural environment.

The right to the use of the water aforesaid hereby confirmed is restricted to the lands or place of use herein described, except as provided in RCW 90.03.380, 90.03.390, and 90.44.020.

This certificate of water right is specifically subject to relinquishment for nonuse of water as provided in RCW 90.14.180.

Given under my hand and the seal of this office at Olympia, Washington,

this 29 *day of* May, *1992*.

Chuck Clark, Director
Department of Ecology

ENGINEERING DATA
OK GD

by Gale Blomstrom

FOR COUNTY USE ONLY

DESCRIPTION OF PROPOSED WORKS

Two wells, 6" x 70' and 6" x 40', 697 gallon pressurized storage tank, distribution system.

DEVELOPMENT SCHEDULE

BEGIN PROJECT BY THIS DATE:	COMPLETE PROJECT BY THIS DATE:	WATER PUT TO FULL USE BY THIS DATE:
Started	Completed	In use

REPORT

BACKGROUND:

On November 29, 1990, Phyllis Anderson applied for a permit under the provisions of Chapters 90.03 and 90.44 Revised Code of Washington (RCW), to appropriate public ground water from two wells. A withdrawal rate of 56 gallons per minute (gpm) was requested for community domestic supply of 82 homes. The application was accepted for processing and assigned application number G2-27951. The priority date of this application is August 13, 1986, as set forth in Chapter 173-591 WAC, Reservation of Future Public Water Supply for Thurston County.

A legal notice of the proposed appropriation was published in "The Olympian" on January 11 and 18, 1991. No objections were received as a result of this public notice.

Based on the following information, I recommend issuance of a permit.

INVESTIGATION:

In consideration of this application, I conducted a field investigation with Vicki Windust and Marie Peter, of this office, on January 24, 1992. The applicant was not present at the time of the site visit. Other investigations included a review of pertinent state records including recorded water rights and well drilling logs, conversations with Phyllis Anderson and review of the information submitted with the application. For additional information I contacted Reid Kincy of Kincy Water Systems, who is familiar with the Anderson system.

The project site, known as Foster Place, is located about one half mile from Tumwater, Washington in Thurston County. The site is already established as a residential subdivision.

The wells are located in an open play field off of 70th Avenue. The first well was drilled in 1973 to a depth of 41 feet and the second was constructed in 1989 at a depth of 70 feet. Pump tests, performed at the time of drilling, indicate that the wells are capable of yielding 70 and 60 gallons per minute respectively. Each well has a submersible pump capable of producing 56 gallons per minute. System design plans submitted by the applicant show a distribution system including a 697 gallon pressurized storage tank. The tank, electrical and distribution system are housed in a utility building/bus shed located near the street.

DISCUSSION:

The Andersons have existing ground water rights under certificate number G2-21039. Water is withdrawn from three wells located on Lazy Street. This certificate authorizes withdrawal of 150 gallons per minute; 43.3 acre-feet/year, to serve an area that encompasses both the adjacent Lazy Acres and Foster Place subdivisions with water. A conversation with Phyllis Anderson indicated that the Foster Place wells included under this new application would be used as back-ups for the Lazy Street system. The wells at Foster Place are pumped predominately during times of peak summer demand.

There are 12 recorded wells, within a half mile radius of the Anderson well, on record with the Department of Ecology. Most of these wells are shallow and are drilled to less than 100 feet in depth. 9 ground water certificates, including the applicants own, have been issued for the same vicinity. Owing to the proximity of neighboring wells, the applicant is advised that ground water withdrawals may be regulated in the event that senior rights are injuriously affected.

The water requirements for a community domestic system of this nature should not exceed an average daily use of 450 gallons per residence per day. For the 82 units to be served by this system, this amounts to 36,900 gallons per day; 41 acre feet per year. Because existing ground water rights allocate sufficient water for the community, this permit (G2-27951), shall be issued supplemental to G2-21039. The combined withdrawal from all five wells,in any pumping combination, shall not exceed 150 gallons per minute and shall not exceed 43.3 acre-feet per year.

CONCLUSIONS:

In accordance with Chapter 90.44 RCW, I find there is water available for appropriation from the source in question, and that the appropriation is for a beneficial use and will not impair existing rights or be detrimental to the public.

RECOMMENDATION:

I recommend approval of this application and issuance of a permit to allow appropriation of a total of 56 gpm from these two wells for back-up community domestic supply of 82 homes. Combined with the three wells covered by ground water certificate G2-27951, the total rate of withdrawal shall not exceed 150 gpm. The total amount of water withdrawn shall not exceed 43.3 acre-feet per year. The period of use shall be year round, as needed.

The permit shall be subject to existing rights and the following provisions.

Installation and maintenance of an access port as described in Ground Water Bulletin No. 1 is required. An air line and gauge may be installed in addition to the access port.

The applicant is advised that notice of proof of appropriation of water (under which the final certificate of water right is issued) should not be filed until the permanent diversion facilities have been installed, together with a mainline system capable of delivering the recommended quantity of water to an existing or proposed distribution system within the area to be served, and the system is currently in use.

The use of the waters to be appropriated under this application will be for a public water supply. The State Board of Health rules require every owner of a public water supply to obtain written approval from the Office of Water Supply, Department of Health, Mail Stop LD-11, Building 3, Olympia, Washington 98504, prior to any new construction or alterations of a public water supply.

An approved metering device shall be installed and maintained in accordance with RCW 90.03.360, WAC 508-64-020 through -040 (installation, operation, and maintenance requirements are attached).

The instantaneous quantity appropriated by this document is considered to be a portion of the amount reserved by the adoption of Chapter 173-591, the Reservation of Future Public Water Supply For Thurston County. The priority date of this permit is August 13, 1986.

The Water Resources Act of 1971 specifies certain criteria regarding utilization and management of the waters of the state in the best public interest. Favorable consideration of this application has been based on sufficient waters available, at least during portions of the year. However, it is pointed out to the applicant that this use of water may be subject to regulation at certain times, based on the necessity to maintain water quantities sufficient for preservation of the natural environment.

REPORTED BY: Pam Mullie DATE: February 28, 1992

The statutory permit fee for this application is $20.00.

2.6 *Water Production*

See discussion and metering records in Section 2.7, which include both water production and consumption.

2.7 *Current Water Consumption*

Source meter records from 2018 through 2022 are provided in the attachment to show water production data. From the 5-years of source meter data, an average daily demand (ADD) of 160 gpd/ERU was found. The average daily usage of the highest use month (317 gpd/ERU in August of 2021) was multiplied by a peaking factor of 1.65 and a 1.1 safety factor to obtain a maximum daily demand (MDD) of 575 gpd/ERU. Peak hourly demand (PHD) of 125 gpm (for a buildout of 97 connections) was calculated using Equation 5-1 from water System Design Manual (DOH 331-123). Distribution system leakage (DSL) has averaged 18% over the past 12 months, and 11% over the past 3 years. Average annual DSL is 1,075,575 gallons.

Name	# of active water svcs	BILL DATE	MONTHLY SOLD GALLONS	MONTHLY PUMPED GALLONS	LOSS IN GAL (TP-AC)	GPM Leak Loss (LOSS GALLONS/43200)	MONTHLY DSL % (TP-(AC)/TP)	MONTHLY GAL PER DAY PER CONN ((SOLD/Act Svcs)/30)
Lazy Acres	93	January-18	344,821	231,401	-113,419	-2.63	-49%	124
Lazy Acres	93	February-18	322,066	206,201	-115,865	-2.68	-56%	115
Lazy Acres	93	March-18	286,521	196,904	-89,618	-2.07	-46%	103
Lazy Acres	93	April-18	318,461	214,900	-103,561	-2.40	-48%	114
Lazy Acres	93	May-18	371,479	255,898	-115,581	-2.68	-45%	133
Lazy Acres	93	June-18	531,035	358,599	-172,436	-3.99	-48%	190
Lazy Acres	93	July-18	501,676	344,903	-156,773	-3.63	-45%	180
Lazy Acres	93	August-18	825,336	517,803	-307,533	-7.12	-59%	296
Lazy Acres	93	September-18	815,305	536,600	-278,705	-6.45	-52%	292
Lazy Acres	93	October-18	353,871	239,801	-114,070	-2.64	-48%	127
Lazy Acres	93	November-18	335,209	229,703	-105,505	-2.44	-46%	120
Lazy Acres	93	December-18	331,626	228,798	-102,828	-2.38	-45%	119
Lazy Acres	93	Jan-19	307,473	212,400	-95,073	-2.20	-45%	107
Lazy Acres	93	Feb-19	334,102	240,436	-93,666	-2.17	-39%	128
Lazy Acres	93	Mar-19	309,096	308,295	-801	-0.02	0%	107
Lazy Acres	93	Apr-19	294,682	447,901	153,219	3.55	34%	106
Lazy Acres	93	May-19	317,511	345,606	28,095	0.65	8%	110
Lazy Acres	93	Jun-19	552,615	575,324	22,709	0.53	4%	198
Lazy Acres	93	Jul-19	670,006	686,246	16,240	0.38	2%	232
Lazy Acres	93	Aug-19	671,315	687,173	15,858	0.37	2%	233
Lazy Acres	93	Sep-19	688,691	701,752	13,061	0.30	2%	247
Lazy Acres	93	Oct-19	357,716	382,364	24,648	0.57	6%	124
Lazy Acres	93	Nov-19	356,833	388,230	31,397	0.73	8%	128
Lazy Acres	93	Dec-19	307,727	321,462	13,735	0.32	4%	107
Lazy Acres	93	January-20	340,894	363,313	22,419	0.52	6%	118
Lazy Acres	93	February-20	351,388	387,747	36,359	0.84	9%	135
Lazy Acres	93	March-20	303,890	342,611	38,721	0.90	11%	105
Lazy Acres	93	April-20	381,128	388,004	6,876	0.16	2%	137
Lazy Acres	93	May-20	462,541	498,320	35,779	0.83	7%	160
Lazy Acres	93	June-20	416,614	438,850	22,236	0.51	5%	149
Lazy Acres	93	July-20	463,169	487,084	23,915	0.55	5%	161
Lazy Acres	93	August-20	834,499	865,300	30,801	0.71	4%	289
Lazy Acres	93	September-20	718,364	774,083	55,719	1.29	7%	257
Lazy Acres	93	October-20	570,402	596,583	26,181	0.61	4%	198
Lazy Acres	93	November-20	396,492	441,713	45,221	1.05	10%	142
Lazy Acres	93	December-20	348,194	387,728	39,534	0.92	10%	121

Lazy Acres	94	January-21	405,588	456,280	50,692	1.17	11%	139
Lazy Acres	94	February-21	338,612	369,727	31,115	0.72	8%	129
Lazy Acres	94	March-21	334,199	375,095	40,896	0.95	11%	115
Lazy Acres	94	April-21	383,881	422,014	38,133	0.88	9%	136
Lazy Acres	94	May-21	476,424	520,290	43,866	1.02	8%	163
Lazy Acres	94	June-21	428,993	471,804	42,811	0.99	9%	152
Lazy Acres	94	July-21	632,374	678,243	45,869	1.06	7%	217
Lazy Acres	94	August-21	923,817	967,764	43,947	1.02	5%	317
Lazy Acres	94	September-21	706,022	771,857	65,835	1.52	9%	250
Lazy Acres	94	October-21	477,538	501,185	23,647	0.55	5%	164
Lazy Acres	94	November-21	289,872	387,711	97,839	2.26	25%	103
Lazy Acres	94	December-21	359,938	414,342	54,404	1.26	13%	124
Lazy Acres	94	January-22	401,093	424,240	23,147	0.54	5%	138
Lazy Acres	94	February-22	275,780	394,420	118,640	2.75	30%	105
Lazy Acres	94	March-22	266,602	383,500	116,898	2.71	30%	91
Lazy Acres	94	April-22	362,511	505,835	143,324	3.32	28%	129
Lazy Acres	94	May-22	315,716	430,212	114,496	2.65	27%	108
Lazy Acres	94	June-22	386,925	507,443	120,518	2.79	24%	137
Lazy Acres	94	July-22	586,574	724,720	138,146	3.20	19%	201

2.8 *Future Water Consumption*

Table 2.8.1
Future Water Consumption

Line Number	Type of Information	Value
1	Record the number of full-time single-family homes you currently serve.	94 Connections
2	Summarize and record the volume of water (in gallons) all full-time single-family homes consumed in the past year. If you do not record service meter information and your customers are primarily single-family homes, you can estimate their consumptive use by dividing the total water produced and purchased (See Table 2-6) by the number of connections, and insert that value in Line 3 below. Also, insert "0" in line 7 below.	5,483,984 Gallons per year (averaged based on past 5 years)
3	Determine the average annual consumption per full-time single-family home by dividing the value in Line 2 by the value in Line 1.	58,340 Gallons per connection/per year
4	Determine the average daily demand (ADD) per existing single-family home by dividing the value in line 3 by 365.	260 gpd per single family home
5	Determine the number of new single-family homes you expect to serve in the future. Count the number of vacant lots in your service area that you expect to serve in the future. Do not count existing homes. Consult with your local land-use planning agency to find out whether the vacant lots can be subdivided if you do not know.	3 connections
6	Calculate the additional single-family residential annual consumption by multiplying the value in line 3 by the value in line 5.	175,020 Gallons per year
7	Summarize and record the volume of water (in gallons) consumed by all existing multi-family, commercial, industrial, and municipal customers.	0 Gallons per year
8	Forecast the additional annual consumption you expect to serve in the future from multi-family, commercial, industrial, and municipal customers. Do not include existing demands. Consult local land use plans for your area to see if these types of future uses are planned if you do not know.	0 Gallons per year
9	Summarize the total forecasted additional annual consumption by adding the values in Lines 6 + 8 together.	175,020 Gallons per year
10	Calculate the total forecasted annual consumption by adding together existing uses (Line 2 and Line 7), existing DSL (see Table 2-6), and your forecasted additional annual consumption (Line 9): Line 2 + Line 7 + DSL volume taken from Table 2-6 + Line 9	6,734,579 Gallons per year
11	Is your existing water right sufficient for the forecasted annual consumption? (Refer to the value in Line 10 and remember: an acre-foot is equal to 325,851 gallons).	☒ Yes or ☐ No

Line Number	Type of Information	Value
12	Calculate Maximum Daily Demand per ERU by Multiplying the average daily demand per ERU of the highest use recorded month by 1.65*1.1.	575 gpd/ERU
13	Forecast the maximum daily consumption by multiplying the value in Line 12 by the total number of existing plus future ERU.	55,814 Gallons per day
14	Convert the maximum daily consumption from Line 13 to a continuous flow rate in gpm per DOH 331-123 Equation 3-1:	125 Gallons per minute
15	Is your existing water right sufficient for the forecasted maximum daily consumption flow rate calculated in Line 14? (Compare the instantaneous flow allowed in your water right with the value in Line 14).	☒ Yes or ☐ No

Further action

- Check lines 10 and 14 against your water right annual volume and instantaneous withdrawal limits. Is it within allowed limits?

  ☒ Yes ☐ No ☐ Unsure.

  If no or unsure, include this issue in Section 2.10 (Next Steps) and contact the Department of Ecology. You can also contact your regional engineer to explore ways to reduce your average daily and maximum daily consumptive demand.

2.9 *Water Use Efficiency Program*

In 2003, the Washington State Legislature passed Engrossed Second Substitute House Bill 1338, known as the Municipal Water Law, to address increasing demand on the state's water resources. The law established that all municipal water suppliers must use water more efficiently in exchange for water right certainty and flexibility to help them meet future demand. The Legislature directed the Department of Health to oversee and enforce a WUE program to help support the collective goal of ensuring a safe and reliable drinking water supply. The WUE program seeks to support this goal in the following ways:

- Contribute to long-term water supply reliability and public health protection,
- Promote good stewardship of the state's water resources, and
- Ensure efficient operation and management of water systems.

This program became effective on January 22, 2007 and established certain responsibilities that water suppliers must fulfill. Fundamental elements include the following:

- Water use efficiency program
- Distribution leakage standard
- Goal-setting and performance reporting
- Metering requirements

Source Meters

All permanent sources are metered. Any additional sources developed in the future will be metered when installed.

Service Meters

The system is fully metered. Meters are read and billed monthly. The system billing software provides month by month total usage reports which are used for calculating distribution system leakage. All new services will be metered upon activation.

Distribution System Leakage

If a system's distribution system leakage exceeds 10 percent, the conservation program must also provide an implementation program that includes leak detection and repair, and other measures to reduce water loss. Lazy Acres distribution system leakage was historically 10% to 18%. Actual average leak loss is 1 to 2 gpm. Staff have training and equipment to respond to leak reports from customers generally within a few hours of the report. Significant discrepancies between service meter and source meter records are investigated. Given the relatively low rate of leakage, further improvement via leak detection may not be feasible at this time. Replacement of the entire distribution system (including service laterals) is tentatively planned for 2035 in the asset management plan, however if a significant increase in the rate of main brakes and leakage developed Thurston PUD would prioritize earlier distribution replacement as the primary solution.

Current Water Use Efficiency Program

The Thurston PUD Board of Commissioners recognizes that water is a valuable commodity and the wise and efficient use of water is a goal that is in the best interests of its constituents.

Water Use Efficiency Program Goals

State regulation (WAC 246-290-830) requires the governing body of the municipal water system to develop the water use efficiency goals through a public process. The current WUE goal was considered in a public meeting held on October 19, 2020. The current goal for years 2021 through 2030 is to reduce and/or maintain the annual average demand per connection, for all Group A systems, to no more than 250 gallons per day. The Lazy Acres water system is currently meeting this goal.

Water Use Efficiency Program Measures

As part of a water system plan, DOH regulations also require the implementation of a specified number of water use efficiency measures. WAC 246-290-810 identifies the minimum number of water use efficiency measures that must be evaluated based on system size. Thurston PUD has less than 9,999 connections

and therefore must evaluate or implement six supplementary water use efficiency measures in addition to the mandatory measures. Please see Part A WSP, chapter 3.4 for Water Use Efficiency Measures.

In addition to water efficiency measures identified in the Part A WSP, Thurston PUD currently offers customers the following efficiency related devices and incentives:

- Shower Timers -first come first serve basis
- Irrigation Timers -first come first serve basis
- High Efficiency toilet rebate ($50.00)

Reclaimed Water

Systems serving more than 1,000 connections are required to evaluate reclaimed water opportunities. The Lazy Acres system is comprised of properties that have private septic systems, and therefore would not be able to implement a sewer treatment plant for reclaimed water use. With fewer than 1,000 connections, Lazy Acres is not requred to further evaluate reclaimed water opportunities.

Consumer Education Program

Thurston PUD sends out seasonal water conservation tips to customers at least bi-annually within our monthly newsletter. Conservation is also included in our annual consumer confidence reports. Newsletters can be found online at http://www.thurstonpud.org/pud-news-newsletters.htm

Annual Reports

The annual report provided to DOH by July 1 must include:

•Total system production and system wide consumption
• Distribution system leakage in percentage and volume
• Goal description, schedule, and progress toward meeting goals

Thurston PUD submits the annual WUE report on DOH's SENTRY database system, https://fortress.wa.gov/doh/eh/portal/odw/si/Disclaimer.aspx?Page=FindWaterSystem.aspx, before July 1 every year and adds a copy of the report to the website at http://www.thurstonpud.org/water-systems-ccr-2017_copy(1).htm. Additionally, the District reports this information to each customer on the annual Consumer Confidence Reports (CCR), example included in the Part A Water System Plan, Appendix J . The CCR provides each individual water system the current goal, total water produced and what the average household used for that water system.

Water Rates

Please see Water System Plan Part A, Section 6-6 and 6-7 for discussion and evaluation of current and future rates. Please see Thurston PUD website for current rates and fees http://thurstonpud.org/our-rates.htm.

Demand Forecast

See Sections 2.7 and 2.8 for water use and demand forecasting.

Water Use Efficiency Savings

Thurston PUD has a strong history of promoting water use efficiency, and at Lazy Acres has been able to maintain average daily consumption of single-family homes at 160 gpd, which is below the statewide average. See WSP Part A section 3.8 for additional history of WUE Program success at Thurston PUD water systems.

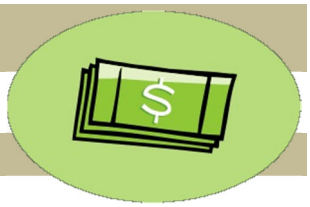
DSL Exemption for Water Systems under 500 Connections

Lazy Acres serves less than 500 connections and has a current 12-month leak loss of 18%, with an average DSL rate of 2 gpm. Thurston PUD aggressively monitors for and then finds and fixes leaks, however it is generally not feasible to find and fix the remaining small leaks that contribute to a 2 gpm leak rate. The distribution system was installed around the year 1970 and is planned for full replacement in 2035. Thurston PUD requests exemption to operate under a 20% leak loss limit until the distribution system is replaced per the asset management plan.

2.10 *Next Steps to Improve Technical Capacity*

Item to address	Responsible party	Target start date	Target completion date	Estimated cost
Install separate source meters and raw water sample taps for wells 1 and 2.	Thurston PUD	January 2023	January 2023	$2,500
Install water treatment plant at both well sites for PFAS removal	Thurston PUD	May 2023	May 2024	$1,000,000

Chapter 3 Financial Capacity



3.1 *Planned Improvements*

Thurston PUD has two planned improvements for Lazy Acres water system. The first, installation of a separate source meter and raw-water sample tap for Wells 1 and 2 is accommodated by Thurston PUD's current budget for incidental and unplanned minor capital expenses. The second, installation of PFAS treatement is a large expense and is not accommodated by existing budgeting.

In testing conducted earlier this year, Thurston PUD found that some PFAS compounds in source water at Lazy Acres exceeded the State Action Level (SAL).

Lazy Acres 351 Water System - Analytical Results			
PFAS Contaminant	**Detected Level (ppt) S01&S02***	**Detected Level (ppt) S04***	**State SAL (ppt)**
PFOA - perfluorooctanoic acid	Non-Detect	Non-Detect	10
PFOS - perfluorooctane sulfonic acid	20	15	15
PFHxS - perfluorohexane sulfonic acid	6.7	4.9	65
PFNA - perfluorononanoic acid	Non-Detect	Non-Detect	9
PFBS - perfluorobutane sulfonic acid	2.1	2.1	345

Exceedance of the SAL triggers additional monitoring, however there is by definition no regulatory requirement to reduce drinking water contaminants to below the SAL. WSDOH recommends all persons receiving water from sources exceeding the SAL minimize use of tap water for drinking and cooking, and that those who are pregnant, breastfeeding, or mixing infant formula utilize another source of water such as bottled water. Though treatement to reduce PFAS compounds to below the SAL is not a regulatory requirement, Thurston PUD is committed to ensuring the health and wellbeing of our customers and believes based on the above considerations that it is preferable to provide water to the public that is below the SAL.

Treatment of PFAS compounds at Lazy Acres is estimated to be quite costly and represents a significant unanticipated capital expense. Therefore, the Thurston PUD Board of Commissioners has directed that District Management purse funding options with the intent of installing a treatment system to reduce PFAS levels to below the SAL. Thurston PUD has retained an engineer for design and implementation of a PFAS treatment system; preliminary cost estimates from the engineer indicate installation and approval of a PFAS treatement system is likely to cost approximately $1,000,000. These cost estimates are currently being further refined by the engineer to allow for funding application by Thurston PUD.

3.2 *Asset Replacement*

See Thurston PUD Asset Management Program, found in Appendix K of the Part A WSP. A summary of assets and anticipated replacement dates and cost for Lazy Acres is found in the asset inventory and replacement form on the following page.

Capital Asset Management Plan Class A Systems

Lazy Acres 351

System Infrastructure		Criticality	Condition 2022	Aprox. Date Built	Pipe Footage or # of Items	Depreciation Period	Full Depreciation Date	Replacement Cost per Ft/ 2022	Total Replacement Cost 2022	Replacement Cost at end of Service Life
									2021	
Pump House										
Foster	size: 12x12	4	bad	1970	1	50	2022	$ 25,000	$ 25,000	$ 25,000
Roof		4	bad	1970	1	25	2022	$ 2,500	$ 2,500	$ 2,500
Building Electrical		1	fair	1970	1	30	2022	$ 3,000	$ 3,000	$ 3,000
Lazy	size: 12x12	4	good	2009	1	50	2059	$ 25,000	$ 25,000	$ 152,035
Roof		4	good	2009	1	25	2034	$ 2,500	$ 2,500	$ 4,490
Building Electrical		1	fair	2009	1	30	2039	$ 3,000	$ 3,000	$ 6,876
Well,										
S01 Lazy WW ABS204 6"		2	good	1970	55	75	2045	$ 100	$ 5,500	$ 16,893
Mobilization				1970	4	75	2045	$ 10,000	$ 40,000	$ 122,861
Well Approval				1970	4	75	2045	$ 18,000	$ 72,000	$ 221,150
S01 Lazy WW	size: 3hp n	2	good	2012	1	13	2025	$ 3,100	$ 3,100	$ 3,589
S02 Lazy AHF064 6"		2	good	1970	115	75	2045	$ 100	$ 11,500	$ 35,323
Mobilization				1970	4	75	2045	$ 10,000	$ 40,000	$ 122,861
Well Approval				1970	4	75	2045	$ 18,000	$ 72,000	$ 221,150
S02 Lazy	size: 3hp	2	fair	1970	1	30	2022	$ 3,100	$ 3,100	$ 3,100
S03 Lazy WW AHF065 6"	Emergency Well Only			1970	55	75	2045	$ 100	$ 5,500	$ 16,893
Mobilization				1970	4	75	2045	$ 10,000	$ 40,000	$ 122,861
Well Approval				1970	4	75	2045	$ 18,000	$ 72,000	$ 221,150
S03 Lazy WW	size: 3hp make: Goulds			2013	1	13	2026	$ 3,100	$ 3,100	$ 3,768
Source Meter	size: 2"	5	good	2013	1	25	2038	$ 1,500	$ 1,500	$ 3,274
S04 Foster 6"		2	fair	1970	68	75	2045	$ 100	$ 6,800	$ 20,886
Mobilization				1970	4	75	2045	$ 10,000	$ 40,000	$ 122,861

Well Approval				1970	4	75	2045	$ 18,000	$ 72,000	$ 221,150
S04 Foster	size: 3hp	2	fair	2009	1	13	2022	$ 3,100	$ 3,100	$ 3,100
Source Meter	size: 2"	5	good	2013	1	25	2038	$ 1,500	$ 1,500	$ 3,274
Booster Station										
hydropneumatic Lazy	size: 1500	5	good	1970	1	75	2045	$ 50,000	$ 50,000	$ 153,576
air compressor	White water	5	good	2022	1	10	2032	$ 1,300	$ 1,300	$ 2,118
hydropneumatic Foster	size: 750	5	good	1970	1	75	2045	$ 15,000	$ 15,000	$ 46,073
air compressor	White water	5	good	2022	1	10	2032	$ 1,300	$ 1,300	$ 2,118
Pump House Plumbing		5	fair	1970	2	50	2022	$ 1,500	$ 3,000	$ 3,000
Water Mains										
2" 2600'	# of feet	1	good	1970	2600	65	2035	$ 50	$ 130,000	$ 245,134
2 1/2" 1200'		1	good	1970	1200	65	2035	$ 90	$ 108,000	$ 203,650
4" 1000'		1	good	1970	1000	65	2035	$ 90	$ 90,000	$ 169,708
Service Lines										
1" service line 500'		4	good	1970	97	65	2035	$ 2,000	$ 194,000	$ 365,816
Isolation Valves										
size: 2" number: 4		4	good	2007	4	65	2072	$ 1,400	$ 5,600	$ 64,217
Blowoff Assembly										
2"		4	good	2007	2	65	2072	$ 4,000	$ 8,000	$ 91,739
Meter Replacement										
3/4"	#	3	good	2006	97	20	2026	$ 350	$ 33,950	$ 41,266
Service Assembly		3	good	2006	97	40	2046	$ 1,650	$ 160,050	$ 516,177
Total Estimated Costs									$ 1,353,900	$ 3,584,638

Capital Improvements

Well Pump	Will be replaced on failure
Pressure Tanks	Will be replaced on failure
Foster Pump House and Electrial	Will be replaced with treatment project
Lazy St Roofs	2034
Lazy St Electrical	2039
Meters	will be tested to determine accuracy before replacement

	Costs Per Year	Costs Per Year	Costs Per Year	Costs Per Year	Costs Per Year	Costs Per Year	Costs Per Year	Costs Per Year	Costs Per Year	Costs Per Year	Costs Per Year
	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
	$ 25,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	$ 2,500	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	$ 3,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
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Costs Per Year	Costs Per Year	Costs Per Year	Costs Per Year	Costs Per Year	Costs Per Year	Costs Per Year	Costs Per Year	Costs Per Year
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$ -	$ 4,490	$ 990,154	$ -	$ -	$ 13,316	$ 13,981	$ -	$ -

Critical Number	Description
1	The water system would essentially shut down if this component fails. This asset has no backup and is so important that an emergency plan must be in place as well as funding to replace it. Example: Single well pump failure; single reservoir failure; anything that could cause a violation of the Safe Drinking Water Act.
2	This asset would have a serious impact on the water system if it failed, however, procedures could fix the problem within a reasonable time. Example: Two wells and primary wellpump fails; Electrical compents in panels fail: backflow assembly did not pass testing; key pipe failure that could be repaired; single chlorinator failure; pressure reducing valve failure.
3	This asset would have a serious impact on the compliance of regulations for this water system
4	The condition of this asset causes continued unnecessary operational costs to your utility. Examples: deteriorating buildings, equipment and rolling stock; leaks in piping; old and worn-out electrical equipment.
5	This asset's condition or failure may cause inconvenience to customers via reduced service, outages, or minor taste or odor complaints. Examples: excessive leaks, valves frozen partway closed, hydrants not working so flushing cannot be done; poor billing program.
6	These assets have been in service for a long time and their condition may not be well known. Evaluation should take place and a determination made as to what may be needed.

3.3 *Six-Year Budget*

Operational, maintenance, and capital replacement costs are shared jointly by all PUD customers and are planned and managed in an aggregated manner across all PUD systems. Please see the Part A WSP Section 6.0 for the PUD's financial program, and Appendixes U and V for financial projections and rate setting policy. Thurston PUD's current Asset Management Program incorporates planning for all 273 Thurston PUD systems can be downloaded from the Thurston PUD website or made available upon request.

3.4 *Water Rates*

Please view current Thurston PUD rates at our website at http://thurstonpud.org/our-rates.htm

Chapter 4 **Other Documents**

4.1 *Water Facilities Inventory Form*

Washington State Department of Health
Division of Environmental Health
Office of Drinking Water

WATER FACILITIES INVENTORY (WFI) FORM

ONE FORM PER SYSTEM

Quarter: 1
Updated: 08/06/2021
Printed: 10/7/2022
WFI Printed For: On-Demand
Submission Reason: Source Update

RETURN TO: Central Services - WFI, PO Box 47822, Olympia, WA, 98504-7822 or email wfi@doh.wa.gov

1. SYSTEM ID NO.	2. SYSTEM NAME	3. COUNTY	4. GROUP	5. TYPE
46441 K	LAZY ACRES 351	THURSTON	A	Comm

6. PRIMARY CONTACT NAME & MAILING ADDRESS

KIMBERLY S. GUBBE [COMPLIANCE DIRECTOR]
1230 RUDDELL RD. SE.
LACEY, WA 98503

STREET ADDRESS IF DIFFERENT FROM ABOVE

ATTN
ADDRESS
CITY STATE ZIP

7. OWNER NAME & MAILING ADDRESS

PUD NO 1 OF THURSTON COUNTY
JOHN G. WEIDENFELLER GENERAL MANAGER
1230 RUDDELL RD. SE.
LACEY, WA 98503

STREET ADDRESS IF DIFFERENT FROM ABOVE

ATTN
ADDRESS
CITY STATE ZIP

9. 24 HOUR PRIMARY CONTACT INFORMATION		10. OWNER CONTACT INFORMATION	
Primary Contact Daytime Phone: (360) 357-8783 x125		Owner Daytime Phone: (360) 357-8783	
Primary Contact Mobile/Cell Phone: (360) 688-0827		Owner Mobile/Cell Phone: (360) 791-1739	
Primary Contact Evening Phone: (xxx)-xxx-xxxx		Owner Evening Phone: (xxx)-xxx-xxxx	
Fax: (360) 357-1172	E-mail: kxxxxe@thurstonpud.org	Fax: (360) 357-1172	E-mail: jxxxxxxxxxxr@thurstonpud.org

11. SATELLITE MANAGEMENT AGENCY - SMA (check only one)

- ☐ Not applicable (Skip to #12)
- ☒ Owned and Managed
- ☐ Managed Only
- ☐ Owned Only

SMA NAME: PUD No 1 of Thurston County SMA Number: 147

12. WATER SYSTEM CHARACTERISTICS (mark all that apply)

- ☐ Agricultural
- ☐ Commercial / Business
- ☐ Day Care
- ☐ Food Service/Food Permit
- ☐ 1,000 or more person event for 2 or more days per year
- ☐ Hospital/Clinic
- ☐ Industrial
- ☐ Licensed Residential Facility
- ☐ Lodging
- ☐ Recreational / RV Park
- ☒ Residential
- ☐ School
- ☐ Temporary Farm Worker
- ☐ Other (church, fire station, etc.): _____

13. WATER SYSTEM OWNERSHIP (mark only one)

- ☐ Association
- ☐ City / Town
- ☐ County
- ☐ Federal
- ☐ Investor
- ☐ Private
- ☒ Special District
- ☐ State

14. STORAGE CAPACITY (gallons)

- SEE NEXT PAGE FOR A COMPLETE LIST OF SOURCES -

WATER FACILITIES INVENTORY (WFI) FORM - Continued

1. SYSTEM ID NO.	2. SYSTEM NAME	3. COUNTY	4. GROUP	5. TYPE
46441 K	LAZY ACRES 351	THURSTON	A	Comm

15	16	17	18									19			20	21						22	23	24			
	SOURCE NAME	INTERTIE	SOURCE CATEGORY									USE				TREATMENT						DEPTH		SOURCE LOCATION			
Source Number	LIST UTILITY'S NAME FOR SOURCE AND WELL TAG ID NUMBER. Example: WELL #1 XYZ456 IF SOURCE IS PURCHASED OR INTERTIED, LIST SELLER'S NAME Example: SEATTLE	INTERTIE SYSTEM ID NUMBER	WELL	WELL FIELD	WELL IN A WELL FIELD	SPRING	SPRING FIELD	SPRING IN SPRINGFIELD	SEA WATER	SURFACE WATER	RANNEY / INF. GALLERY	OTHER	PERMANENT	SEASONAL	EMERGENCY	SOURCE METERED	NONE	CHLORINATION	FILTRATION	FLUORIDATION	IRRADIATION (UV)	OTHER	DEPTH TO FIRST OPEN INTERVAL IN FEET	CAPACITY (GALLONS PER MINUTE)	1/4, 1/4 SECTION	SECTION NUMBER	TOWNSHIP	RANGE
S01	LAZY #1 ABS204 WW				X							X			Y	X						55	50	NE SW	04	17N	02W
S02	LAZY #2 AHF064		X									X			Y	X						115	38	NE SW	04	17N	02W
S03	LAZY #3 AHF065 WW				X									X	Y	X						55	50	NE SW	04	17N	02W
S04	FOSTER PITLESS		X									X			Y	X						68	61	NE SW	04	17N	02W
S05	FOSTER-OLD WELL		X											X	Y	X						39	25	NE SW	04	17N	02W
S06	WF (S01,S03)			X								X			Y	X						55	100	NE SW	04	17N	02W

WATER FACILITIES INVENTORY (WFI) FORM - Continued

1. SYSTEM ID NO.	2. SYSTEM NAME	3. COUNTY	4. GROUP	5. TYPE
46441 K	LAZY ACRES 351	THURSTON	A	Comm

	ACTIVE SERVICE CONNECTIONS	DOH USE ONLY! CALCULATED ACTIVE CONNECTIONS	DOH USE ONLY! APPROVED CONNECTIONS
25. SINGLE FAMILY RESIDENCES (How many of the following do you have?)		94	97
A. Full Time Single Family Residences (Occupied 180 days or more per year)	94		
B. Part Time Single Family Residences (Occupied less than 180 days per year)	0		
26. MULTI-FAMILY RESIDENTIAL BUILDINGS (How many of the following do you have?)			
A. Apartment Buildings, condos, duplexes, barracks, dorms	0		
B. Full Time Residential Units in the Apartments, Condos, Duplexes, Dorms that are occupied more than 180 days/year	0		
C. Part Time Residential Units in the Apartments, Condos, Duplexes, Dorms that are occupied less than 180 days/year	0		
27. NON-RESIDENTIAL CONNECTIONS (How many of the following do you have?)			
A. Recreational Services and/or Transient Accommodations (Campsites, RV sites, hotel/motel/overnight units)	0	0	0
B. Institutional, Commercial/Business, School, Day Care, Industrial Services, etc.	0	0	0
28. TOTAL SERVICE CONNECTIONS		94	97

29. FULL-TIME RESIDENTIAL POPULATION

A. How many residents are served by this system 180 or more days per year? 267

30. PART-TIME RESIDENTIAL POPULATION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
A. How many part-time residents are present each month?												
B. How many days per month are they present?												

31. TEMPORARY & TRANSIENT USERS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
A. How many total visitors, attendees, travelers, campers, patients or customers have access to the water system each month?												
B. How many days per month is water accessible to the public?												

32. REGULAR NON-RESIDENTIAL USERS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
A. If you have schools, daycares, or businesses connected to your water system, how many students, daycare children and/or employees are present each month that are NOT already included in the residential population?												
B. How many days per month are they present?												

33. ROUTINE COLIFORM SCHEDULE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	1	1	1	1	1	1	1	1	1	1	1	1

34. NITRATE SCHEDULE	QUARTERLY	ANNUALLY	ONCE EVERY 3 YEARS
(One Sample per source by time period)			

35. Reason for Submitting WFI:

☐ Update - Change ☐ Update - No Change ☐ Inactivate ☐ Re-Activate ☐ Name Change ☐ New System ☐ Other _____

36. I certify that the information stated on this WFI form is correct to the best of my knowledge.

SIGNATURE: _____ **DATE:** _____

PRINT NAME: _____ **TITLE:** _____

Washington State Department of Health
Division of Environmental Health
Office of Drinking Water

Water Facilities Inventory (WFI)

Report Create Date:	10/7/2022		
Water System Id(s):	46441		
Print Data on Distribution Page:	ALL		
Print Copies For:	DOH Copy		
Water System Name:	ALL		
County:	-- Any --		
Region:	ALL		
Group:	ALL		
Type:	ALL		
Permit Renewal Quarter:	ALL		
Water System Is New:	ALL		
Water System Status:	ALL		
Water Status Date From:	ALL	**To**	ALL
Water System Update Date	ALL	**To**	ALL
Owner Number:	ALL		
SMA Number:	ALL		
SMA Name:	ALL		
Active Connection Count From:	ALL	**To:**	ALL
Approved Connection Count	ALL	**To:**	ALL
Full-Time Population From:	ALL	**To:**	ALL
Water System Expanding	ALL		
Source Type:	ALL		
Source Use:	ALL		
WFI Printed For:	On-Demand		

4.2 *Annual Operating Permit*

Table 4.2.1 Annual Operating Permit

Current Permit Color	**Permit Condition(s)** *If your permit is red, yellow, or blue, list the conditions noted on the permit for returning to substantial compliance.*	**Corrective Action** *List the actions you intend to take to return your system to substantial compliance*	**Target Completion Date**
Green			

STATE OF WASHINGTON
Public Water System
Operating Permit

The Department of Health Office of Drinking Water issues a permit to operate:

LAZY ACRES 351 (ID# 46441 K)

to owner: PUD No 1 of Thurston County County: THURSTON

PUD No 1 of Thurston County
1230 Ruddell Rd. SE.
Lacey, WA 98503

This Permit is valid through: 31 May 2023

PERMIT CATEGORY: **** Green ****

The permit category may be modified or the permit revoked subject to water system compliance with applicable State of Washington drinking water rules and regulations and the following statements.

The system operating permit color category is based on information on file with the Department at the time this permit was printed.

System is substantially in compliance with applicable drinking water requirements

Washington State Department of Health

DOH 331-030(11/08) Report Date:10/12/2022

4.3 *Well Logs, Pump Curves, Protective Covenant*

...st Copy with
...ology
- Owner's Copy
- Driller's Copy

WATER WELL REPORT
STATE OF WASHINGTON

Application No. 501
Permit No. [illegible]

(1) OWNER: Name ..... Address ABS204

(2) LOCATION OF WELL: County THURSTON Co. LACEY — ¼ ¼ Sec. ... T. ... N., R. ... W.M.
Bearing and distance from section or subdivision corner Acres

(3) PROPOSED USE: Domestic ☐ Industrial ☐ Municipal ☐
(DEVELOPMENT) Irrigation ☐ Test Well ☐ Other ☒

(4) TYPE OF WORK: Owner's number of well (if more than one) ....
New well ☒ Method: Dug ☐ Bored ☐
Deepened ☐ Cable ☒ Driven ☐
Reconditioned ☐ Rotary ☐ Jetted ☐

(5) DIMENSIONS: Diameter of well 6 inches.
Drilled 55 ft. Depth of completed well 55 ft.

(6) CONSTRUCTION DETAILS:
Casing installed: ..." Diam. from 0 ft. to 50 ft.
Threaded ☐ ..." Diam. from ... ft. to ... ft.
Welded ☒ ..." Diam. from ... ft. to ... ft.

Perforations: Yes ☐ 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.

Screens: Yes ☒ No ☐
Manufacturer's Name JOHNSON SS.
Type STAINLESS STEEL Model No.
Diam. 5½ Slot size 20 from 50 ft. to 55 ft.
Diam. ... Slot size ... from ... ft. to ... ft.

Gravel packed: Yes ☐ No ☒ Size of gravel:
Gravel placed from ... ft. to ... ft.

Surface seal: Yes ☒ No ☐ To what depth? 10 ft.
Material used in seal
Did any strata contain unusable water? Yes ☐ No ☒
Type of water? — Depth of strata —
Method of sealing strata off CASED

(7) PUMP: Manufacturer's Name
Type: ... H.P.

(8) WATER LEVELS: Land-surface elevation above mean sea level .... ft.
Static level 22 ft. below top of well Date JULY 2, 65
Artesian pressure ... lbs. per square inch Date
Artesian water is controlled by — (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☒ No ☐ If yes, by whom? OWNER
Yield: ... gal./min. with ... ft. drawdown after ... hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test JULY 3, 1965
Bailer test 50 gal./min. with 23 ft. drawdown after 1 hrs.
Artesian flow ... g.p.m. Date —
Temperature of water ? Was a chemical analysis made? Yes ☐ No ☒

(10) WELL LOG:

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.*

MATERIAL	FROM	TO
FINE SAND & SILT	0	40
SOPPY SAND SILT & WATER	40	49
SAND GRAVEL & WATER	49	53
HARDPAN	53	54
SAND & GRAVEL W/ WATER	54	56

Work started JULY 1, 19 65 Completed JULY 3, 19 65

WELL DRILLER'S STATEMENT:

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

NAME Hanlon Drilling
(Person, firm, or corporation) (Type or print)

Address 4305 Lacey Blvd. Lacey WN

[Signed] Donald S Mylnik
(Well Driller)

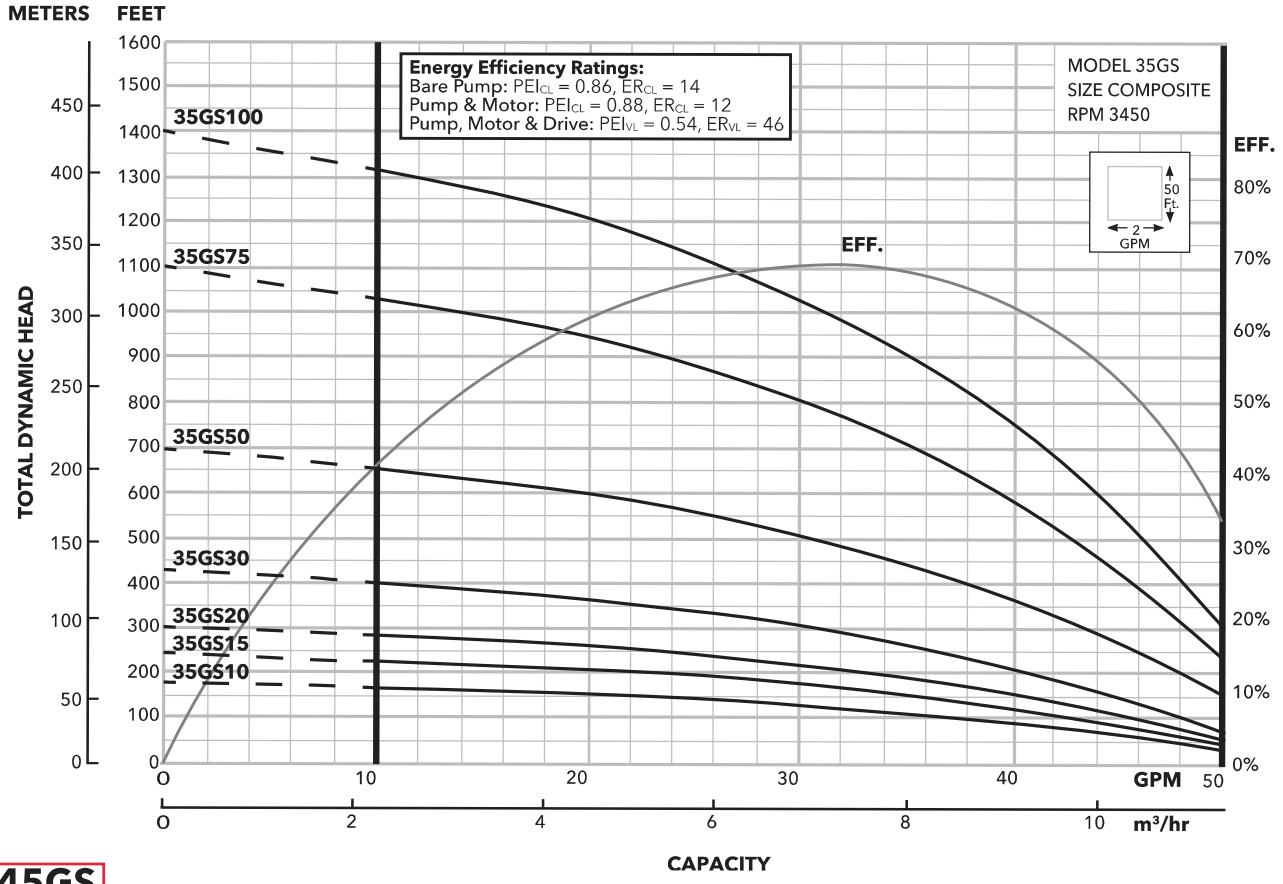
License No. 223-02-3650 Date April 12, 1973

(USE ADDITIONAL SHEETS IF NECESSARY)

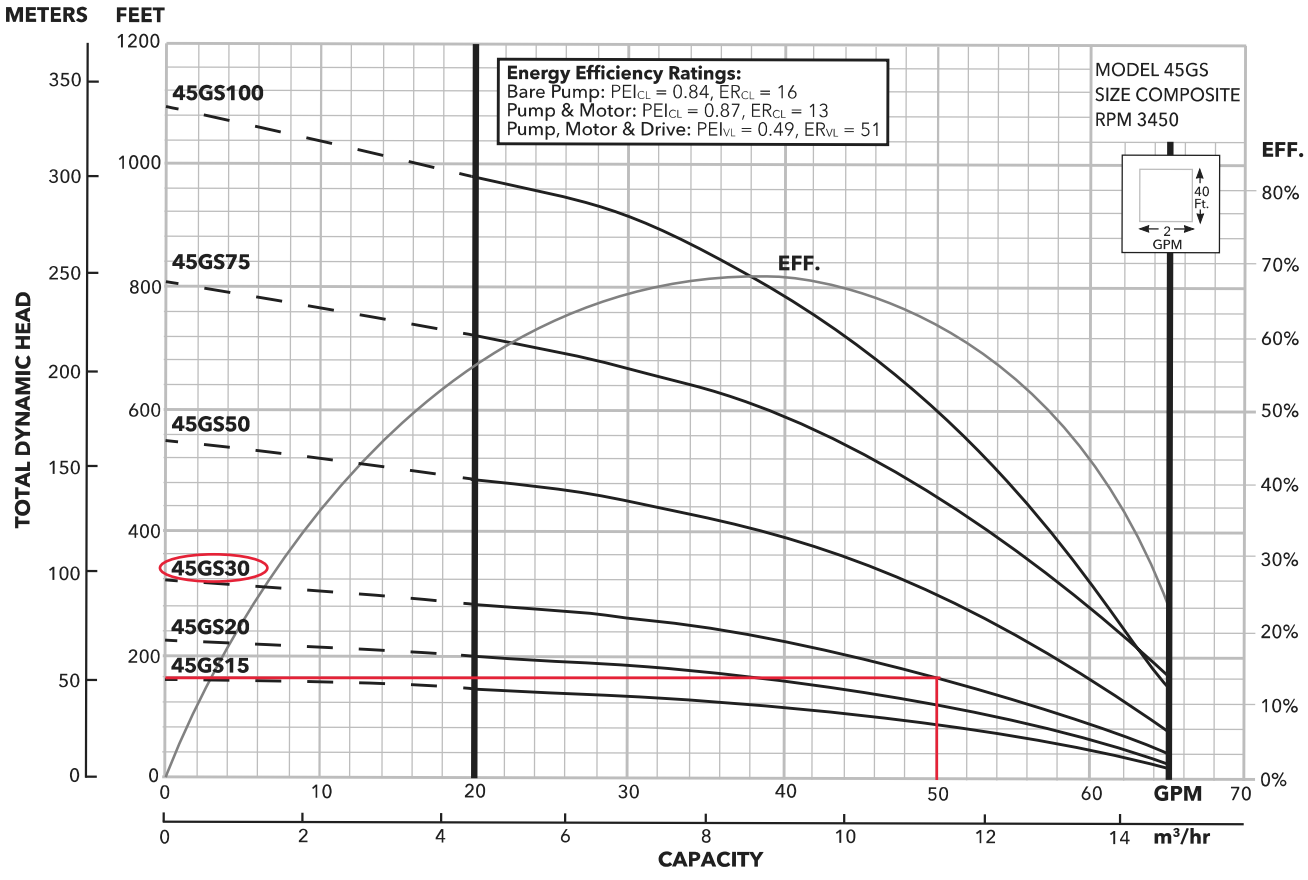
F. No. 7356—OS—(Rev. 4-71).

WELL 1

Model 35GS



Model 45GS



Owner's Copy
Driller's Copy

WATER WELL REPORT

STATE OF WASHINGTON

Application No. .....

Permit No. 503

(1) OWNER: Name WRS 194 ERSON Address AHF065

(2) LOCATION OF WELL: County THURSTON Co. LAKE — ¼ ¼ Sec. T. N., R. W.M.

Bearing and distance from section or subdivision corner ACRES

(3) PROPOSED USE: Domestic ☐ Industrial ☐ Municipal ☒
Irrigation ☐ Test Well ☐ Other ☐
DEVELOPMENT

(4) TYPE OF WORK: Owner's number of well (if more than one) ....
New well ☒ Method: Dug ☐ Bored ☐
Deepened ☐ Cable ☒ Driven ☐
Reconditioned ☐ Rotary ☐ Jetted ☐

(5) DIMENSIONS: Diameter of well 6 inches.
Drilled 54 ft. Depth of completed well 54 FT ft.

(6) CONSTRUCTION DETAILS:

Casing installed: ..." Diam. from 0 ft. to 54 ft.
Threaded ☐ ..." Diam. from .... ft. to .... ft.
Welded ☒ ..." Diam. from .... ft. to .... ft.

Perforations: Yes ☐ 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.

Screens: Yes ☐ No ☒
Manufacturer's Name
Type .... Model No.
Diam. .... Slot size .... from .... ft. to .... ft.
Diam. .... Slot size .... from .... ft. to .... ft.

Gravel packed: Yes ☐ No ☒ Size of gravel: ....
Gravel placed from .... ft. to .... ft.

Surface seal: Yes ☒ No ☐ To what depth? 8 ft.
Material used in seal
Did any strata contain unusable water? Yes ☐ No ☒
Type of water? — Depth of strata
Method of sealing strata off CASED

(7) PUMP: Manufacturer's Name BERKELEY
Type: B.S.J. H.P. 3 HP

(8) WATER LEVELS: Land-surface elevation above mean sea level .... ft.
Static level 17' ft. below top of well Date JUNE 3'72
Artesian pressure — lbs. per square inch Date —
Artesian water is controlled by — (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☒ No ☐ If yes, by whom? DRILLER
Yield: 50 gal./min. with 24 ft. drawdown after 2 hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test JUNE 20, 1972
Bailer test 50 gal./min. with 24 ft. drawdown after 1 hrs.
Artesian flow .... g.p.m. Date —
Temperature of water — Was a chemical analysis made? Yes ☐ No ☒

(10) WELL LOG:

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.*

MATERIAL	FROM	TO
SAND, SILT	0	40
SAND & SILT-FINE GRAVEL	40	47
SAND, GRAVEL & WATER	47	48
SAND GRAVEL & "	48	54
GRAVEL & WATER	54'	
OPEN BOTTOM WELL -		

Work started JUNE 1, 1972 Completed JUNE 2, 1972

WELL DRILLER'S STATEMENT:

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

NAME HAROLD E. MITCHELL
(Person, firm, or corporation) (Type or print)

Address 4305 LACEY BLVD OLY. WN.

[Signed] Harold E Mitchell
(Well Driller)

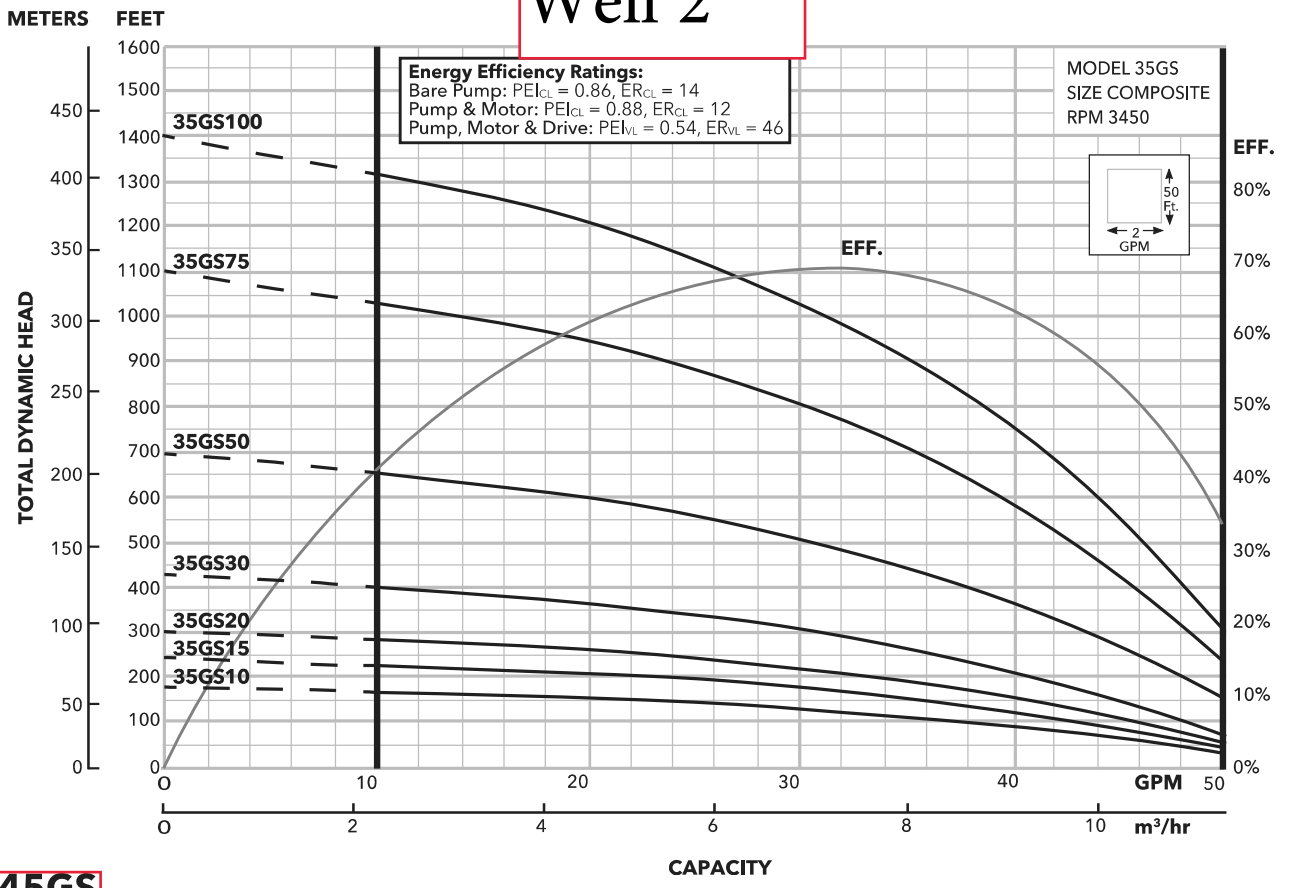
License No. 223-02-3650 Date APRIL 12, 1973

(USE ADDITIONAL SHEETS IF NECESSARY)

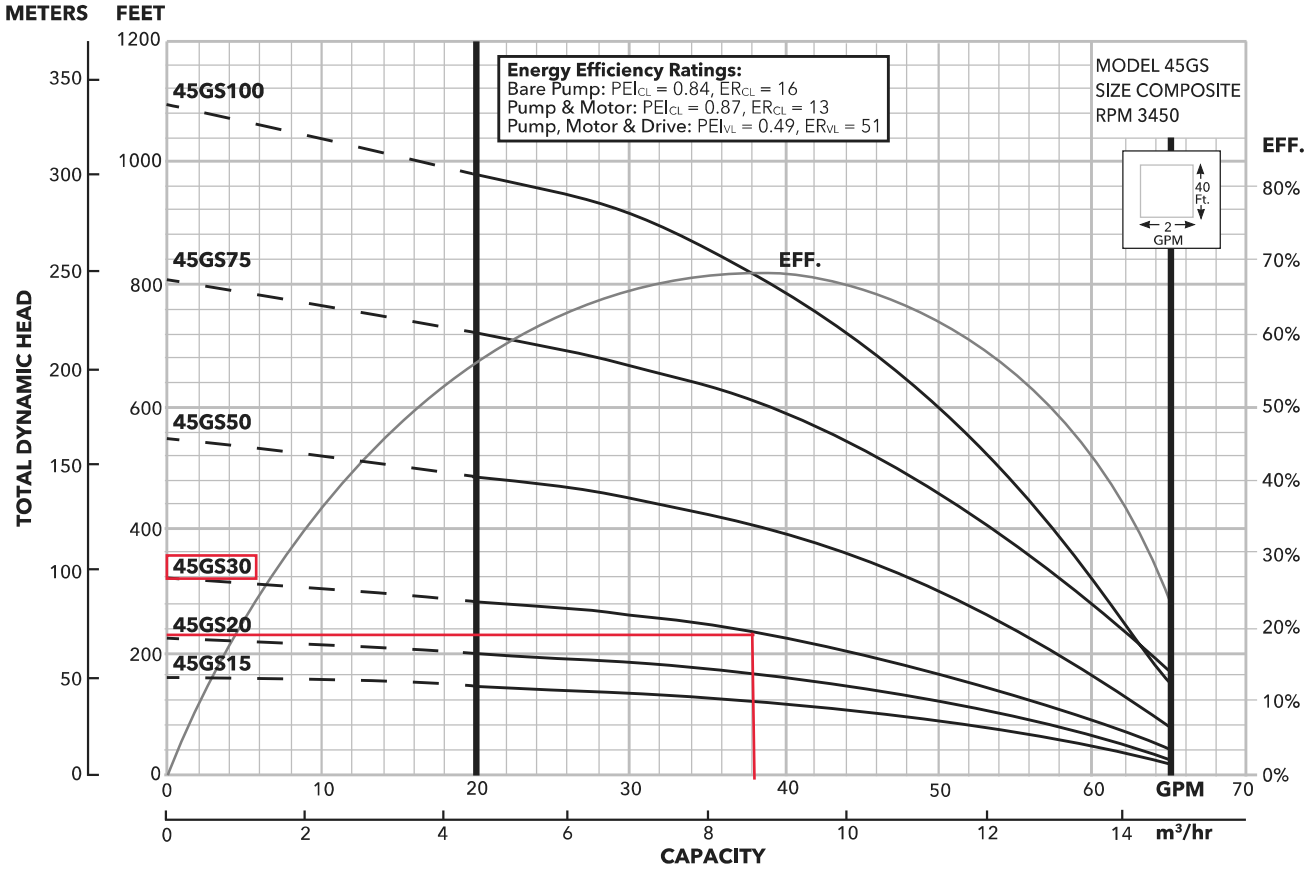
F. No. 7356—OS—(Rev. 4-71).

Model 35GS

Well 2



Model 45GS



File Original and First Copy with Department of Ecology
Second Copy—Owner's Copy
Third Copy—Driller's Copy

WATER WELL REPORT

STATE OF WASHINGTON

#4

Start Card No. 029296

504

Water Right Permit No. _____

(1) **OWNER:** Name _____ Address 2719 70th Ave SW / Olympia

(2) **LOCATION OF WELL:** County Thurston NE ¼ SW ¼ Sec 21 T. 17 N., R. 2 W.M.

(2a) **STREET ADDDRESS OF WELL** (or nearest address) (enter from end of 70th Ave

(3) **PROPOSED USE:** ☒ Domestic ☐ Industrial ☐ Municipal ☐ ☐ Irrigation ☐ Test Well ☐ Other ☐ ☐ DeWater

(4) **TYPE OF WORK:** Owner's number of well (if more than one) _____

Abandoned ☐ New well ☒ Method: Dug ☐ Bored ☐ Deepened ☐ Cable ☒ Driven ☐ Reconditioned ☐ Rotary ☐ Jetted ☐

(5) **DIMENSIONS:** Diameter of well 6 inches. Drilled 70 feet. Depth of completed well 69' 3 3/4 ft.

(6) **CONSTRUCTION DETAILS:**

Casing installed: 6" Diam. from +1 ft. to 68 3/4 ft.
Welded ☒ Liner installed ☐ Threaded ☐ _____" Diam. from _____ ft. to _____ ft.

Perforations: Yes ☐ 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.

Screens: Yes ☐ No ☒
Manufacturer's Name _____
Type _____ Model No. _____
Diam. _____ Slot size _____ from _____ ft. to _____ ft.
Diam. _____ Slot size _____ from _____ ft. to _____ ft.

Gravel packed: Yes ☐ No ☒ Size of gravel _____
Gravel placed from _____ ft. to _____ ft.

Surface seal: Yes ☒ No ☐ To what depth? 13 ft.
Material used in seal Bentonite
Did any strata contain unusable water? Yes ☐ No ☒
Type of water? _____ Depth of strata _____
Method of sealing strata off _____

(7) **PUMP:** Manufacturer's Name _____
Type: _____ H.P. _____

(8) **WATER LEVELS:** Land-surface elevation above mean sea level _____ ft.
Static level 13-10½ ft. below top of well Date 7-20 89
Artesian pressure _____ lbs. per square inch Date _____
Artesian water is controlled by _____ (Cap, valve, etc.)

(9) **WELL TESTS:** Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☒ No ☐ If yes, by whom? CDC
Yield: 7½ gal./min. with 15 ft. drawdown after 3 hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test 7-20-89
Baller test _____ gal./min. with _____ ft. drawdown after _____ hrs.
Airtest _____ gal./min. with stem set at _____ ft. for _____ hrs.
Artesian flow _____ g.p.m. Date _____
Temperature of water _____ Was a chemical analysis made? Yes ☐ No ☒

(10) **WELL LOG or ABANDONMENT PROCEDURE DESCRIPTION**

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 information.

MATERIAL	FROM	TO
Sandy loam brown	0	4
Silt, sand & clay brown	4	28
Sand, clay & gravel brown (water bearing)	28	31
Sand & gravel & clay (compact) brown	31	43
Sand & gravel brown	43	50
Sand & gravel & clay (compact) brown	50	59
Gravel & sand gray	59	69
Gravel & clay light brown	69	70

Work started Dec 17, 19. Completed Dec 20, 19 89

WELL CONSTRUCTOR CERTIFICATION:

I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

NAME CARPENTER DRILL CO. COMPANY (PERSON, FIRM, OR CORPORATION) (TYPE OR PRINT)

Address 2031 S Bay Rd Olympia

(Signed) _____ (WELL DRILLER) License No. 267

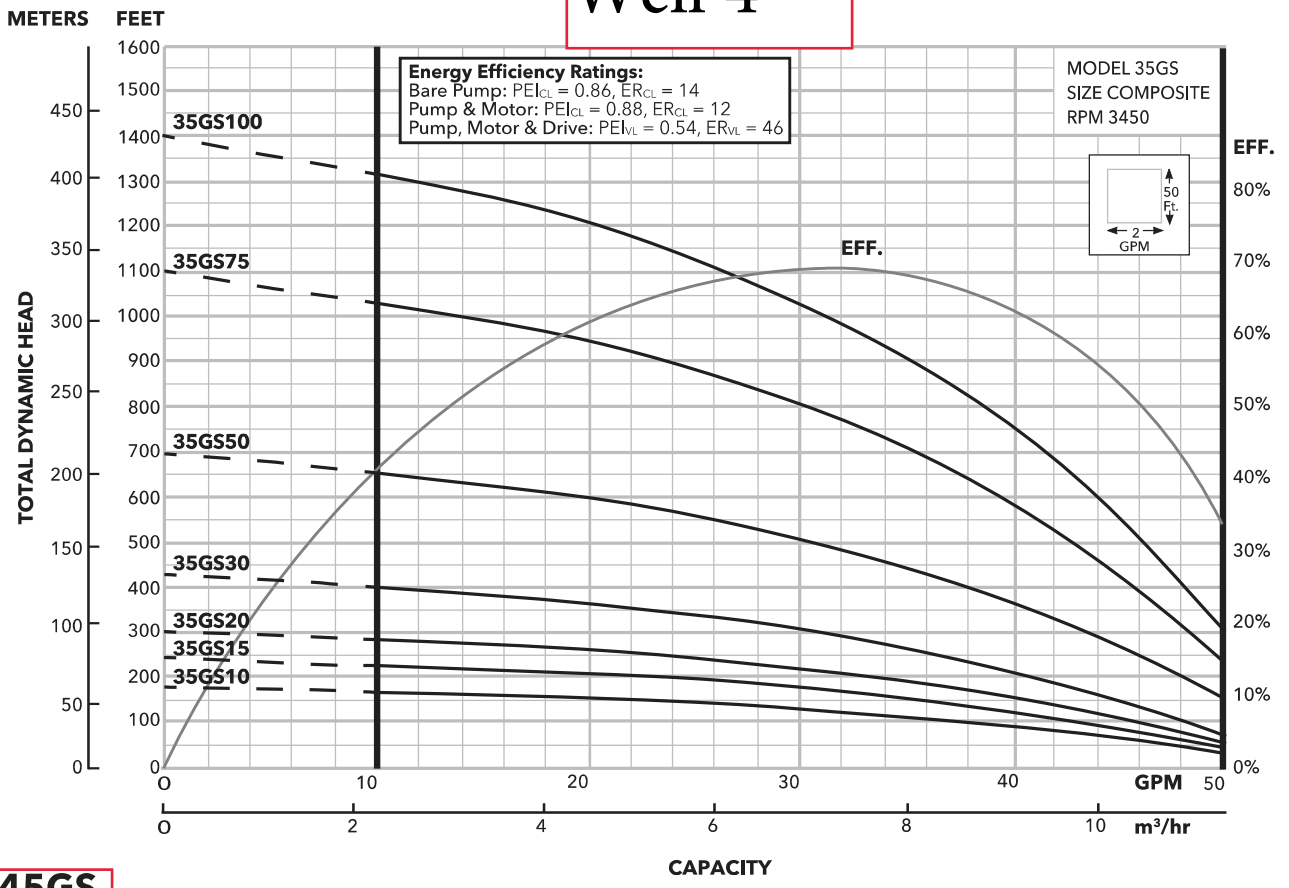
Contractor's Registration No. CARPEDC 920 Date 7-20, 19 89

(USE ADDITIONAL SHEETS IF NECESSARY)

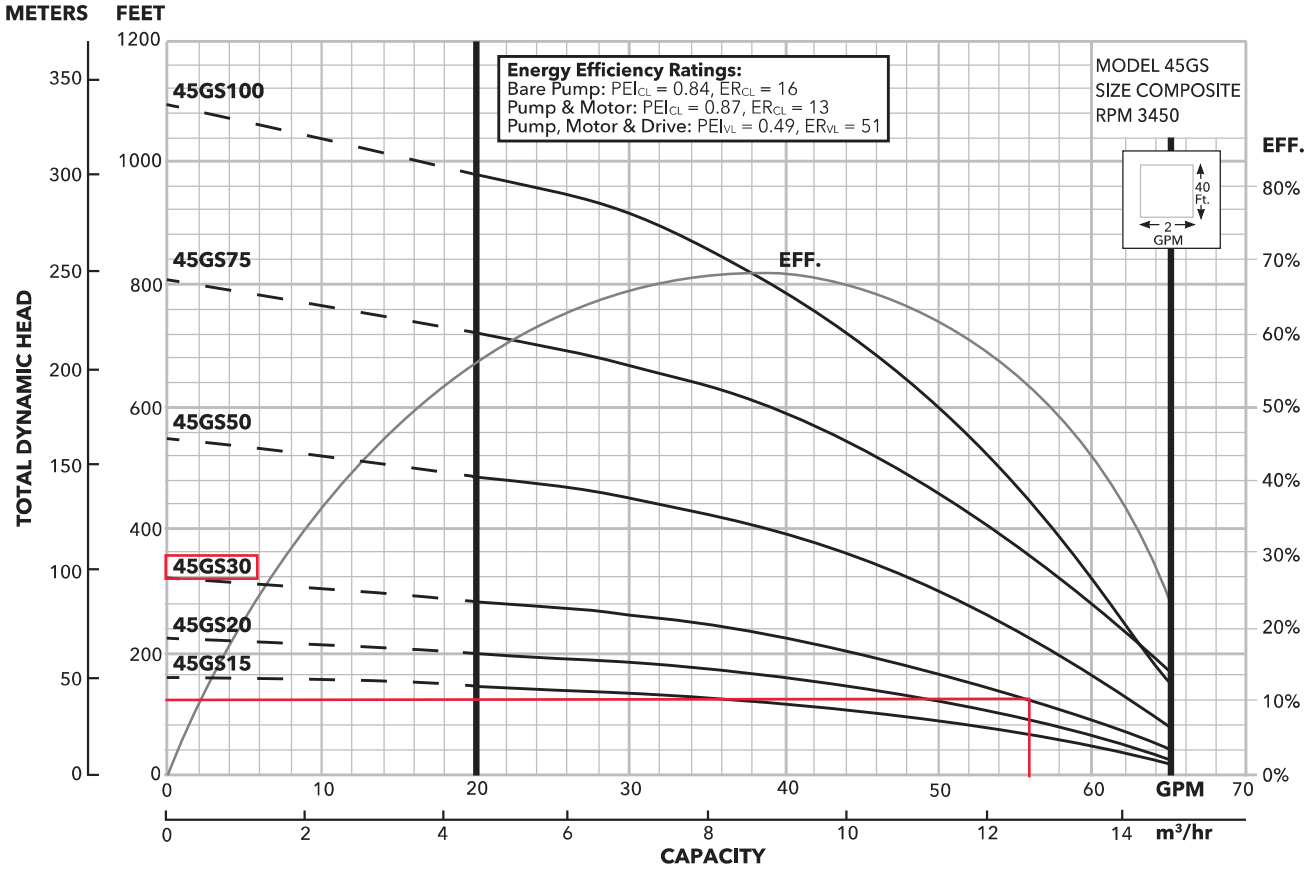
ECY 050-1-20 (10/87) -1329- 3

Model 35GS

Well 4



Model 45GS



Ecology — Owner's Copy
— Driller's Copy

WATER WELL REPORT

STATE OF WASHINGTON

Permit No. ....

(1) **OWNER:** Name WEST, NELSON Address 505 Foster Place

(2) **LOCATION OF WELL:** County ... ¼ ... ¼ Sec ... T ... N., R ... W.M.

Bearing and distance from section or subdivision corner

(3) **PROPOSED USE:** Domestic ☐ Industrial ☐ Municipal ☑
Irrigation ☐ Test Well ☐ Other ☐

(4) **TYPE OF WORK:** Owner's number of well (if more than one) ....
New well ☑ Method: Dug ☐ Bored ☐
Deepened ☐ Cable ☐ Driven ☐
Reconditioned ☐ Rotary ☐ Jetted ☐

(5) **DIMENSIONS:** Diameter of well ... inches.
Drilled ... ft. Depth of completed well ... ft.

(6) **CONSTRUCTION DETAILS:**

Casing installed: 6 " Diam. from 0 ft. to 41 ft.
Threaded ☐ ... " Diam. from ... ft. to ... ft.
Welded ☑ ... " Diam. from ... ft. to ... ft.

Perforations: Yes ☐ 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.

Screens: Yes ☐ No ☑
Manufacturer's Name ...
Type ... Model No ...
Diam. ... Slot size ... from ... ft. to ... ft.
Diam. ... Slot size ... from ... ft. to ... ft.

Gravel packed: Yes ☐ No ☑ Size of gravel: ...
Gravel placed from ... ft. to ... ft.

Surface seal: Yes ☑ No ☐ To what depth? 17 ft.
Material used in seal CEMENT
Did any strata contain unusable water? Yes ☐ No ☑
Type of water? ... Depth of strata ...
Method of sealing strata off ...

(7) **PUMP:** Manufacturer's Name MYERS
Type: SUB H.P. 3

(8) **WATER LEVELS:** Land-surface elevation above mean sea level .... ft.
Static level 21 ft. below top of well Date 11/20/73
Artesian pressure ... lbs. per square inch Date ...
Artesian water is controlled by ... (Cap, valve, etc.)

(9) **WELL TESTS:** Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☐ No ☑ If yes, by whom? ...
Yield: ... gal./min. with ... ft. drawdown after ... hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test 11/20/73
Bailer test 60 gal./min. with 5 ft. drawdown after 3 hrs.
Artesian flow ... g.p.m. Date ...
Temperature of water ... Was a chemical analysis made? Yes ☐ No ☑

(10) **WELL LOG:**

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.*

MATERIAL	FROM	TO
TOP SOIL	0	5
SAND FINE	5	15
55FT HARD PAN CLAY + GRAVEL	15	35
GRAVEL COARSE	35	41
WATER BEARING		

Work started ..., 19... Completed ..., 19...

WELL DRILLER'S STATEMENT:

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

NAME COVALITZ DRILLING CO
(Person, firm, or corporation) (Type or print)

Address R-5 Box 280 OLYMPIA, WA.

[Signed] ... (Well Driller)

License No. 0084 Date 11/20/ ..., 1973

(USE ADDITIONAL SHEETS IF NECESSARY)

S. F. No. 7356—OS—(Rev. 4-71).

File Original and First Copy with Department of Ecology
Second Copy — Owner's Copy
Third Copy — Driller's Copy

WATER WELL REPORT
STATE OF WASHINGTON

Application No. 62-24079
Permit No. 62-24079P

(1) OWNER: Name MRS ANDERSON Address R-18 Box 333 OLYMPIA WN.

(2) LOCATION OF WELL: County THURSTON S.E. ¼ SW ¼ Sec. 4 T. 17 N., R. 2 W.M.
Bearing and distance from section or subdivision corner 300' W and 580 N. of S ¼ CORNER

(3) PROPOSED USE: Domestic ☐ Industrial ☐ Municipal ☑
Irrigation ☐ Test Well ☐ Other ☐

(4) TYPE OF WORK: Owner's number of well (if more than one)....
New well ☑ Method: Dug ☐ Bored ☐
Deepened ☐ Cable ☑ Driven ☐
Reconditioned ☐ Rotary ☐ Jetted ☐

(5) DIMENSIONS: Diameter of well 6 inches.
Drilled 50 ft. Depth of completed well 50 ft.

(6) CONSTRUCTION DETAILS:
Casing installed: 6" Diam. from 0 ft. to 49 ft.
Threaded ☐ " Diam. from ft. to ft.
Welded ☑ " Diam. from ft. to ft.

Perforations: Yes ☑ No ☐
Type of perforator used TORCH
SIZE of perforations ~~¼~~ 1 in. by 4 in.
30 perforations from 40 ft. to 45 ft.
perforations from ft. to ft.
perforations from ft. to ft.

Screens: Yes ☐ No ☑
Manufacturer's Name
Type Model No.
Diam. Slot size from ft. to ft.
Diam. Slot size from ft. to ft.

Gravel packed: Yes ☐ No ☑ Size of gravel:
Gravel placed from ft. to ft.

Surface seal: Yes ☐ No ☐ To what depth? 18 ft.
Material used in seal CEMENT
Did any strata contain unusable water? Yes ☐ No ☑
Type of water? Depth of strata
Method of sealing strata off

(7) PUMP: Manufacturer's Name MYERS
Type: SUB H.P. 5

(8) WATER LEVELS: Land-surface elevation above mean sea level.... 20 ft.
Static level ft. below top of well Date 5-15-76
Artesian pressure lbs. per square inch Date
Artesian water is controlled by (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☑ No ☐ If yes, by whom? DRILLER
Yield: 100 gal./min. with 8 ft. drawdown after 24 hrs.
" " " "
" RECOVERY TIME 1 MIN "
Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test
Bailer test gal./min. with ft. drawdown after hrs.
Artesian flow g.p.m. Date
Temperature of water Was a chemical analysis made? Yes ☐ No ☐
OK 5/31/78

(10) WELL LOG:
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.*

MATERIAL	FROM	TO
TOP SOIL	0	4
SAND	4	16
HARD PAN	16	25
SILT CLAY BLUE	25	27
CLAY BLUE SOFT	27	31
SAND FINE	31	35
GRAVEL PEA	35	47
GRAVEL COARSE	47	50

Work started ....., 19..... Completed ....., 19.....

WELL DRILLER'S STATEMENT:

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

NAME COMLITZ DRILLING
(Person, firm, or corporation) (Type or print)
Address R-5 Box 280 OLYMPIA WN.
[Signed] (Well Driller)
License No. 0084 Date 10/14/, 19 76

THURSTON COUNTY
OLYMPIA, WA
01/08/91 11:52 AM
REQUEST OF: VELKOMMEN
Sam S. Reed, AUDITOR
BY: JEFFREY, DEPUTY
$8.00 DECCOV

DECLARATION OF COVENANT

The grantor, Phylis Anderson is the owner of the following described real property situated in Thurston County, Washington, to-wit:

The plat of Foster Place as recorded under Volume 18, Pages 70-71 of Plats; Thurston County, Washington.

Several wells and waterworks are in close proximity to the land of the grantor and said grantor is required to prevent certain practices hereinafter enumerated within the grantor's land which might contaminate said wells.

NOW, THEREFORE, the grantor, her successors and assigns do agree that they will not construct, maintain or suffer to be constructed or maintained upon the said land of the grantor and within 100 feet of said wells so long as the same area operated to furnish water for domestic consumption, any of the following:

Cesspools, sewers, privies, septic tanks, drainfields, manure piles, garbage of any kind or description, barns, chicken houses, rabbit hutches, pigpens, or other enclosures or structures for the keeping or maintenance of fowls or animals or storage of liquid or dry chemicals, herbicides or insecticides.

Said 100 foot radius points are described as follows:

Beginning at the intersection of Israel Road and Foster Court and running thence North 62° 49' 16" East, 196.61 feet; ALSO o/d

Beginning at the intersection of Israel Road and Foster Court and running thence North 61° 04' 36" East, 270.88 feet. New

These covenants shall run with the land and shall be binding on all parties having or acquiring any right, title or interest in the land described herein or any part thereof.

Phyllis A. Anderson
Phyllis Anderson

affect Park Site

Vol: 1792 Page: 862
File No: 9101080077

STATE OF WASHINGTON)
)ss
County of Thurston)

On this day personally appeared before me PHYLIS ANDERSON known to be the individual described in and who executed the within and foregoing instrument and acknowledged that she signed the same as her free and voluntary act and deed for the uses and purposes therein mentioned.

Given under my hand and official seal this 8th day of January 1991.

Olive C. Godat
Notary Public in and for the State of Washington, residing at

My Commission Expires: 9/29/93

Vol: 1792 Page: 863
File No: 9101080077

4.4 *Susceptibility Assessment and Groundwater Contribution Area Notifications*

Ground Water Contamination
Susceptibility Assessment Survey Form
Version 2.2

IMPORTANT! Please complete one form for each ground water source (well, wellfield, spring) used in your water system. Photocopy as necessary.

PART I: System Information

Well owner/manager: **American Water Resources**

Water system name: **Lazy Acres #351**

County: **Thurston**

Water system number: **46441K** Source Number: **SO1**

Well depth: **55** (ft.) (*From WFI form*)

Source name: **Well #1**

WA well identification tag number: ____ ____ ____ - ____ ____ ____

____ well not tagged

Number of connections (ERU's): **82** Population served: **246**
Township: **17N** Range: **02W**
Section: **04** 1/4 1/4 Section: **NE/SW**
Latitude/longitude (if available): **N 46 59' 15"°** / **W 122° 56' 26"**

How was lat./long. determined?

____ global positioning device ____ survey **XX** topographic map
____ other: ____

- Please refer to Assistance Packet for details and explanations of all questions in Parts II through V.

PART II: Well Construction and Source Information

1) Date well originally constructed: **07** / **03** / **68** month/day/year
last reconstruction: ____ / ____ / ____ month/day/year

____ information unavailable

2) Well driller: **Mykol Drillng**

_____ well driller unknown

3) Type of well:

XX	**Drilled:**	____	rotary	____	bored	**XX**	cable (percussion)	____ **Dug**
____	**Other:**	____	spring(s)	____	lateral collector (Ranney)			
		____	driven	____	jetted	____	other:	_____

Additional Comments:

4) Well report available? **XX** YES (attach copy to form) _____ NO

If no well log is available, please attach any other records documenting well construction; e.g. boring logs, "as built" sheets, engineering reports, well reconstruction logs.

5) Average pumping rate: **50** (gallons/min)

Source of information: **WFI**

If not documented, how was pumping rate determined?

_____ Pumping rate unknown

6) Is this source treated? _____ YES **XX** NO

If so, what type of treatment:

____ disinfection ____ filtration ____ carbon filter ____ air stripper ____ other

Purpose of treatment (describe materials to be removed or controlled by treatment):

7) If source is chlorinated, is a chlorine residual maintained: _____ YES **XX** NO

Residual level: _____ (*At the point closest to the source.*)

PART III: Hydrogeologic Information

1) Depth to top of open interval: [check one]

____ (less than) 20 ft ____ 20-50 ft **XX** 50-100 ft ____ 100-200 ft ____ (greater than) 200 ft
____ information unavailable

2) Depth to ground water (static water level):

____ (less than) 20 ft **XX** 20-50 ft ____ 50-100 ft ____ (greater than) 100 ft
____ flowing well/spring (artesian)

How was water level determined?

XX well log ____ other: _____

____ depth to ground water unknown

3) If source is a flowing well or spring, what is the confining pressure:

____ psi (pounds per square inch)
or
____ feet above wellhead

4) If source is a flowing well or spring, is there a surface impoundment, reservoir, or catchment associated with this source: ____ YES ____ NO

5) Wellhead elevation (height above mean sea level): **194** (ft)

How was elevation determined? **XX** topographic map ____ Drilling/Well Log ____ altimeter

____ other: _____

____ information unavailable

6) Confining layers: (This can be completed only for those sources with a drilling log, well log or geologic report describing subsurface conditions. Please refer to assistance package for example.)

____ evidence of a confining layer in well log

XX no evidence of a confining layer in well log

If there is evidence of a confining layer, is the depth to ground water more than 20 feet above the **bottom** of the **lowest confining layer?** ____ YES ____ NO

____ information unavailable

7) Sanitary Setback:

____ (less than) 100 ft* __XX__ 100-120 ft ____ 120-200 ft ____ (greater than) 200 ft

* if less than 100 ft describe the site conditions:

8) Wellhead construction:

____ wellhead enclosed in a wellhouse

____ controlled access (describe):

Sanitary well cap and pitless adapter

____ other uses for wellhouse (describe):

____ no wellhead control

9) Surface seal:

____ 18 ft
__XX__ (less than) 18 ft (no Department of Ecology approval)
____ (less than) 18 ft (approved by Ecology, include documentation)
____ (greater than) 18 ft
____ depth of seal unknown
____ no surface seal

10) Annual rainfall (inches per year):

____ (less than) 10 in/yr ____ 10-25 in/yr __XX__ (greater than) 25 in/yr

PART IV: Mapping Your Ground Water Resource

1) Annual volume of water pumped: **6,683,000** (gallons)

How was this determined?

____ meter

XX estimated: ____ pumping rate (____)
____ pumping capacity (____)

XX other: **0.25 AC FT PER CONNECTION PER YEAR**

2) "Calculated Fixed Radius" estimate of ground water movement:
(see Instruction Packet)

6 month ground water travel time: **220** (ft)

1 year ground water travel time: **310** (ft)

5 year ground water travel time: **700** (ft)

10 year ground water travel time: **980** (ft)

Information available on length of screened/open interval?

XX YES ____ NO

Length of screened/open interval: **5** (ft)

3) Is there a river, lake, pond, stream, or other obvious surface water body within the 6 month time of travel boundary? ____ YES **XX** NO (mark and identify on map).

4) Is there a stormwater and/or wastewater facility, treatment lagoon, or holding pond located within the 6 month time of travel boundary? ____ YES **XX** NO (mark and identify on map).

Comments:

PART V: Assessment of Water Quality

1) Regional sources of risk to ground water:

Please indicate if any of the following are present within a circular area around your water source having a radius up to and including the five year ground water travel time:

	6 month	1 year	5 year	unknown
likely pesticide application				
stormwater injection wells				
other injection wells				
abandoned ground water well				
landfills, dumps, disposal areas				
known hazardous materials clean-up site				
water system(s) with known quality problems				
population density (greater than) 1 house/acre	XX	XX	XX	
residences commonly have septic tanks	XX	XX	XX	
wastewater treatment lagoons				
sites used for land application of waste				

Mark and identify on map any of the risks listed above which are located within the 6 month time of travel boundary? (*Please include a map of the wellhead and time of travel areas with this form. Please locate and mark any of the following.*)

If other recorded or potential sources of ground water contamination exist within the ten year time of travel circular zone around your water supply, please describe:

2) Source specific water quality records:

Please indicate the occurrence of any test results since 1986 that meet the following conditions: (Unless listed on assessment, MCLs are listed in assistance package.)

A. Nitrate: (Nitrate MCL = 10 mg/l)	YES	NO
Results greater than MCL		XX
(less than) 2 mg/liter nitrate		XX
2-5 mg/liter nitrate	XX	
(greater than) 5 mg/liter nitrate		XX
Nitrate sampling records unavailable		

B. VOCs: (VOC detection level 0.5 ug/l or 0.0005 mg/l.)	YES	NO
Results greater than MCL or SAL		XX
VOCs detected at least once		XX
VOC test performed but never detected	XX	
VOC sampling records unavailable		

C. EDB/DBCP:	YES	NO
(EDB MCL = 0.05 ug/l or 0.00005 mg/l. DBCP MCL = 0.2 ug/l or 0.0002 mg/l.)		
EDB/DBCP detected below MCL at least once		
EDB/DBCP detected above MCL at least once		
EDB/DBCP never detected		
EDB/DBCP tests required but not yet completed	XX	
EDB/DBCP tests not required		

D. Other SOCs: (pesticides and other synthetic organic chemicals)	YES	NO
Other SOCs detected		XX
Other SOC tests performed but none detected*		XX
Other SOC tests not performed		

* If any SOCs in addition to EDB/DBCP were detected, please identify and date. If other SOC tests were performed, but no SOCs detected, list test methods here:

E. Bacterial Contamination:

	YES	NO
Any bacterial detection(s) in the past 3 years in samples taken from the source (not distribution sampling records).		XX
Has source (in past 3 years) had a bacteriological contamination problem found in distribution samples that was attributed to the source.		XX
Source sampling records for bacteria unavailable.		

PART VI: Geographic or Hydrologic Factors Contributing to a Non-Circular Zone of Contribution

The following questions will help identify those ground water systems which may not be accurately represented by the calculated fixed radius (CFR) method described in Part IV. For these sources, the CFR areas should be used as a preliminary delineation of the critical time of travel zones for that source. As a system develops its Wellhead Protection Plan for these sources, a more detailed delineation method should be considered.

1) Is there evidence of obvious hydrologic boundaries within the 10 year time of travel zone of the CFR? (Does the largest circle extend over a stream, river, lake, up a steep hillside, and/or over a mountain or ridge?

XX YES ____ NO

Describe with references to map produced in Part IV:

A Wetland

2) Aquifer Material:

A) Does the drilling log, well log or other geologic/engineering reports identify that the well is located in an area where the underground conditions are identified as fractured rock and/or basalt terrain?

____ YES XX NO

B) Does the drilling log, well log or other geologic/engineering reports indicate that the well is located in an area where the underground conditions are primarily identified as coarse sand and gravel?

____ YES XX NO

3) Is the source located in an aquifer with a high horizontal flow rate? (These can include sources located on flood plains of large rivers, artesian wells with high water pressure, and/or shallow flowing wells and springs.)

____ YES __XX_ NO

4) Are there other high capacity wells (agricultural, municipal and/or industrial) located within the CFRs?

a) Presence of ground water extraction wells removing more than approximately 500 gal/min within . . .

	YES	NO	unknown
6 month travel time		XX	
6 month -1 year travel time		XX	
1-5 year travel time		XX	
5-10 year travel time		XX	

b) Presence of ground water recharge wells (dry wells) or heavy irrigation within . . .

	YES	NO	unknown
1 year travel time		XX	
1-5 year travel time		XX	
5-10 year travel time		XX	

Please identify or describe additional hydrologic or geographic conditions that you believe may affect the shape of the zone of contribution for this source. Where possible, reference them to locations on the map produced in Part IV.

Suggestions and Comments

Did you attend one of the susceptibility workshops?	YES	NO
Did you find it useful?	YES	NO
Did you seek outside assistance to complete the assessment?	YES	NO

This form and instruction packet are still in the process of development. Your comments, suggestions and questions will help us upgrade and improve this assessment form. If you found particular sections confusing or problematic please let us know. How could this susceptibility assessment be improved or made clearer? Did the instruction package help you find the information needed to complete the assessment? How much time did it take you to complete the form? Were you able to complete the assessment without additional/outside expertise? Do you feel the assessment was valuable as a learning experience? Any other comments or constructive criticisms you have would be appreciated.

Ground Water Contamination
Susceptibility Assessment Survey Form
Version 2.2

IMPORTANT! Please complete one form for each ground water source (well, wellfield, spring) used in your water system. Photocopy as necessary.

PART I: System Information

Well owner/manager: **American Water Resources Mitch Myers Operations Manager**

Water system name: **Lazy Acres #351**

County: **Thurston**

Water system number: **46441K** Source Number: **SO2**

Well depth: **115** (ft.) (*From WFI form*)

Source name: **Well #2**

WA well identification tag number: ____ ____ ____ - ____ ____ ____

____ well not tagged

Number of connections (ERU's):	**82**	Population served:	**246**
Township:	**17N**	Range:	**02W**
Section:	**04**	1/4 1/4 Section:	**NE/SW**
Latitude/longitude (if available):	**N 46° 59' 15"** /		**W 122° 56' 26"**

How was lat./long. determined?

____ global positioning device ____ survey **XX** topographic map
____ other: ____

- Please refer to Assistance Packet for details and explanations of all questions in Parts II through V.

PART II: Well Construction and Source Information

1) Date well originally constructed: **07** / **02** / **73** month/day/year
last reconstruction: ____ / ____ / ____ month/day/year

____ information unavailable

2) Well driller: **Mykol Drilling**

____ well driller unknown

3) Type of well:

XX	**Drilled:**	____	rotary	____	bored	XX	cable (percussion)	____	**Dug**
____	**Other:**	____	spring(s)	____	lateral collector (Ranney)				
		____	driven	____	jetted	____	other:		

Additional Comments:

4) Well report available? XX YES (attach copy to form) ____ NO

If no well log is available, please attach any other records documenting well construction; e.g. boring logs, "as built" sheets, engineering reports, well reconstruction logs.

5) Average pumping rate: 38 (gallons/min)

Source of information: **WFI**

If not documented, how was pumping rate determined?

____ Pumping rate unknown

6) Is this source treated? ____ YES XX NO

If so, what type of treatment:

____ disinfection ____ filtration ____ carbon filter ____ air stripper ____ other

Purpose of treatment (describe materials to be removed or controlled by treatment):

7) If source is chlorinated, is a chlorine residual maintained: ____ YES ____ NO

Residual level: ____ (*At the point closest to the source.*)

PART III: Hydrogeologic Information

1) Depth to top of open interval: [check one]

___ (less than) 20 ft ___ 20-50 ft ___ 50-100 ft **XX** 100-200 ft ___ (greater than) 200 ft
___ information unavailable

2) Depth to ground water (static water level):

XX (less than) 20 ft ___ 20-50 ft ___ 50-100 ft ___ (greater than) 100 ft
___ flowing well/spring (artesian)

How was water level determined?

XX well log ___ other: _____

___ depth to ground water unknown

3) If source is a flowing well or spring, what is the confining pressure:

___ psi (pounds per square inch)
or
___ feet above wellhead

4) If source is a flowing well or spring, is there a surface impoundment, reservoir, or catchment associated with this source: ___ YES ___ NO

5) Wellhead elevation (height above mean sea level): **194** (ft)

How was elevation determined? **XX** topographic map ___ Drilling/Well Log ___ altimeter

___ other: _____

___ information unavailable

6) Confining layers: (This can be completed only for those sources with a drilling log, well log or geologic report describing subsurface conditions. Please refer to assistance package for example.)

___ evidence of a confining layer in well log

XX no evidence of a confining layer in well log

If there is evidence of a confining layer, is the depth to ground water more than 20 feet above the **bottom** of the **lowest confining layer?** ___ YES ___ NO

___ information unavailable

7) Sanitary Setback:

____ (less than) 100 ft* __XX__ 100-120 ft ____ 120-200 ft ____ (greater than) 200 ft

* if less than 100 ft describe the site conditions:

8) Wellhead construction:

____ wellhead enclosed in a wellhouse

____ controlled access (describe):

Sanitary well cap and pitless adapter

____ other uses for wellhouse (describe):

____ no wellhead control

9) Surface seal:

____ 18 ft
__XX__ (less than) 18 ft (no Department of Ecology approval)
____ (less than) 18 ft (approved by Ecology, include documentation)
____ (greater than) 18 ft
____ depth of seal unknown
____ no surface seal

10) Annual rainfall (inches per year):

____ (less than) 10 in/yr ____ 10-25 in/yr __XX__ (greater than) 25 in/yr

PART IV: Mapping Your Ground Water Resource

1) Annual volume of water pumped: 6,683,000 (gallons)

How was this determined?

____ meter

XX estimated: ____ pumping rate (____)
____ pumping capacity (____)

XX other: 0.25 AC FT PER CONNECTION PER YEAR

2) "Calculated Fixed Radius" estimate of ground water movement:
(see Instruction Packet)

6 month ground water travel time: 220 (ft)

1 year ground water travel time: 310 (ft)

5 year ground water travel time: 700 (ft)

10 year ground water travel time: 980 (ft)

Information available on length of screened/open interval?

____ YES XX NO

Length of screened/open interval: ____ (ft)

3) Is there a river, lake, pond, stream, or other obvious surface water body within the 6 month time of travel boundary? ____ YES XX NO (mark and identify on map).

4) Is there a stormwater and/or wastewater facility, treatment lagoon, or holding pond located within the 6 month time of travel boundary? ____ YES XX NO (mark and identify on map).

Comments:

PART V: Assessment of Water Quality

1) Regional sources of risk to ground water:

Please indicate if any of the following are present within a circular area around your water source having a radius up to and including the five year ground water travel time:

	6 month	1 year	5 year	unknown
likely pesticide application				
stormwater injection wells				
other injection wells				
abandoned ground water well				
landfills, dumps, disposal areas				
known hazardous materials clean-up site				
water system(s) with known quality problems				
population density (greater than) 1 house/acre	XX	XX	XX	
residences commonly have septic tanks	XX	XX	XX	
wastewater treatment lagoons				
sites used for land application of waste				

Mark and identify on map any of the risks listed above which are located within the 6 month time of travel boundary? (*Please include a map of the wellhead and time of travel areas with this form. Please locate and mark any of the following.*)

If other recorded or potential sources of ground water contamination exist within the ten year time of travel circular zone around your water supply, please describe:

2) Source specific water quality records:

Please indicate the occurrence of any test results since 1986 that meet the following conditions: (Unless listed on assessment, MCLs are listed in assistance package.)

A. Nitrate: (Nitrate MCL = 10 mg/l)	YES	NO
Results greater than MCL		XX
(less than) 2 mg/liter nitrate		XX
2-5 mg/liter nitrate	XX	
(greater than) 5 mg/liter nitrate		XX
Nitrate sampling records unavailable		

B. VOCs: (VOC detection level 0.5 ug/l or 0.0005 mg/l.)	YES	NO
Results greater than MCL or SAL		XX
VOCs detected at least once		XX
VOC test performed but never detected	XX	
VOC sampling records unavailable		

C. EDB/DBCP:	YES	NO
(EDB MCL = 0.05 ug/l or 0.00005 mg/l. DBCP MCL = 0.2 ug/l or 0.0002 mg/l.)		
EDB/DBCP detected below MCL at least once		
EDB/DBCP detected above MCL at least once		
EDB/DBCP never detected		
EDB/DBCP tests required but not yet completed	XX	
EDB/DBCP tests not required		

D. Other SOCs: (pesticides and other synthetic organic chemicals)	YES	NO
Other SOCs detected		XX
Other SOC tests performed but none detected*		XX
Other SOC tests not performed		

* If any SOCs in addition to EDB/DBCP were detected, please identify and date. If other SOC tests were performed, but no SOCs detected, list test methods here:

E. Bacterial Contamination:

	YES	NO
Any bacterial detection(s) in the past 3 years in samples taken from the source (not distribution sampling records).		XX
Has source (in past 3 years) had a bacteriological contamination problem found in distribution samples that was attributed to the source.		XX
Source sampling records for bacteria unavailable.		

PART VI: Geographic or Hydrologic Factors Contributing to a Non-Circular Zone of Contribution

The following questions will help identify those ground water systems which may not be accurately represented by the calculated fixed radius (CFR) method described in Part IV. For these sources, the CFR areas should be used as a preliminary delineation of the critical time of travel zones for that source. As a system develops its Wellhead Protection Plan for these sources, a more detailed delineation method should be considered.

1) Is there evidence of obvious hydrologic boundaries within the 10 year time of travel zone of the CFR? (Does the largest circle extend over a stream, river, lake, up a steep hillside, and/or over a mountain or ridge?

XX YES ____ NO

Describe with references to map produced in Part IV:

A Wetland

2) Aquifer Material:

A) Does the drilling log, well log or other geologic/engineering reports identify that the well is located in an area where the underground conditions are identified as fractured rock and/or basalt terrain?

____ YES XX NO

B) Does the drilling log, well log or other geologic/engineering reports indicate that the well is located in an area where the underground conditions are primarily identified as coarse sand and gravel?

____ YES XX NO

3) Is the source located in an aquifer with a high horizontal flow rate? (These can include sources located on flood plains of large rivers, artesian wells with high water pressure, and/or shallow flowing wells and springs.)

____ YES __XX__ NO

4) Are there other high capacity wells (agricultural, municipal and/or industrial) located within the CFRs?

a) Presence of ground water extraction wells removing more than approximately 500 gal/min within . . .

	YES	NO	unknown
6 month travel time		XX	
6 month -1 year travel time		XX	
1-5 year travel time		XX	
5-10 year travel time		XX	

b) Presence of ground water recharge wells (dry wells) or heavy irrigation within . . .

	YES	NO	unknown
1 year travel time		XX	
1-5 year travel time		XX	
5-10 year travel time		XX	

Please identify or describe additional hydrologic or geographic conditions that you believe may affect the shape of the zone of contribution for this source. Where possible, reference them to locations on the map produced in Part IV.

Suggestions and Comments

Did you attend one of the susceptibility workshops?	YES	NO
Did you find it useful?	YES	NO
Did you seek outside assistance to complete the assessment?	YES	NO

This form and instruction packet are still in the process of development. Your comments, suggestions and questions will help us upgrade and improve this assessment form. If you found particular sections confusing or problematic please let us know. How could this susceptibility assessment be improved or made clearer? Did the instruction package help you find the information needed to complete the assessment? How much time did it take you to complete the form? Were you able to complete the assessment without additional/outside expertise? Do you feel the assessment was valuable as a learning experience? Any other comments or constructive criticisms you have would be appreciated.

Ground Water Contamination
Susceptibility Assessment Survey Form
Version 2.2

IMPORTANT! Please complete one form for each ground water source (well, wellfield, spring) used in your water system. Photocopy as necessary.

PART I: System Information

Well owner/manager: **American Water Resources Mitch Myers Operations Manager**

Water system name: **Lazy Acres #351**

County: **Thurston**

Water system number: **46441K** Source Number: **SO4**

Well depth: **68** (ft.) (*From WFI form*)

Source name: **Well #4**

WA well identification tag number: ____ ____ ____ - ____ ____ ____

____ well not tagged

Number of connections (ERU's): **82** Population served: **246**
Township: **17N** Range: **02W**
Section: **04** 1/4 1/4 Section: **NE/SW**
Latitude/longitude (if available): **N 46° 59' 10"** / **W 122° 56' 30"**

How was lat./long. determined?

____ global positioning device ____ survey **XX** topographic map
____ other:

- Please refer to Assistance Packet for details and explanations of all questions in Parts II through V.

PART II: Well Construction and Source Information

1) Date well originally constructed: **07** / **20** / **89** month/day/year
last reconstruction: ____ / ____ / ____ month/day/year

____ information unavailable

2) Well driller: **Carpenter Drilling**

____ well driller unknown

3) Type of well:

XX	**Drilled:**	____	rotary	____	bored	XX	cable (percussion)	____	**Dug**
____	**Other:**	____	spring(s)	____	lateral collector (Ranney)				
		____	driven	____	jetted	____	other:		

Additional Comments:

4) Well report available? XX YES (attach copy to form) ____ NO

If no well log is available, please attach any other records documenting well construction; e.g. boring logs, "as built" sheets, engineering reports, well reconstruction logs.

5) Average pumping rate: 61 (gallons/min)

Source of information: **WFI**

If not documented, how was pumping rate determined?

____ Pumping rate unknown

6) Is this source treated? ____ YES XX NO

If so, what type of treatment:

____ disinfection ____ filtration ____ carbon filter ____ air stripper ____ other

Purpose of treatment (describe materials to be removed or controlled by treatment):

7) If source is chlorinated, is a chlorine residual maintained: ____ YES ____ NO

Residual level: ____ *(At the point closest to the source.)*

PART III: Hydrogeologic Information

1) Depth to top of open interval: [check one]

____ (less than) 20 ft ____ 20-50 ft **XX** 50-100 ft ____ 100-200 ft ____ (greater than) 200 ft
____ information unavailable

2) Depth to ground water (static water level):

XX (less than) 20 ft ____ 20-50 ft ____ 50-100 ft ____ (greater than) 100 ft
____ flowing well/spring (artesian)

How was water level determined?

XX well log ____ other: _____

____ depth to ground water unknown

3) If source is a flowing well or spring, what is the confining pressure:

____ psi (pounds per square inch)
or
____ feet above wellhead

4) If source is a flowing well or spring, is there a surface impoundment, reservoir, or catchment associated with this source: ____ YES ____ NO

5) Wellhead elevation (height above mean sea level): **190** (ft)

How was elevation determined? **XX** topographic map ____ Drilling/Well Log ____ altimeter

____ other: _____

____ information unavailable

6) Confining layers: (This can be completed only for those sources with a drilling log, well log or geologic report describing subsurface conditions. Please refer to assistance package for example.)

____ evidence of a confining layer in well log

XX no evidence of a confining layer in well log

If there is evidence of a confining layer, is the depth to ground water more than 20 feet above the **bottom** of the **lowest confining layer?** ____ YES ____ NO

____ information unavailable

7) Sanitary Setback:

____ (less than) 100 ft* XX 100-120 ft ____ 120-200 ft ____ (greater than) 200 ft

* if less than 100 ft describe the site conditions:

8) Wellhead construction:

____ wellhead enclosed in a wellhouse

____ controlled access (describe):

Sanitary well cap and pitless adapter

____ other uses for wellhouse (describe):

____ no wellhead control

9) Surface seal:

XX 18 ft
____ (less than) 18 ft (no Department of Ecology approval)
____ (less than) 18 ft (approved by Ecology, include documentation)
____ (greater than) 18 ft
____ depth of seal unknown
____ no surface seal

10) Annual rainfall (inches per year):

____ (less than) 10 in/yr ____ 10-25 in/yr XX (greater than) 25 in/yr

PART IV: Mapping Your Ground Water Resource

1) Annual volume of water pumped: 6,683,000 (gallons)

How was this determined?

____ meter

XX estimated: ____ pumping rate ( )
____ pumping capacity ( )

XX other: 0.25 AC FT PER CONNECTION PER YEAR

2) "Calculated Fixed Radius" estimate of ground water movement:
(see Instruction Packet)

6 month ground water travel time: 220 (ft)

1 year ground water travel time: 310 (ft)

5 year ground water travel time: 700 (ft)

10 year ground water travel time: 980 (ft)

Information available on length of screened/open interval?

____ YES XX NO

Length of screened/open interval: 0 (ft)

3) Is there a river, lake, pond, stream, or other obvious surface water body within the 6 month time of travel boundary? ____ YES XX NO (mark and identify on map).

4) Is there a stormwater and/or wastewater facility, treatment lagoon, or holding pond located within the 6 month time of travel boundary? ____ YES XX NO (mark and identify on map).

Comments:

PART V: Assessment of Water Quality

1) Regional sources of risk to ground water:

Please indicate if any of the following are present within a circular area around your water source having a radius up to and including the five year ground water travel time:

	6 month	1 year	5 year	unknown
likely pesticide application				
stormwater injection wells				
other injection wells				
abandoned ground water well				
landfills, dumps, disposal areas				
known hazardous materials clean-up site				
water system(s) with known quality problems				
population density (greater than) 1 house/acre	XX	XX	XX	
residences commonly have septic tanks	XX	XX	XX	
wastewater treatment lagoons				
sites used for land application of waste				

Mark and identify on map any of the risks listed above which are located within the 6 month time of travel boundary? (*Please include a map of the wellhead and time of travel areas with this form. Please locate and mark any of the following.*)

If other recorded or potential sources of ground water contamination exist within the ten year time of travel circular zone around your water supply, please describe:

2) Source specific water quality records:

Please indicate the occurrence of any test results since 1986 that meet the following conditions: (Unless listed on assessment, MCLs are listed in assistance package.)

A. Nitrate: (Nitrate MCL = 10 mg/l)	YES	NO
Results greater than MCL		XX
(less than) 2 mg/liter nitrate		XX
2-5 mg/liter nitrate	XX	
(greater than) 5 mg/liter nitrate		XX
Nitrate sampling records unavailable		

B. VOCs: (VOC detection level 0.5 ug/l or 0.0005 mg/l.)	YES	NO
Results greater than MCL or SAL		XX
VOCs detected at least once		XX
VOC test performed but never detected	XX	
VOC sampling records unavailable		

C. EDB/DBCP:	YES	NO
(EDB MCL = 0.05 ug/l or 0.00005 mg/l. DBCP MCL = 0.2 ug/l or 0.0002 mg/l.)		
EDB/DBCP detected below MCL at least once		
EDB/DBCP detected above MCL at least once		
EDB/DBCP never detected		
EDB/DBCP tests required but not yet completed	XX	
EDB/DBCP tests not required		

D. Other SOCs: (pesticides and other synthetic organic chemicals)	YES	NO
Other SOCs detected		XX
Other SOC tests performed but none detected*		XX
Other SOC tests not performed		

* If any SOCs in addition to EDB/DBCP were detected, please identify and date. If other SOC tests were performed, but no SOCs detected, list test methods here:

E. Bacterial Contamination:

	YES	NO
Any bacterial detection(s) in the past 3 years in samples taken from the source (not distribution sampling records).		XX
Has source (in past 3 years) had a bacteriological contamination problem found in distribution samples that was attributed to the source.		XX
Source sampling records for bacteria unavailable.		

PART VI: Geographic or Hydrologic Factors Contributing to a Non-Circular Zone of Contribution

The following questions will help identify those ground water systems which may not be accurately represented by the calculated fixed radius (CFR) method described in Part IV. For these sources, the CFR areas should be used as a preliminary delineation of the critical time of travel zones for that source. As a system develops its Wellhead Protection Plan for these sources, a more detailed delineation method should be considered.

1) Is there evidence of obvious hydrologic boundaries within the 10 year time of travel zone of the CFR? (Does the largest circle extend over a stream, river, lake, up a steep hillside, and/or over a mountain or ridge?

____ YES XX NO

Describe with references to map produced in Part IV:

2) Aquifer Material:

A) Does the drilling log, well log or other geologic/engineering reports identify that the well is located in an area where the underground conditions are identified as fractured rock and/or basalt terrain?

____ YES XX NO

B) Does the drilling log, well log or other geologic/engineering reports indicate that the well is located in an area where the underground conditions are primarily identified as coarse sand and gravel?

____ YES XX NO

3) Is the source located in an aquifer with a high horizontal flow rate? (These can include sources located on flood plains of large rivers, artesian wells with high water pressure, and/or shallow flowing wells and springs.)

____ YES XX NO

4) Are there other high capacity wells (agricultural, municipal and/or industrial) located within the CFRs?

a) Presence of ground water extraction wells removing more than approximately 500 gal/min within . . .

	YES	NO	unknown
6 month travel time		XX	
6 month -1 year travel time		XX	
1-5 year travel time		XX	
5-10 year travel time		XX	

b) Presence of ground water recharge wells (dry wells) or heavy irrigation within . . .

	YES	NO	unknown
1 year travel time		XX	
1-5 year travel time		XX	
5-10 year travel time		XX	

Please identify or describe additional hydrologic or geographic conditions that you believe may affect the shape of the zone of contribution for this source. Where possible, reference them to locations on the map produced in Part IV.

Suggestions and Comments

Did you attend one of the susceptibility workshops?	YES	NO
Did you find it useful?	YES	NO
Did you seek outside assistance to complete the assessment?	YES	NO

This form and instruction packet are still in the process of development. Your comments, suggestions and questions will help us upgrade and improve this assessment form. If you found particular sections confusing or problematic please let us know. How could this susceptibility assessment be improved or made clearer? Did the instruction package help you find the information needed to complete the assessment? How much time did it take you to complete the form? Were you able to complete the assessment without additional/outside expertise? Do you feel the assessment was valuable as a learning experience? Any other comments or constructive criticisms you have would be appreciated.

FOSTER PLACE/LAZY STREET WELLHEAD PROTECTION AREA

Providing safe, reliable, affordable, and sustainable service.

October 12, 2022

Thurston County Community Planning
& Economic Development
2000 Lakeridge Dr SW, Bldg 1,
Olympia, WA 98502
Attn: Maya Teeple, Senior Planner
Maya.Teeple@co.thurston.wa.us

Subject: Lazy Acres 351 Water System - Notification of Wellhead Protection Area

Dear Ms. Teeple,

As part of our wellhead protection program and in accordance with state regulations (WAC 246-290-135), the Thurston PUD hereby informs you of the findings of our wellhead protection area delineation for the Lazy Acres 351 water system.

The enclosed map shows the 1, 5, and 10-year travel boundaries for our wellhead protection area, located in the SW ¼ of Section 4, Township 17N, Range 02W, WM. Please review the map and correlate it with your land-use planning. Any groundwater contamination that occurs within this wellhead protection area has a potential to reach our wells. It is of importance to us that all reasonable steps are taken to ensure that land use activities within this area do not contaminate our drinking water supply. Please return notification if you are aware of an unidentified potential source of contamination located within the wellhead protection area.

In addition, please note the location of the wellheads in the event of an emergency. Thank you for your cooperation and assistance in helping us ensure safe, clean drinking water. If you have any questions please don't hesitate to contact Thurston PUD.

Sincerely,

Douglas Piehl

Doug Piehl
District Engineer
(360) 890-6021
doug.piehl@thurstonpud.org

Thurston PUD

Providing safe, reliable, affordable, and sustainable service.

October 12, 2022

Thurston County Emergency
Management
9521 Tilley Road SW
Olympia, WA 98512

Subject: Lazy Acres 351 Water System - Notification of Wellhead Protection Area

To whom it may concern:

As part of our wellhead protection program and in accordance with state regulations (WAC 246-290-135), the Thurston PUD hereby informs you of the findings of our wellhead protection area delineation for the Lazy Acres 351 water system.

The enclosed map shows the 1, 5, and 10-year travel boundaries for our wellhead protection area, located in the SW ¼ of Section 4, Township 17N, Range 02W, WM. Please review the map and correlate it with your land-use planning. Any groundwater contamination that occurs within this wellhead protection area has a potential to reach our wells. It is of importance to us that all reasonable steps are taken to ensure that land use activities within this area do not contaminate our drinking water supply. Please return notification if you are aware of an unidentified potential source of contamination located within the wellhead protection area.

In addition, please note the location of the wellheads in the event of an emergency. Thank you for your cooperation and assistance in helping us ensure safe, clean drinking water. If you have any questions please don't hesitate to contact Thurston PUD.

Sincerely,

Douglas Piehl

Doug Piehl
District Engineer
(360) 890-6021
doug.piehl@thurstonpud.org

Thurston PUD

Providing safe, reliable, affordable, and sustainable service.

October 12, 2022

Thurston County Public Health and Social Services
2000 Lakeridge Dr. SW
Olympia, WA 98502
Attn: Stephanie Kenny, R.S.
stephanie.kenny@co.thurston.wa.us

Subject: Lazy Acres 351 Water System - Notification of Wellhead Protection Area

Dear Ms. Kenny,

As part of our wellhead protection program and in accordance with state regulations (WAC 246-290-135), the Thurston PUD hereby informs you of the findings of our wellhead protection area delineation for the Lazy Acres 351 water system.

The enclosed map shows the 1, 5, and 10-year travel boundaries for our wellhead protection area, located in the SW ¼ of Section 4, Township 17N, Range 02W, WM. Please review the map and correlate it with your land-use planning. Any groundwater contamination that occurs within this wellhead protection area has a potential to reach our wells. It is of importance to us that all reasonable steps are taken to ensure that land use activities within this area do not contaminate our drinking water supply. Please return notification if you are aware of an unidentified potential source of contamination located within the wellhead protection area.

In addition, please note the location of the wellheads in the event of an emergency. Thank you for your cooperation and assistance in helping us ensure safe, clean drinking water. If you have any questions please don't hesitate to contact Thurston PUD.

Sincerely,

Douglas Piehl

Doug Piehl
District Engineer
(360) 890-6021
doug.piehl@thurstonpud.org

Thurston PUD

Providing safe, reliable, affordable, and sustainable service.

October 12, 2022

Department of Ecology
SW Regional Office
300 Desmond Drive SE
Lacey, WA 98503

Subject: Lazy Acres 351 Water System - Notification of Wellhead Protection Area

To whom it may concern:

As part of our wellhead protection program and in accordance with state regulations (WAC 246-290-135), the Thurston PUD hereby informs you of the findings of our wellhead protection area delineation for the Lazy Acres 351 water system.

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Dear Property Owners:

Thurston PUD is required by the Washington Department of Health to develop a wellhead protection plan for the Lazy Acres 351 water system. Wellhead protection involves protecting the land area surrounding our wells in order to prevent contamination of our drinking water supply. Lazy Acres has wells located at 6711 Lazy ST SW, and at the corner of 70th Ave SW and Foster Drive SW, in Tumwater, WA. This letter is intended to inform you of the location of our well and protection zone, and to serve as a reminder that any hazardous material put onto the ground or into your septic system has the potential of contaminating our drinking water supply. Some potentially harmful activities to avoid are:

- Improper use of a septic system (dumping paint, household cleaners, or solvents into your septic system).
- Dumping motor oil, gasoline, antifreeze or similar fluids onto the ground.
- Heavy use of fertilizers and pesticides.
- Dumping or burying garbage in the ground.

Any unwanted or unused household hazardous materials (like those mentioned above) can be disposed of at the Hazardous & Toxics Reduction Station, 300 Desmond Dr SE, Lacey, WA 98503. Call (360) 407-6700 for details, hours of operation, etc.

We are fortunate to have a very good supply of high-quality water. It should be everyone's intent to keep it that way for our continued good use, and for the ones that come along after us. Thank you for following these guidelines. If you have any questions about this matter, please feel free to contact Kim Gubbe, Director of Planning and Compliance at Thurston PUD 360-357-8783 ext. 125.

Tips to Avoid Septic System Trouble:

- DO take leftover household chemicals to a hazardous waste collection center for disposal.
- DO practice water conservation. Repair dripping faucets and leaking toilets, run dishwashers and washing machines only when full.
- DO learn the location of your septic system and drain field.
- DO watch Washington State Department of Health Septic System Basics 101 at:
  - https://www.doh.wa.gov/CommunityandEnvironment/WastewaterManagement/SepticSystem/101SepticBasicsVideo
- DON'T allow anyone to drive or park over any part of the system. Areas should be left undisturbed with only a mowed grass cover. Roots from nearby trees or shrubs may clog and damage your drain lines.
- DON'T use commercial septic tank additives. These products usually do not help and some may hurt your system in the long run.
- DON'T poison your system by pouring chemicals down the drain. They can kill the beneficial bacteria that treat your wastewater.

What are Wellhead Protection areas?

A wellhead protection area (WHPA) is defined as the surface and subsurface area surrounding a well or wellfield that contaminants are likely to pass through and eventually reach the well(s). Most of the land in any WHPA is not owned or managed by the utility so emphasizing good stewardship and local regulations is important to protect the source and those who drink those who drink that well water

WHPA are divided into time periods. Each area represents the length of time it would take a molecule of water to travel from the area boundary to the well.

- The sanitary control area is the area immediately around the wellhead and requires protection from direct contamination.
- 1 Year includes the area that it would take a molecule of water 1 year or less to reach the well. This area is managed to protect drinking water supplies from viral, microbial, and direct chemical contamination. The 1- year area also includes the six-month time of travel.
- 5 years includes the area it would take a molecule of water 5 years or less to reach the well. This area is managed to control potential chemical contaminants.
- 10 years includes the area that it would take a molecule of water 10 years or less to reach the well. This area is managed to recognize the long-term source of drinking water and potential contamination of that source.
- A buffer zone is an area beyond the 10- year area that potentially includes the entire area that contributes water to the well source (zone of contribution). The buffer zone may include non-adjacent critical groundwater recharge areas.

What are threats facing wells?

There are a number of threats to wells, including:

- Improperly disposed of chemicals.
- Animal wastes.
- Pesticides.
- Human threats.
- Wastes injected underground.
- Naturally occurring substances.
  (Source: Safe Drinking Water Act.)

What are the costs of contamination?

Put simply, contamination is very expensive. It is considerably more cost-effective to implement a proactive pollution prevention program to guard against groundwater contamination rather than clean up contamination. Costs for a water system with a contaminated source can include purchase of water while locating an alternate supply, hydrogeologic studies to locate alternate source water, and remediation costs

Source: WA State DOH Source Water Protection Fact Sheet 331-634 7/31/2018

Parcel Number	Owner Name	Mailing Address	City	State	Zip Code	Site Address
55310000100	COX, FREDERICK E	6937 JERICHO LN SW	OLYMPIA	WA	98512	6937 JERICHO LN SW
55310000200	LAMONS, JOSEPH B & STELLA	6931 JERICHO LN SW	OLYMPIA	WA	98512	6931 JERICHO LN SW
55310000300	KETTER, ALEX	6925 JERICHO LN SW	OLYMPIA	WA	98512	6925 JERICHO LN SW
55310000400	LAZARO, BIENVENIDO M	6917 JERICHO LN SW	OLYMPIA	WA	98512-71	6917 JERICHO LN SW
55310000500	NAVA, ADAN MELGOZA	6911 JERICHO LN SW	OLYMPIA	WA	98512	6911 JERICHO LN SW
55310000600	FORSBERG, JENNIFER J	6907 JERICHO LN SW	OLYMPIA	WA	98512	6907 JERICHO LN SW
55310000700	LUND, BEN J & JENIFER R	6847 JERICHO LN SW	OLYMPIA	WA	98512	6847 JERICHO LN SW
55310000800	THEDE, JANICE	6841 JERICHO LN SW	OLYMPIA	WA	98512	6841 JERICHO LN SW
55310000900	CEPEDA, MARC R & AMY LYNN	PO BOX 5465	LACEY	WA	98509	6835 JERICHO LN SW
55310001000	AYLSWORTH, STEVEN	6829 JERICHO LN SW	OLYMPIA	WA	98512	6829 JERICHO LN SW
55310001100	ROSS, ERIC	6823 JERICHO LN SW	OLYMPIA	WA	98512	6823 JERICHO LN SW
55310001200	WILSON, JONATHAN P & RACHAEL M	6817 JERICHO LN SW	OLYMPIA	WA	98512	6817 JERICHO LN SW
55310001300	DAO, VI	6811 JERICHO LN SW	OLYMPIA	WA	98512	6811 JERICHO LN SW
55660000100	BUENZLI, JOHN J & MICHELLE R	3011 SHALOM CT	OLYMPIA	WA	98512	3011 SW SHALOM CT
55660000600	TALLEY, CHARLES	3012 SHALOM CT SW	OLYMPIA	WA	98512	3012 SW SHALOM CT
55660000700	WELLNER, DREW W	2612 OTIS ST SE	OLYMPIA	WA	98501	6825 SW SHALOM DR
55660002800	RHOADES, MARY M	6822 SHALOM DR SW	OLYMPIA	WA	98512	6822 SW SHALOM DR
55660002900	JOHNSON, KARLA	6830 SHALOM DR SW	OLYMPIA	WA	98512	6830 SW SHALOM DR
55660003000	PRESCOTT, JERRY L	6838 SHALOM DR SW	OLYMPIA	WA	98512	6838 SW SHALOM DR
55660003100	CHOATE, HELEN & JASON	6906 SHALOM DR SW	OLYMPIA	WA	98512	6906 SHALOM DR SW
55660003200	HANNAH, JUANITA FAYE	6918 SHALOM DR SW	OLYMPIA	WA	98512	6918 SW SHALOM DR
55660003300	GONZALEZ, ISRAEL	6930 SHALOM DR SW	OLYMPIA	WA	98512	6930 SHALOM DR SW
55310001400	MAKING A DIFFERENCE FOUNDATION	PO BOX 94754	SEATTLE	WA	98124	6805 JERICHO LN SW
55310001500	PLOCKI, THEODORE S & ROSEMARY	6745 JERICHO LN SW	OLYMPIA	WA	98512	6745 JERICHO LN SW
55310001600	THOMPSON, COREY ALLEN	6739 JERICHO LN SW	OLYMPIA	WA	98512	6739 JERICHO LN SW
55660002700	WOODS, STEPHANIE	6814 SHALOM DR SW	TUMWATER	WA	98512	6814 SW SHALOM DR
55310001700	ELLIOTT, ROBERT K	6733 JERICHO LN SW	OLYMPIA	WA	98512	6733 JERICHO LN SW
55310001800	TRINH, DONG T	6727 JERICHO LN SW	OLYMPIA	WA	98512	6727 JERICHO LN SW
55310001900	BAXTER, MARTIN & KIRSTEN	7123 CAVALIER LOOP SW	TUMWATER	WA	98512	6721 JERICHO LN SW
55310002000	LINTON, MARILYN J	6715 JERICHO ST SW	TUMWATER	WA	98512-12	6715 JERICHO LN SW
55310002200	BOGART, TOREY & KELLY	10438 TILLEY RD S	OLYMPIA	WA	98512	6714 JERICHO LN SW
55310002300	MORRIS, KEVIN	6720 JERICHO LN SW	OLYMPIA	WA	98512	6720 JERICHO LN SW
55310002400	NAKASONE, SONIA FUMIE	6726 JERICHO LN SW	OLYMPIA	WA	98512	6726 JERICHO LN SW
55310002500	KING, ASHLEY & SILAS	6732 JERICHO LN SW	OLYMPIA	WA	98512	6732 JERICHO LN SW
55310200000	HOSANNAH PARK HOMEOWNERS ASSN	PO BOX 14711	TUMWATER	WA	98511	UNKNOWN
12704310501	RYND, LORI S	2920 70TH AVE SW	OLYMPIA	WA	98512	2920 SW 70TH AVE
48630001500	JAMISON IV, WILLIAM A	6821 FOSTER DR SW	TUMWATER	WA	98512	6821 FOSTER DR SW
48630001600	PODOWICZ, KOLE & EMILY	6829 FOSTER DR SW	TUMWATER	WA	98512	6829 FOSTER DR SW
48630001700	SEDORE TRUSTEES, JAMES MORGAN &	6833 FOSTER DR SW	TUMWATER	WA	98512	6833 FOSTER DR SW
48630002000	WHITE, RICHARD J	6915 FOSTER DR SW	OLYMPIA	WA	98512	6915 FOSTER DR SW
48630002100	HABERLAND, TRENT	6919 FOSTER DR SW	OLYMPIA	WA	98512	6919 FOSTER DR SW
48630002200	TSCHURSIN, LUDMILA	3909 65TH ST	SACRAMEN	CA	95820	6923 FOSTER DR SW
55310002600	BRANDT, SANDRA L	6738 JERICHO LN SW	TUMWATER	WA	98512	6738 JERICHO LN SW
55310002700	THOMPSON, STEVEN K	68-1887 PAU NANI ST	WAIKOLOA	HI	96738-54	6744 JERICHO LN SW
55310002800	RIVERA, MATTHEW A & CYNTHIA L	6804 JERICHO LN SW	OLYMPIA	WA	98512	6804 JERICHO LN SW
55310002900	LEE, KIM	6810 JERICHO LN SW	OLYMPIA	WA	98512	6810 JERICHO LN SW

55310003000	WRYE, NATALIE	6816 JERICHO LN SW	OLYMPIA	WA	98512	6816 JERICHO LN SW
55310003100	GINTHER, JOSHUA	6822 JERICHO LN SW	OLYMPIA	WA	98512	6822 JERICHO LN SW
55310003200	VALDEZ, RICKY D & CHERYL A	6828 JERICHO LN SW	OLYMPIA	WA	98512	6828 JERICHO LN SW
55310003300	SWETT, GEOFFREY & COLLEEN KEEFE	2331 MUIRHEAD AVE NW	OLYMPIA	WA	98502	6834 JERICHO LN SW
55310003400	HALL, EDWARD S	PO BOX 15171	TUMWATER	WA	98511	6840 JERICHO LN SW
55310003500	SEVERS, CHARLIE M	6846 JERICHO LN SW	OLYMPIA	WA	98512	6846 JERICHO LN SW
55310003600	CARLSON, RENA F	6906 JERICHO LN SW	TUMWATER	WA	98512	6906 JERICHO LN SW
55310003700	ANDERSON, RACHEL A	6912 JERICHO LN SW	OLYMPIA	WA	98512	6912 JERICHO LN SW
55310003800	YOUNG, STEVE L	6918 JERICHO LN SW	OLYMPIA	WA	98512	6918 JERICHO LN SW
55310003900	CUELLAR, JOSE G	6924 JERICHO LN SW	OLYMPIA	WA	98512	6924 JERICHO LN SW
55310004000	COLEMAN, ERIN M	6930 JERICHO LN SW	OLYMPIA	WA	98512	6930 JERICHO LN SW
55310004100	IMOGENE DURANT REV TR	6936 JERICHO LN SW	OLYMPIA	WA	98512	6936 JERICHO LN SW
48640003900	MACAULEY, JASON M & MICHELLE M	2910 CHILDRESS CT SW	OLYMPIA	WA	98512	2910 CHILDRESS CT SW
48640004000	UNROE CO-TRUSTEE, ERNEST L	4000 BLACK LAKE BLVD	OLYMPIA	WA	98512	2916 CHILDRESS CT SW
48640004100	MYERS, MICHAEL F	2919 CHILDRESS CT SW	OLYMPIA	WA	98512	2919 CHILDRESS CT SW
48640004200	UNROE CO-TRUSTEE, ERNEST L	4000 BLACK LAKE BLVD	OLYMPIA	WA	98512	2913 CHILDRESS CT SW
48640004300	KELLY, KERRY MARIE	2907 CHILDRESS CT SW	TUMWATER	WA	98512	2907 CHILDRESS CT SW
55310002100	WENTZ-SCHIEFELBEIN, KATHERINE	6708 JERICHO LN SW	OLYMPIA	WA	98512	6708 JERICHO LN SW
55310100000	HOSANNAH PARK HOMEOWNERS ASSN	PO BOX 14801	TUMWATER	WA	98511	UNKNOWN
48630001400	BOYCE, STEVEN B & TERILEE	6817 FOSTER DR SW	OLYMPIA	WA	98512	6817 FOSTER DR SW
48640003700	MC MAHON, JOLEEN M	6635 FOSTER DR SW	OLYMPIA	WA	98512	6635 FOSTER DR SW
48640003800	COFFEY, KRISTIN JOI & RYAN PATRICK	2904 CHILDRESS CT SW	OLYMPIA	WA	98512	2904 CHILDRESS CT SW
48640004400	LOCKEN, DOUGLAS J & VICKY M	6731 FOSTER DR SW	TUMWATER	WA	98512	6731 FOSTER DR SW
48640003000	APGAR, STEPHANIE ALICE	6712 FOSTER DR SW	OLYMPIA	WA	98512	6712 FOSTER DR SW
48640003100	LEE TRUSTEE, MARGARET A	6630 FOSTER DR SW	OLYMPIA	WA	98512	6630 FOSTER DR SW
48640003200	CRAIG, MARY S	6622 FOSTER DR SW	TUMWATER	WA	98512	6622 FOSTER DR SW
48640003300	UNROE CO-TRUSTEE, ERNEST L	4000 BLACK LAKE BLVD	OLYMPIA	WA	98512	6610 FOSTER DR SW
48640003400	MORGAN, JAMES & JENNIFER	6607 FOSTER DR SW	TUMWATER	WA	98512	6607 FOSTER DR SW
48640003500	BENAVENTE, EUGENE J & KASHA L	6615 FOSTER DR SW	TUMWATER	WA	98512	6615 FOSTER DR SW
48640003600	HILBERG, TERESA L	6627 FOSTER DR SW	OLYMPIA	WA	98502	6627 FOSTER DR SW
48640004500	THURSTON, COUNTY OF	2000 LAKERIDGE DR SW	OLYMPIA	WA	98502	
48630000100	FOSTER PLACE HOMEOWNERS ASSOC	6841 FOSTER DR SW	TUMWATER	WA	98512	
48630000200	BENSHOOF, TRISHIA & JOHN	6932 FOSTER DR SW	TUMWATER	WA	98512	6932 FOSTER DR SW
48630000300	WASHBURN, ROGER G	6924 FOSTER DR SW	OLYMPIA	WA	98512	6924 FOSTER DR SW
48630000400	JOHNSTON, ALEC & JULIE A	8307 LIBBY RD NE	OLYMPIA	WA	98506	6908 FOSTER DR SW
48630000500	BROWN, LESLIE W	6840 FOSTER DR SW	TUMWATER	WA	98512	6840 FOSTER DR SW
48630000600	JOHNSON, KATHLEEN A	2837 FOSTER CT SW	OLYMPIA	WA	98512	2837 FOSTER CT SW
48630000700	NASH, THEODORE D & SALLY E	2823 FOSTER CT SW	OLYMPIA	WA	98512	2823 FOSTER CT SW
48630000800	DAHLHOFF, GAIL L	2819 FOSTER CT SW	OLYMPIA	WA	98512	2819 FOSTER CT SW
48630000900	MODUN, GARY A & DOROTHY A	2813 FOSTER CT SW	TUMWATER	WA	98512	2813 FOSTER CT SW
48630001000	RICKLICK, DAN	2818 FOSTER CT SW	TUMWATER	WA	98512	2818 FOSTER CT SW
48630001100	RAUPP, KENNETH E & JEAN M	2824 FOSTER CT SW	OLYMPIA	WA	98512	2824 FOSTER CT SW
48630001200	KENNEDY, LYNN	6748 FOSTER DR SW	TUMWATER	WA	98512	6748 FOSTER DR SW
48630001300	BOURLAND, AARON & LAUREN	6745 FOSTER DR SW	TUMWATER	WA	98512	6745 FOSTER DR SW
48630001800	HILDRETH, EDWARD G	6841 FOSTER DR SW	TUMWATER	WA	98512	6841 FOSTER DR SW
48630002300	MCNEAL, KELLY K	6931 FOSTER DR SW	OLYMPIA	WA	98512	6931 FOSTER DR SW
48630100000	THURSTON COUNTY	2000 LAKERIDGE DR SW	OLYMPIA	WA	98502	

48640002500	BOLSER, CURTIS A JR	2835 CHILDRESS CT SW	OLYMPIA	WA	98512	2835 CHILDRESS CT SW
48640002600	HEWELL, DOUGLAS M	4425 78TH AVE SW	OLYMPIA	WA	98512-74	2829 CHILDRESS CT SW
48640002700	ERICSSON, STEVEN K & LORI M	2823 CHILDRESS CT SW	OLYMPIA	WA	98512	2823 CHILDRESS CT SW
48640002800	HENRICKSON, KATHLEEN E	615 W 21ST ST	VANCOUVEI	WA	98660	2824 CHILDRESS CT SW
48630001900	WAGNER, STEVEN LYLE & CYNTHIA ANN	6907 FOSTER DR SW	OLYMPIA	WA	98512	6907 FOSTER DR SW
48630002400	WINSTEDT, RACHEL RUTH MARY	6943 FOSTER DR SW	TUMWATER	WA	98512	6943 FOSTER DR SW
12704310400	WELLS, JASON S	8749 82ND LN SE	OLYMPIA	WA	98513-56	2726 70TH AVE SW
12704310401	HOSCH, STEPHEN J	6824 LAKESIDE ST SW	OLYMPIA	WA	98512	6816 LAZY ST SW
58720000100	HANNA, DEAN W	6911 LAZY ST SW	TUMWATER	WA	98512	6911 LAZY ST SW
58720000200	SPURGEON, JOYCE	6903 LAZY ST SW	TUMWATER	WA	98512	6903 LAZY ST SW
58720000200	SPURGEON, JOYCE	6903 LAZY ST SW	TUMWATER	WA	98512	6903 LAZY ST SW
58720000400	FOX, DAVID D & CHRISTINE M	6817 LAZY ST SW	TUMWATER	WA	98512	6817 LAZY ST SW
58720000401	POE, KAISA B & PERVIS DAVID	4521 SW WANAMAKER RD	TOPEKA	KS	66610-13	6813 LAZY ST SW
58720000402	SAEGER, NICHOLE L & JON F	6809 LAZY ST SW	OLYMPIA	WA	98512	6809 LAZY ST SW
58720000500	NEVILLE, JONATHAN L & AMANDA J	6805 LAZY ST SW	TUMWATER	WA	98512	6805 LAZY ST SW
58720000501	THURSTON COUNTY PUBLIC UTILITY DIS	1230 RUDDELL RD SE	LACEY	WA	98503	6711 LAZY ST SW
58720000600	GIBSON, TANNER G	6703 LAZY ST SW	TUMWATER	WA	98512	6707 LAZY ST SW
58720000700	GIBSON, TANNER G	6703 LAZY ST SW	TUMWATER	WA	98512	6703 LAZY ST SW
58720000800	MACKEY, DORIS M	6617 LAZY ST SW	OLYMPIA	WA	98512	6617 LAZY ST SW
58720000900	PITSAROFF, ERIC J	6613 LAZY ST SW	TUMWATER	WA	98512	6613 LAZY ST SW
58720001000	CLARK, LAUREN E & PATRICIA J	6609 LAZY ST SW	TUMWATER	WA	98512	6609 LAZY ST SW
58720001100	JOB, LAVONNA	6605 LAZY ST SW	TUMWATER	WA	98512	6605 LAZY ST SW
58720001200	SANDERS, BRUCE G & LYDIA J	2720 VACATION DR SW	OLYMPIA	WA	98512	2720 VACATION DR SW
58720001300	FREETO, DOUGLAS N & NICOLE L	2716 VACATION DR SW	OLYMPIA	WA	98512	2716 SW VACATION DR
58720001400	MCGINNIS, MEGAN A	2712 VACATION DR SW	OLYMPIA	WA	98512	2712 SW VACATION DR
58720001900	LINDER, KRISTIN M	2717 VACATION DR SW	OLYMPIA	WA	98512	2713 SW VACATION DR
58720002000	LINDER, KRISTIN M	2717 VACATION DR SW	OLYMPIA	WA	98512	2717 SW VACATION DR
58720002100	BOGGS, DWAYNE E	6612 LAZY ST SW	TUMWATER	WA	98512	6612 LAZY ST SW
58720002200	TREPTOW, ARTHUR & ANGELA	6616 LAZY ST SW	TUMWATER	WA	98512	6616 LAZY ST SW
58720002300	NYGREN, CONRAD	PO BOX 14003	TUMWATER	WA	98511	2714 67TH CT SW
58720002400	WELLS, RAYMOND E	5025 62ND AVE SW	OLYMPIA	WA	98512-19	2710 SW 67TH CT
58720002900	JOHANSEN, KIMBERLEE K	2711 67TH COURT SW	OLYMPIA	WA	98512	2711 SW 67TH CT
58720003000	GREEN, CRAIG E	2715 67TH CT SW	TUMWATER	WA	98512	2715 SW 67TH CT
58720003100	WYNIA, JOYCE M	2719 67TH CT SW	TUMWATER	WA	98512	2719 67TH CT SW
58720003200	ROBBINS, SHARON DIANE	6712 LAZY ST SW	TUMWATER	WA	98512	6712 LAZY ST SW
58720003300	ROBBINS, DIANE L	2716 68TH CT SW	OLYMPIA	WA	98512	2716 68TH CT SW
58720003400	MACDONALD, BRIAN	2712 68TH CT SW	OLYMPIA	WA	98512	2712 SW 68TH CT
58720003900	GERTSON, HARVEY G	2713 68TH CT SW	OLYMPIA	WA	98512	2713 SW 68TH CT
58720004000	LAURALEE H MOUNTS REV TRUST	2717 68TH CT SW	TUMWATER	WA	98512	2717 SW 68TH CT
58720004100	CLAUDIO, ANTHONY THOMAS	6810 LAZY ST SW	TUMWATER	WA	98512	6810 LAZY ST SW
58720004200	MC CLAFLIN, WESLEY L	6814 LAZY ST SW	TUMWATER	WA	98512	6814 LAZY ST SW
58720004300	CLARK, DAN L	6818 LAZY ST SW	TUMWATER	WA	98512	6818 LAZY ST SW
58720004400	ROTAR, ANTHONY	6904 LAZY ST SW	OLYMPIA	WA	98512-71	6904 LAZY ST SW
58720004500	SOPRASEUTH, KAM	6910 LAZY ST SW	TUMWATER	WA	98512	6910 LAZY ST SW
58720004600	MUNROE, HOLLY	PO BOX 2534	OLYMPIA	WA	98507	2738 SW 70TH AVE
12704310300	BRISLAWN, MICHAEL J & JANET E	PO BOX 14354	TUMWATER	WA	98511	6911 LIVELY ST SW
12704310301	SOUTHARD, MICHAEL & RACHAEL	2710 70TH AVE SW	OLYMPIA	WA	98512	2710 70TH AVE SW

12704310302	REEVES, DAMIAN	6927 LIVELY ST SW	TUMWATER	WA	98512	6927 LIVELY ST SW
12704310200	LEE, RAE J	6845 LIVELY ST SW	TUMWATER	WA	98512	6845 LIVELY ST SW
58720001500	BARNES TAYLOR TRUSTEE, BARBARA	2704 VACATION DR SW	OLYMPIA	WA	98512	2807 SW VACATION DR
58720001600	TAYLOR, BARBARA BARNES	2704 VACATION DR SW	OLYMPIA	WA	98512	2704 SW VACATION DR
58720001700	MONTELLO, JEFF C & SUSAN J	2705 SW VACATION DR	TUMWATER	WA	98502	2705 SW VACATION DR
58720001800	KIRKLAND, NOAH D & MEGAN N	2709 VACATION DR SW	OLYMPIA	WA	98512	2709 VACATION DR SW
58720002500	STARLINGS, JAKOB	2706 67TH CT SW	OLYMPIA	WA	98512	2706 SW 67TH CT
58720002600	CLEMENT, KARI & MICHAEL	6641 LIVELY ST SW	TUMWATER	WA	98512	6641 LIVELY ST SW
58720002700	SANDRA I GRAY LIVING TRUST	408 T ST SE	TUMWATER	WA	98501	6709 LIVELY ST SW
58720002800	WITHERS, KARA M	2707 67TH CT SW	OLYMPIA	WA	98512	2707 SW 67TH CT
58720003500	MORAN, JAMES ALEXANDER	2708 68TH CT SW	OLYMPIA	WA	98512	2708 68TH CT SW
58720003600	FARM RENTALS LLC	5505 FADLING RD SW	OLYMPIA	WA	98512	6729 LIVELY ST SW
58720003700	MILLER, DANIEL M & TERRI L	2705 68TH CT SW	OLYMPIA	WA	98512	2705 SW 68TH CT
58720003800	RODEEN, JENNIFER KRISTINE	2709 68TH CT SW	OLYMPIA	WA	98512	2709 68TH CT SW
34120000100	PETERSON, LINDA M	6925 BEL MOR CT SW	TUMWATER	WA	98512	6925 BEL MOR CT SW
12704420100	ZACHARIAS, MICHELLE R	6702 LIVELY ST SW	TUMWATER	WA	98512	6702 LIVELY ST SW
12704421000	CURTISS M MONSON AND CYNTHIA A M	2905 CARPENTER RD SE	LACEY	WA	98503	2622 70TH AVE SW
34120000200	HUGHES, BRIAN R & RACHEL D	6917 BEL MOR CT SW	TUMWATER	WA	98501	6917 BEL MOR CT SW
34120000300	OSTER, MARK & MICHELENE	PO BOX 14566	TUMWATER	WA	98511	6909 BEL MOR CT SW
34120000400	LANGFORD, TYLER & MEGHAN	6903 BEL MOR CT SW	TUMWATER	WA	98512	6903 BEL MOR CT SW
34120000500	CLARK, JEFFREY W & DIANA L	6827 BEL MOR CT SW	TUMWATER	WA	98512	6827 BEL MOR CT SW
34120000600	RUMSEY, WILLIAM S	6821 BEL MOR CT SW	TUMWATER	WA	98512	6821 BEL MOR CT SW
34120000700	WRZESINSKI, LANCE	6813 BEL MOR CT SW	TUMWATER	WA	98512	6813 BEL MOR CT SW
34120000800	GONZALEZ III, MARYBETH & JOSE M	6805 BEL MOR CT SW	TUMWATER	WA	98512	6805 BEL MOR CT SW
34120000900	HARPER, STEPHEN M	6729 BEL MOR ST SW	TUMWATER	WA	98512	6729 BEL MOR CT SW
34120001000	THOMPSON, WENDY	6725 BEL MOR CT SW	TUMWATER	WA	98512	6725 BEL MOR CT SW
34120001100	COLLINS, CHRISTOPHER S & JENNIFER L	PO BOX 282	DUPONT	WA	98327	6730 BEL MOR CT SW
34120001200	HEMPLEMAN, BEVERLY N	PO BOX 14656	TUMWATER	WA	98511	6800 BEL MOR CT SW
34120001300	FELIX, SHERRI G	6806 BEL MOR CT SW	TUMWATER	WA	98512	6806 BEL MOR CT SW
34120001400	ELLIS, SAMUEL B & LORI A	3816 GULL HARBOR RD NE	OLYMPIA	WA	98506	6814 BEL MOR CT SW
34120001500	RUTH G GRANT REVOCABLE LIVING TRU	6824 BEL MOR CT SW	TUMWATER	WA	98512	6824 BEL MOR CT SW
34120001600	RUMSEY, COLLEEN	6830 BEL MOR CT SW	TUMWATER	WA	98512	6830 BEL MOR CT SW
51030003000	BATSON, BRUCE R	6721 GOLDCREEK DR SW	TUMWATER	WA	98512	6721 GOLDCREEK DR SW
51030003100	EMMONS, WILLIAM V & CAROL A	6723 GOLDCREEK DR SW	TUMWATER	WA	98512	6723 GOLDCREEK DR SW
51030003200	SONDERBY, MICHAEL P & NATALIE	6801 GOLDCREEK DR SW	TUMWATER	WA	98512	6801 GOLDCREEK DR SW
51030003300	DERRICK, RICHARD & HEATHER	6805 GOLDCREEK DR SW	TUMWATER	WA	98512	6805 GOLDCREEK DR SW
51030003400	MUNGER, REX N	6809 GOLDCREEK DR SW	TUMWATER	WA	98512	6809 GOLDCREEK DR SW
51030003500	MICHAEL & JACQUELYN OSWALD REV T	6811 GOLDCREEK DR SW	TUMWATER	WA	98512	6811 GOLDCREEK DR SW
54920000100	DOCTER, AUSTIN J & MARIE A	2635 VACATION DR SW	OLYMPIA	WA	98512	2635 SW VACATION DR
54920000101	WESSELIUS, JEFFREY ALLEN RICHARD	6614 LIVELY ST SW	TUMWATER	WA	98512	6614 LIVELY ST SW
54920000200	REBITZER, HANS TILO	2627 VACATION DR SW	OLYMPIA	WA	98502	2627 SW VACATION DR
54920002001	BARNES TAYLOR TRUSTEE, BARBARA	2704 VACATION DR SW	OLYMPIA	WA	98512	
54920002000	HYSLOP, WILLIAM & WENDE	2632 VACATION DR SW	OLYMPIA	WA	98512	2632 SW VACATION DR
79900001700	BARNES TAYLOR TRUSTEE, BARBARA	2704 VACATION DR SW	OLYMPIA	WA	98512	2704 SW VACATION DR
79900001602	SALING, DALE S	6112 KIRSOP RD SW	TUMWATER	WA	98512	6112 KIRSOP RD SW
79900001800	LUBLINER, NATHAN R & BRANDI J	6525 LAZY ST SW	OLYMPIA	WA	98512-71	6525 LAZY ST SW
79900001801	CASTLE MONARCH LLC	7225 FAIRVIEW RD SW	OLYMPIA	WA	98512	6519 LAZY ST SW

79900001601	TAFOYA, DAVID	6120 KIRSOP RD SW	OLYMPIA	WA	98512	6120 KIRSOP RD SW
12704330101	JONES, SIDNEY T & SUZANNE	3737 71ST CT SW	OLYMPIA	WA	98512	2719 70TH AVE SW
12704330200	PHILLIPS, MARK & TAMMY	7111 LAZY CT SW	TUMWATER	WA	98512	7111 LAZY CT SW
12704330201	DUNBAR, LAWRENCE P	7021 LAZY CT SW	TUMWATER	WA	98512	7021 LAZY CT SW
12704330202	LORD, ROBERT A & LINDA A	855 TROSPER RD SW # 108 PM	TUMWATER	WA	98512	7128 LAZY CT SW
35310000100	CONTINENTAL HOMES CORP	1868 STATE AVE NE	OLYMPIA	WA	98506	7011 TO 7017 LAZY CT S
35310000200	CONTINENTAL HOMES CORP	1868 STATE AVE NE	OLYMPIA	WA	98506	7001 TO 7003 LAZY CT S
35310000300	CONTINENTAL HOMES CORP	1868 STATE AVE NE	OLYMPIA	WA	98506	7025 TO 7027 LAZY CT S
35310000400	CONTINENTAL HOMES CORP	1868 STATE AVE NE	OLYMPIA	WA	98506	7029 TO 7031 LAZY CT S
35310000500	CONTINENTAL HOMES CORP	1868 STATE AVE NE	OLYMPIA	WA	98506	7033 TO 7035 LAZY CT S
35310000600	CONTINENTAL HOMES CORP	1868 STATE AVE NE	OLYMPIA	WA	98506	7039 TO 7041 LAZY CT S
35310000700	CONTINENTAL HOMES CORP	1868 STATE AVE NE	OLYMPIA	WA	98506	7043 TO 7045 LAZY CT S
35310003200	KAELIN, TYLER J & BREANA	2803 71ST LN SW	OLYMPIA	WA	98512	2803 71ST LN SW
35310100000	BLACK HILLS HOMEOWNERS ASSOCIATI	PO BOX 8313	BONNEY LAI	WA	98391	7048 MIRASETT ST SW
35310300000	BLACK HILLS HOMEOWNERS ASSOCIATI	PO BOX 8313	BONNEY LAI	WA	98391	2811 71ST LN SW
35310400000	BLACK HILLS HOMEOWNERS ASSOCIATI	PO BOX 8313	BONNEY LAI	WA	98391	UNKNOWN
61820000100	JESERNIG, CATHY & JIM	7615 MANNING LN NW	OLYMPIA	WA	98502	7002 LAZY CT SW
61820000200	MC KEOWN, DENISE A	7014 LAZY CT SW	TUMWATER	WA	98512	7014 LAZY CT SW
61820000300	HP WASHINGTON I LLC	120 S RIVERSIDE PLZ STE 200(	CHICAGO	IL	60606	7022 LAZY CT SW
61820000400	LOWE, GARRETT A & MISTY R	7030 LAZY CT SW	TUMWATER	WA	98512	7030 LAZY CT SW
61820000500	WAKELIN-MCDANIEL, JASON & AMBER	7036 LAZY CT SW	TUMWATER	WA	98512	7036 LAZY CT SW
61820000600	SUMMERVILLE, JENNIFER L	7038 LAZY CT SW	TUMWATER	WA	98512	7038 LAZY CT SW
61820000700	GOINGS, TODD	7042 LAZY CT SW	TUMWATER	WA	98512	7042 LAZY CT SW
61820000800	HOFFMAN, DENICE	7044 LAZY CT SW	TUMWATER	WA	98512	7044 LAZY CT SW
61820000900	HOLLAND, JAMES S	7040 LAZY CT SW	OLYMPIA	WA	98512	7046 LAZY CT SW
62490006300	DURAND, MARVIN R & BRENDA L	7014 MIRASETT ST SW	TUMWATER	WA	98512	7014 MIRASETT ST SW
62490006400	RAMOS, KEVIN M & SOLEDAD M	7018 MIRASETT ST SW	TUMWATER	WA	98512	7018 MIRASETT ST SW
62490006500	ANDERSON, RONALD & KRISTINA	7020 MIRASETT ST SW	TUMWATER	WA	98512	7020 MIRASETT ST SW
62490006600	RONGEN, KECIA	7024 MIRASETT ST SW	TUMWATER	WA	98512	7024 MIRASETT ST SW
62490006700	ELLISON, BLAKE A & ERIN M	7028 MIRASETT ST SW	TUMWATER	WA	98512	7028 MIRASETT ST SW
62490006800	RANES II, WILLIAM J	PO BOX 721	CAMAS	WA	98607	7032 MIRASETT ST SW
62490006900	SFR ACQUISITIONS 3 LLC	120 S RIVERSIDE PLZ STE 200(	CHICAGO	IL	60606	7036 MIRASETT ST SW
62490007000	FLATOW, JOAN A	7038 MIRASETT ST SW	TUMWATER	WA	98512	7038 MIRASETT ST SW
62490007100	NELSON, KEITH J & JESSICA M	PO BOX 784	EAST OLYMI	WA	98540	7042 MIRASETT ST SW
62490007200	SCHMIDT, STEVE & KELLY	7044 MIRASETT ST SW	TUMWATER	WA	98512	7044 MIRASETT ST SW
62490007300	KENDRICK, SHERYL M & GARY L	7046 MIRASETT ST SW	TUMWATER	WA	98512	7046 MIRASETT ST SW
62490300000	MIRASETT HOMEOWNER'S ASSOCIATIO	6945 SOUTHWICK CT SW	OLYMPIA	WA	98512	7001 TO 7002 W SOUTH
62490000100	BUCK, PAMELA	2808 71ST WAY SW	OLYMPIA	WA	98512	2808 71ST WAY SW
62490000200	MACDONALD, KATHRYN	2804 71ST WAY SW	OLYMPIA	WA	98512	2804 71ST WAY SW
62490000300	SERHAN, HABIB AZIZ	7043 MIRASETT ST SW	TUMWATER	WA	98512	7043 MIRASETT ST SW
62490000400	CRITCHER, MICHELLE M	7035 MIRASETT ST SW	TUMWATER	WA	98512	7035 MIRASETT ST SW
62490000500	ZIMMERMAN, NANCY H & JEFFREY L	7033 MIRASETT ST SW	TUMWATER	WA	98512	7033 MIRASETT ST SW
62490000600	BROWN, PATRICIA A	7027 MIRASETT ST SW	TUMWATER	WA	98512	7027 MIRASETT ST SW
62490000700	NGUYEN, DON VUNG	620 169TH ST SW	LYNNWOOD	WA	98037	7023 MIRASETT ST SW
62490000800	MORROW, MICHAEL	7015 MIRASETT ST SW	TUMWATER	WA	98512	7015 MIRASETT ST SW
62490000900	VILLAFLORES, CONCEPCION B	6934 SOUTHWICK CT SW	OLYMPIA	WA	98512	6934 SOUTHWICK CT SW
62490001000	STEPPER, TERI L	6936 SOUTHWICK CT SW	OLYMPIA	WA	98512	6936 SOUTHWICK CT SW

62490001100	MOORHEAD, ROBIN D	6938 SOUTHWICK CT SW	OLYMPIA	WA	98512	6938 SOUTHWICK CT SW
62490001200	ARLEDGE, PAMELA S	6940 SOUTHWICK CT SW	OLYMPIA	WA	98512	6940 SOUTHWICK CT SW
62490001300	DOLBY, MELISSA M	6942 SOUTHWICK CT SW	OLYMPIA	WA	98512	6942 SOUTHWICK CT SW
62490001400	NOSKI, JENNIFER D & STEPHEN J	7000 SOUTHWICK CT SW	OLYMPIA	WA	98512	7000 SOUTHWICK CT SW
62490001500	SMITH, DONNA M	7002 SOUTHWICK CT SW	OLYMPIA	WA	98512	7002 SOUTHWICK CT SW
62490001600	MURINKO, SHAWN & REBECCA	7008 SOUTHWICK CT SW	TUMWATER	WA	98512	7008 SOUTHWICK CT SW
62490001700	NICKERSON, JERRY D & KAREN M	7012 SOUTHWICK CT SW	OLYMPIA	WA	98512	7012 SOUTHWICK CT SW
62490001800	TULL, JOHN H & CHARLENE H	7016 SOUTHWICK CT SW	TUMWATER	WA	98512	7016 SOUTHWICK CT SW
62490001900	SMITH, DAVID A & MARCIA	31 OHANA LN	HOQUIAM	WA	98550	7022 SOUTHWICK CT SW
62490002000	DAVIS, GARY K	7026 SOUTHWICK CT SW	OLYMPIA	WA	98512	7026 SOUTHWICK CT SW
62490002100	EDDINGS, EDNA LOUISE	2828 71ST WAY SW	OLYMPIA	WA	98512	2828 71ST WAY SW
62490004400	JORDAN, JOHN C	7031 SOUTHWICK CT SW	TUMWATER	WA	98512	7031 SOUTHWICK CT SW
62490004500	BINSCHUS, TIMOTHY A & JENEAN M	7029 SOUTHWICK CT SW	OLYMPIA	WA	98512	7029 SOUTHWICK CT SW
62490004600	DEERING, GREGORY A & LORNA A	7025 SOUTHWICK CT SW	OLYMPIA	WA	98512	7025 SOUTHWICK CT SW
62490004700	FORD, CHARLES & DIANA	10905 GRAND HAVEN AVE	LAS VEGAS	NV	89134-72	7021 SOUTHWICK CT SW
62490004800	THEDY, RYAN	7017 SOUTHWICK CT SW	OLYMPIA	WA	98512	7017 SOUTHWICK CT SW
62490004900	CRAYPO, JASON L	7009 SOUTHWICK CT SW	OLYMPIA	WA	98512	7009 SOUTHWICK CT SW
62490005000	HOANG, TRAM THI	7005 SOUTHWICK CT SW	OLYMPIA	WA	98512	7005 SOUTHWICK CT SW
62490005100	TROGDEN-HEMNESS, STEPHANI	7003 SOUTHWICK CT SW	OLYMPIA	WA	98512	7003 SOUTHWICK CT SW
62490005200	SANCHEZ, SILVIA G	6949 SOUTHWICK CT SW	OLYMPIA	WA	98512	6949 SOUTHWICK CT SW
62490005300	PARKER, JUSTIN R & TRACY L	6947 SOUTHWICK CT SW	OLYMPIA	WA	98512	6947 SOUTHWICK CT SW
62490005400	KRAMER, PAUL & GAIL	6945 SOUTHWICK CT SW	OLYMPIA	WA	98512	6945 SOUTHWICK CT SW
62490005500	ALBERT, JASON T & TANIA L	6943 SOUTHWICK CT SW	OLYMPIA	WA	98512	6943 SOUTHWICK CT SW
62490005600	KONEN, ANGELA & BRANDON	6550 33RD AVE SE	LACEY	WA	98503	6941 SOUTHWICK CT SW
62490005700	KEMMER, KAREN M	26330 119TH DR SE	KENT	WA	98030-84	6939 SOUTHWICK CT SW
62490005800	KROH, CLAYTON	6937 SOUTHWICK CT SW	OLYMPIA	WA	98512	6937 SOUTHWICK CT SW
62490005900	FIELD, JENNIFER S	6935 SOUTHWICK CT SW	OLYMPIA	WA	98512	6935 SOUTHWICK CT SW
62490006000	VASQUEZ, ERICA CHARLIQUE & JESUS R	6933 SOUTHWICK CT SW	OLYMPIA	WA	98512	6933 SOUTHWICK CT SW
62490006100	QUAADMAN, SARAH L & MICHAEL P	6931 SOUTHWICK CT SW	OLYMPIA	WA	98512	6931 SOUTHWICK CT SW
62490006200	MATHESON, CAROL JOYCE	6929 SOUTHWICK CT SW	OLYMPIA	WA	98512	6929 SOUTHWICK CT SW
62490200000	MIRASETT HOMEOWNER'S ASSOCIATIO	6945 SOUTHWICK CT SW	OLYMPIA	WA	98512	2816 71ST WAY SW
62490300000	MIRASETT HOMEOWNER'S ASSOCIATIO	6945 SOUTHWICK CT SW	OLYMPIA	WA	98512	7001 TO 7002 W SOUTH
12704340202	TRINH, THUY	1631 11TH AVE SW	OLYMPIA	WA	98502	2925 70TH AVE SW
12704340203	GIBBS, KEVIN T & JENNIFER	2929 70TH AVE SW	OLYMPIA	WA	98512-71	2929 70TH AVE SW
12704340204	ROGERS, MICHAEL J & NANNETTE B	11700 WADDELL CREEK RD SW	OLYMPIA	WA	98512	2931 70TH AVE SW
12704340205	ROGERS, MICHAEL J	11700 WADDELL CREEK RD SW	OLYMPIA	WA	98512	2933 SW 70TH AVE
81680000002	VILLAGE AT COUNTRYSIDE HOA	7116 COUNTRY VILLAGE DR ST	TUMWATER	WA	98512	7034 COUNTRY VILLAGE
81680001600	ZYLSTRA, CAROL A	7039 COUNTRY VILLAGE DR ST	TUMWATER	WA	98512	7048 COUNTRY VILLAGE
81680001700	MARRERO, RANDAL P & DEBRA A	7044 COUNTRY VILLAGE DR ST	TUMWATER	WA	98512	7044 COUNTRY VILLAGE
12704340206	TORRES, CONRADO A	6200 ESTHER ST SW	TUMWATER	WA	98501	
42940000001	COUNTRYSIDE OWNERS ASSOCIATION	PO BOX 3612	LACEY	WA	98509	3041 70TH WAY SW
35310000800	VILLARREAL, BEAU T & THERESA L	7101 MIRASETT ST SW	TUMWATER	WA	98512	7101 MIRASETT ST SW
35310000900	JAYARAMA, SRIRAM & MARGARET A	2803 71ST WAY SW	OLYMPIA	WA	98512	2803 71ST WAY SW
35310001000	KING, KELLIN & BRANDEE	2807 71ST WAY SW	OLYMPIA	WA	98512	2807 71ST WAY SW
35310001100	SHANK, DOUGLAS E	7119 MIRASETT ST SW	TUMWATER	WA	98512	7119 MIRASETT ST SW
35310001200	SINGH, JASPAL	7115 MIRASETT ST SW	TUMWATER	WA	98512	7115 MIRASETT ST SW
35310001300	SONS, CHRISTOPHER & SARAH	7105 MIRASETT ST SW	TUMWATER	WA	98512	7105 MIRASETT ST SW

35310001400	CAUDA, MATTHEW J	7109 MIRASETT ST SW	TUMWATER	WA	98512	7109 MIRASETT ST SW
62490002200	STOLP, HAROLD R & UTE I	2815 71ST WAY SW	OLYMPIA	WA	98512	2815 71ST WAY SW
62490002300	CAMPBELL, CLAY	2817 71ST WAY SW	OLYMPIA	WA	98512	2817 71ST WAY SW
62490002400	POSOH RENTALS LLC	5908 95TH AVE SW	OLYMPIA	WA	98512	7106 SOUTHWICK CT SW
62490002500	ROBERTS-ECHTLE, JENNIFER GAYLE	5214 78TH AVE NW	OLYMPIA	WA	98502-93	7108 SOUTHWICK CT SW
62490002700	CADIZ CORPUZ, ALONA C	7114 SOUTHWICK CT SW	OLYMPIA	WA	98512	7114 SOUTHWICK CT SW
62490002800	STAPERT, JASON & LISA	7120 SOUTHWICK CT SW	OLYMPIA	WA	98512	7120 SOUTHWICK CT SW

4.5 *Water Quality Monitoring Schedule (WQMS)*

Washington State Department of Health
Environmental Public Health
Office of Drinking Water

Water Quality Monitoring Schedule

System: LAZY ACRES 351
Contact: Kimberly S Gubbe
SMA ID: 147

PWS ID: 46441 K
Group: A - Comm
SMA Name: PUD No 1 of Thurston County

Region: SOUTHWEST
County: THURSTON

NOTE: To receive credit for compliance samples, you must fill out laboratory and sample paperwork completely, send your samples to a laboratory accredited by Washington State to conduct the analyses, AND ensure the results are submitted to DOH Office of Drinking Water. There is often a lag time between when you collect your sample, when we credit your system with meeting the monitoring requirement, and when we generate the new monitoring requirement.

Coliform Monitoring Requirements

	Oct 2022	Nov 2022	Dec 2022	Jan 2023	Feb 2023	Mar 2023	Apr 2023	May 2023	Jun 2023	Jul 2023	Aug 2023	Sep 2023
Coliform Monitoring Population	267	267	267	267	267	267	267	267	267	267	267	267
Number of Routine Samples Required	1	1	1	1	1	1	1	1	1	1	1	1

- Collect samples from representative points throughout the distribution system.
- Collect required repeat samples following an unsatisfactory sample. In addition, collect a sample from each operating groundwater source.
- For systems that chlorinate, record chlorine residual (measured when the coliform sample is collected) on the coliform lab slip.

Chemical Monitoring Requirements

Distribution Monitoring

Test Panel/Analyte	*# Samples Required*	*Compliance Period*	*Frequency*	*Last Sample Date*	*Next Sample Due*	
Lead and Copper	5	Jan 2020 - Dec 2022	standard - 3 year	06/09/2019	***Jun 2022***	***Due Date***
Asbestos	0	Jan 2020 - Dec 2028	waiver - 9 year			

Notes on Distribution System Chemical Monitoring

For *Lead and Copper*:
- Collect samples from the COLD WATER side of a KITCHEN or BATHROOM faucet that is used daily.
- Before sampling, make sure the water has sat unused in the pipes for at least 6 hours, but no more than 12 hours (e.g. overnight).
- If you are sampling from a faucet that has hot water, make sure cold water is the last water to run through the faucet before it sits overnight.
- If your sampling frequency is annual or every 3 years, collect samples between June 1 and September 30.

For *Asbestos:* Collect the sample from one of your routine coliform sampling sites in an area of your distribution system that has asbestos concrete pipe.

Washington State Department of Health
Environmental Public Health
Office of Drinking Water

Water Quality Monitoring Schedule

Source Monitoring

- Collect 'source' chemical monitoring samples from a tap after all treatment (if any), but before entering the distribution system.
- Washington State grants monitoring waivers for various test panels /analytes. Please note that we may require some monitoring as a condition of some waivers. We have granted complete waivers for dioxin, endothal, glyphosate, diquat, and insecticides.
- Nitrate, arsenic, iron, and other individual inorganics are included as part of a Complete Inorganic (IOC) analysis when it is collected.

Source S02	*LAZY #2 AHF064*	*Well*	*Use - Permanent*	*Susceptility - Moderate*			
Test Panel/Analyte	*# Samples Required*	*Compliance Period*	*Frequency*	*Last Sample Date*	*Next Sample Due*	
Nitrate	1	Jan 2022 - Dec 2022	standard - 1 year	06/07/2021	***Jun 2022***	***Past Due***
Complete Inorganic (IOC)	1	Jan 2020 - Dec 2028	waiver - 9 year	06/07/2021		
Iron	1	Jan 2020 - Dec 2022	standard - 3 year	06/07/2021		
Volatile Organics (VOC)	1	Jan 2020 - Dec 2025	waiver - 6 year	06/02/2016	***Jun 2022***	***Past Due***
Herbicides	1	Jan 2014 - Dec 2022	waiver - 9 year	06/07/2021		
Pesticides	0	Jan 2020 - Dec 2022	waiver - 3 year	06/04/2009		
Soil Fumigants	0	Jan 2020 - Dec 2022	waiver - 3 year	06/18/2003		
Gross Alpha	1	Jan 2020 - Dec 2025	standard - 6 year	06/07/2021		
Radium 228	1	Jan 2020 - Dec 2025	standard - 6 year	06/07/2021		

Source S04	*FOSTER PITLESS*	*Well*	*Use - Permanent*	*Susceptility - Moderate*	
Test Panel/Analyte	*# Samples Required*	*Compliance Period*	*Frequency*	*Last Sample Date*	*Next Sample Due*
Nitrate	1	Jan 2022 - Dec 2022	standard - 1 year	06/06/2022	
Complete Inorganic (IOC)	1	Jan 2020 - Dec 2028	waiver - 9 year	06/06/2022	
Iron	1	Jan 2020 - Dec 2022	standard - 3 year	06/06/2022	
Volatile Organics (VOC)	1	Jan 2020 - Dec 2025	waiver - 6 year	06/06/2022	
Herbicides	1	Jan 2014 - Dec 2022	waiver - 9 year	06/07/2021	
Pesticides	0	Jan 2020 - Dec 2022	waiver - 3 year	09/12/2000	
Soil Fumigants	0	Jan 2020 - Dec 2022	waiver - 3 year	06/18/2003	
Gross Alpha	1	Jan 2020 - Dec 2025	standard - 6 year	06/07/2021	
Radium 228	1	Jan 2020 - Dec 2025	standard - 6 year	06/07/2021	

Water Quality Monitoring Schedule

Source Monitoring

- Collect 'source' chemical monitoring samples from a tap after all treatment (if any), but before entering the distribution system.
- Washington State grants monitoring waivers for various test panels /analytes. Please note that we may require some monitoring as a condition of some waivers. We have granted complete waivers for dioxin, endothal, glyphosate, diquat, and insecticides.
- Nitrate, arsenic, iron, and other individual inorganics are included as part of a Complete Inorganic (IOC) analysis when it is collected.

Source S06 *WF (S01,S03)* *Well Field* *Use - Permanent* *Susceptility - Moderate*

Test Panel/Analyte	*# Samples Required*	*Compliance Period*	*Frequency*	*Last Sample Date*	*Next Sample Due*
Nitrate	1	Jan 2022 - Dec 2022	standard - 1 year	06/06/2022	
Complete Inorganic (IOC)	1	Jan 2020 - Dec 2028	waiver - 9 year	06/07/2021	
Iron	1	Jan 2020 - Dec 2022	standard - 3 year	06/07/2021	
Volatile Organics (VOC)	1	Jan 2020 - Dec 2025	waiver - 6 year	06/06/2022	
Herbicides	1	Jan 2014 - Dec 2022	waiver - 9 year	06/07/2021	
Pesticides	0	Jan 2020 - Dec 2022	waiver - 3 year	06/27/2001	
Soil Fumigants	0	Jan 2020 - Dec 2022	waiver - 3 year	06/18/2003	
Gross Alpha	1	Jan 2020 - Dec 2025	standard - 6 year	06/07/2021	
Radium 228	1	Jan 2020 - Dec 2025	standard - 6 year	06/07/2021	

Water Quality Monitoring Schedule

Other Information

Other Reporting Schedules	*Due Date*
Submit Consumer Confidence Report (CCR) to customers and ODW (Community systems only):	07/01/2022
Submit CCR certification form to ODW (Community systems only):	10/01/2022
Submit Water Use Efficiency report online to ODW and to customers (Community and other municipal water systems only):	07/01/2022
Send notices of lead and copper sample results to the customers sampled:	30 days after you receive the laboratory results
Submit Certification of customer notification of lead and copper results to ODW:	90 days after you notify customers

Special Notes

None

Southwest Regional Water Quality Monitoring Contacts

For questions regarding chemical monitoring:	Sophia Petro: (564) 669-0856 or sophia.petro@doh.wa.gov
For questions regarding DBPs:	Regina Grimm, p.e.: (360) 236-3035 or regina.grimm@doh.wa.gov
For questions regarding coliform bacteria and microbial issues:	Southwest Office: (360) 236-3030 or SWRO.Coli@doh.wa.gov

Additional Notes

The information on this monitoring schedule is valid as of the date in the upper left corner on the first page. However, the information may change with subsequent updates in our water quality monitoring database as we receive new data or revise monitoring schedules. There is often a lag time between when you collect your sample and when we credit your system with meeting the monitoring requirement.

We have not designed this monitoring schedule to display all compliance requirements. The purpose of this schedule is to assist water systems with planning for most water quality monitoring, and to allow systems to compare their records with DOH ODW records. Please be aware that this monitoring schedule does not include constituents that require a special monitoring frequency, such as monitoring affiliated with treatment.

Any inaccuracies on this schedule will not relieve the water system owner and operator of the requirement to comply with applicable regulations.

If you have any questions about your monitoring requirements, please contact the regional office staff listed above.

4.6 *Coliform Monitoring Plan*

COLIFORM MONITORING PLAN

Lazy Acres 351

Source – No Treatment

System Information **Plan Date: 11/2022**

Water System Name **Lazy Acres 351**	**County** **Thurston**	**System I.D. Number** **46441 K**
Name of Plan Preparer Kim Gubbe	**Position** Director of Planning and Compliance	**Daytime Phone #** (360) 357-8783 ext. 125

Source: DOH Source Number, Source Name, Well Depth, Pumping Capacity	**S01 Lazy #1** WW ABS204, 55' depth, 50 GPM **S02 Lazy #2** AHF064, 115' depth, 38 GPM **S03 Lazy #3** WW, AHF065, Emergency Use Only, physically disconnected, 55' depth;50 GPM **S04 Foster** Pit less - Well, No tag, 68' depth, 61 GPM **S05 Foster** Old Well, Emergency Use Only, physically disconnected **S06 Well Field** (S01 & S03) – 100 GPM
Storage: List and Describe	None
Pressure Zones: Number and name	One, water system
Population by Pressure Zone	Population: 267 Connections – Active: 94 Approved: 97
Number of Routine Samples Required Monthly by Regulation: **One**	Number of Sample Sites Needed to Represent the Distribution System: **Three**
Source Address / Location:	**S01, S02, S03 – 6711 Lazy St SW, TP#: 58720000501** **S04, S05 – Corner of Foster St & 70th Ave SW, TP#: 48630000100**

Routine Sample Rotation Schedule

Month	Routine Site(s)	Month	Routine Site(s)
January	X1	July	X1
February	X2	August	X2
March	X3	September	X3
April	X1	October	X1
May	X2	November	X2
June	X3	December	X3

Level 1 and Level 2 Assessment Contact Information

Name **Kim Gubbe**	Office Phone: **360-357-8783 ext. 125** After Hours Phone: **360-688-0827**
Address **1230 Ruddell Road SE, Lacey WA 98503**	Email **kgubbe@thurstonpud.org**
Name **Jim Campbell**	Office Phone: **360-357-8783 ext. 120** After Hours Phone: **360-790-2662**
Address **1230 Ruddell Road SE, Lacey WA 98503**	Email **jcampbell@thurstonpud.org**

Laboratory Information

Laboratory Name Water Management Laboratories Inc.	**Office Phone #** (253) 531-3121
Address 1515 80th St. E. Tacoma, WA 98404	**After Hours #** (253) 841-0732
Hours of Operation Monday – Friday 8a.m.- 5p.m. Saturday 9a.m. – 12p.m.	
Contact Name No specific contact	

Routine, Repeat, and Triggered Source Sample Locations

Location/Address for **Routine Sample Sites**	Location/Address for **Repeat and Triggered Source Sample Sites**
X1. 2904 Childress Ct Sw	**1-1. Sample site X1**
(sample meter)	**1-2. 6607 Foster Dr (front of house)**
	1-3 6731 Foster Dr (front of house)
	***GWR - S01 and S02 and S04**
X2. 2705 68th St SW	**2-1. Sample site X2**
(sample meter)	**2-2. 6927 Lively St (front of house)**
	2-3. 2717 68th Ct (front of house)
	***GWR - S01 and S02 and S04**
X3. 2720 Vacation Dr	**3-1. Sample site X3**
(sample meter)	**3-2. 2704 Vacation Dr (front of house)**
	3-3. 6613 Lazy St (front of house)
	***GWR - S01 and S02 and S04**

You should mark the lab slip for the source sample "Ground Water Rule" (GWR) in type of sample and request an analysis for E coli count. You must sample every groundwater source, **before treatment, that was in use when the original routine sample was collected.*

Important notes for sample collector:

- Collect samples early in the month and early in the week.
- Check the sample site/tap before filling bottle to make sure there is no reason to invalidate the sample results.
- Do not sample on week when key staff are on vacation or a holiday occurs, as it may create schedule conflicts.
- If sample site is no longer a good sample site, substitute an acceptable site in the same area. If the site issues persist, choose a new permanent site and update CMP accordingly.

E. coli-Present Sample Response

Distribution System *E. coli* Response Plan and *E. coli* Present Triggered Source Sample Response Plan
If we have *E. coli* in our distribution system, we will immediately: 1. Call DOH. 2. See attached plan : *What To Do When We Get A Positive Fecal Or E.Coli Sample*

What To Do When We Get A Positive Fecal Or E-Coli Sample.

1. Call the agency that governs that system immediately of receiving the results.
   Group A's Thurston, Lewis, Grays – SW Drinking Water, 360-236-3045 or 360-236-3030.

2. Work with agency, we could put the customers on boil water now or wait until the next tests come back. TPUD will usually put on boil water now. Distribute door hangers at this time with a copy of the Acute mcl attached.
   K:\FORMS\Mandatory Language Forms\Acute Coliform MCL
   K:\FORMS\Mandatory Language Forms\Boil Water Advisory Door Hanger

3. Email or fax form and door hanger to agency after it has been hand delivered to the customers.

4. Take the repeat samples with in 24 hours and run a 24 hour test on them.
   Group A's four samples – follow the Coliform Monitoring Plan. If more than 1 well was in operations then a raw sample from each will need to be taken, plus the four repeats (which should include one well).

5. Access the system; try to find where the contamination is coming from. Are there any bad tanks, what does the well head look like, what activity is going on around the well.

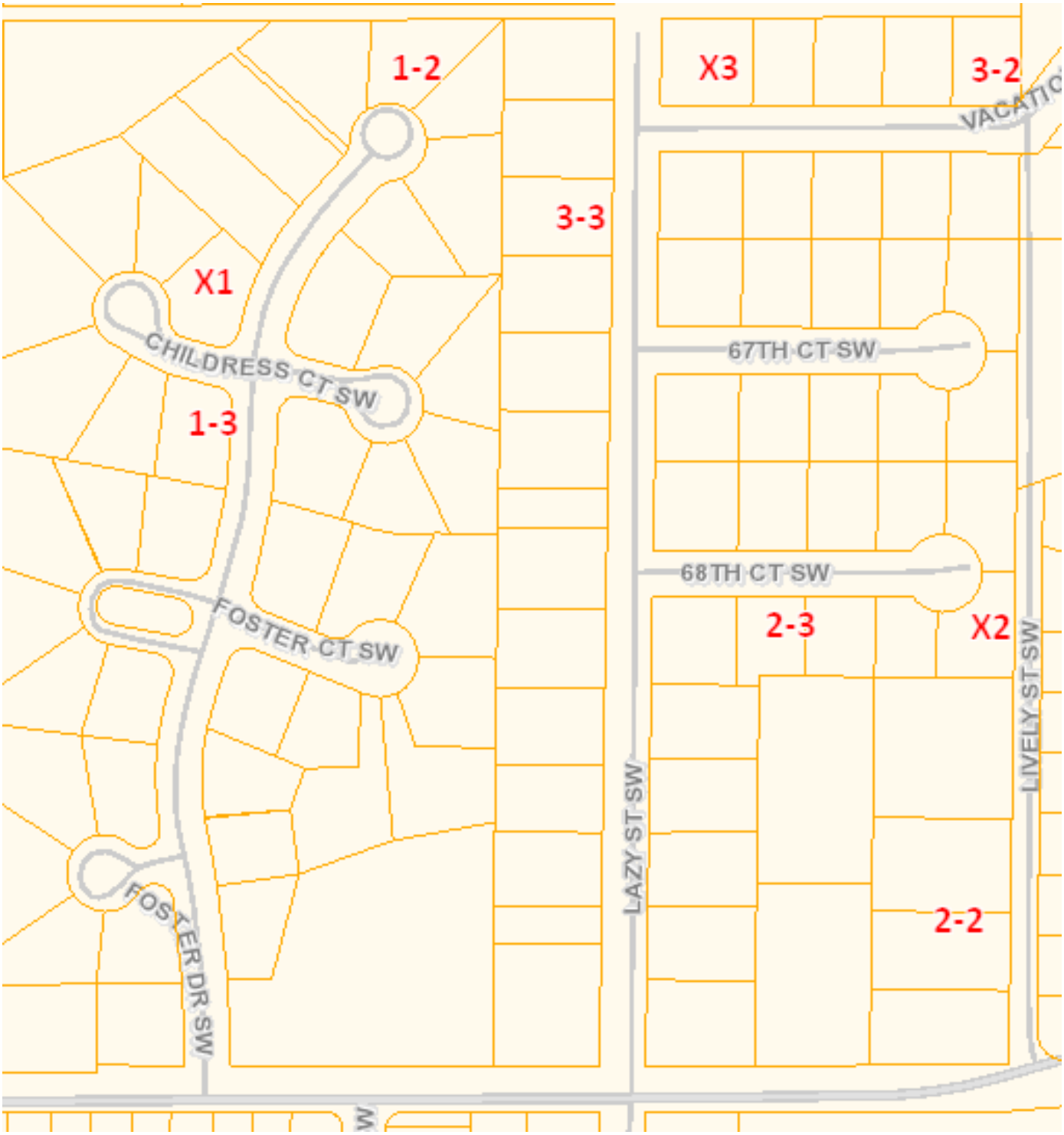
6. Call lab in 24 hours from time sample was taken if email has not been received yet. Confirm that samples were good or bad.

7. If samples are negative take another round of samples, immediately. Run another 24 hour test. If next round are also negative lift the boil water notice.

8. If one of the samples comes back positive and we haven't found the problem, then we should start continuous temporary chlorination of the system and notify the customers by door hanger of the chlorination. If the system is permanently chlorinated take chlorine residual throughout the water system to determine if chlorinated water is at the desired residual and if not, try to determine the cause of why there maybe no residual. Then flush the system to get the chlorine throughout with monitoring to make sure that chlorine residual is consistent throughout the water system.

9. Once the chlorine is throughout the system then we need to take two rounds of repeat samples under normal operating conditions (i.e., normal chlorine residual, if any, or zero residual if system is not normally not disinfected) to lift the boil water.

System Map


1-2
X3
3-2
3-3
X1
CHILDRESS CT SW
67TH CT SW
1-3
68TH CT SW
FOSTER CT SW
2-3
X2
LAZY ST SW
LIVELY ST SW
2-2
FOSTER DR SW