Well Construction Program

OREGON
WATER RESOURCES DEPARTMENT

Racquel Rancier, Policy Manager

Kris Byrd, Well Construction and Compliance Manager

House Committee on Water
December 17, 2020

OREGON WATER RESOURCES DEPARTMENT

Purpose of Program

Protect Public Health and Safety

- Prevent wells from serving as a conduit for groundwater contamination

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Purpose of Program

Protect Groundwater Resources for Existing and Future Uses

- Prevent draining of aquifers and groundwater declines

Video of Commingling: Depletes the aquifer like pumping 24 hours a day every day of the year until fixed

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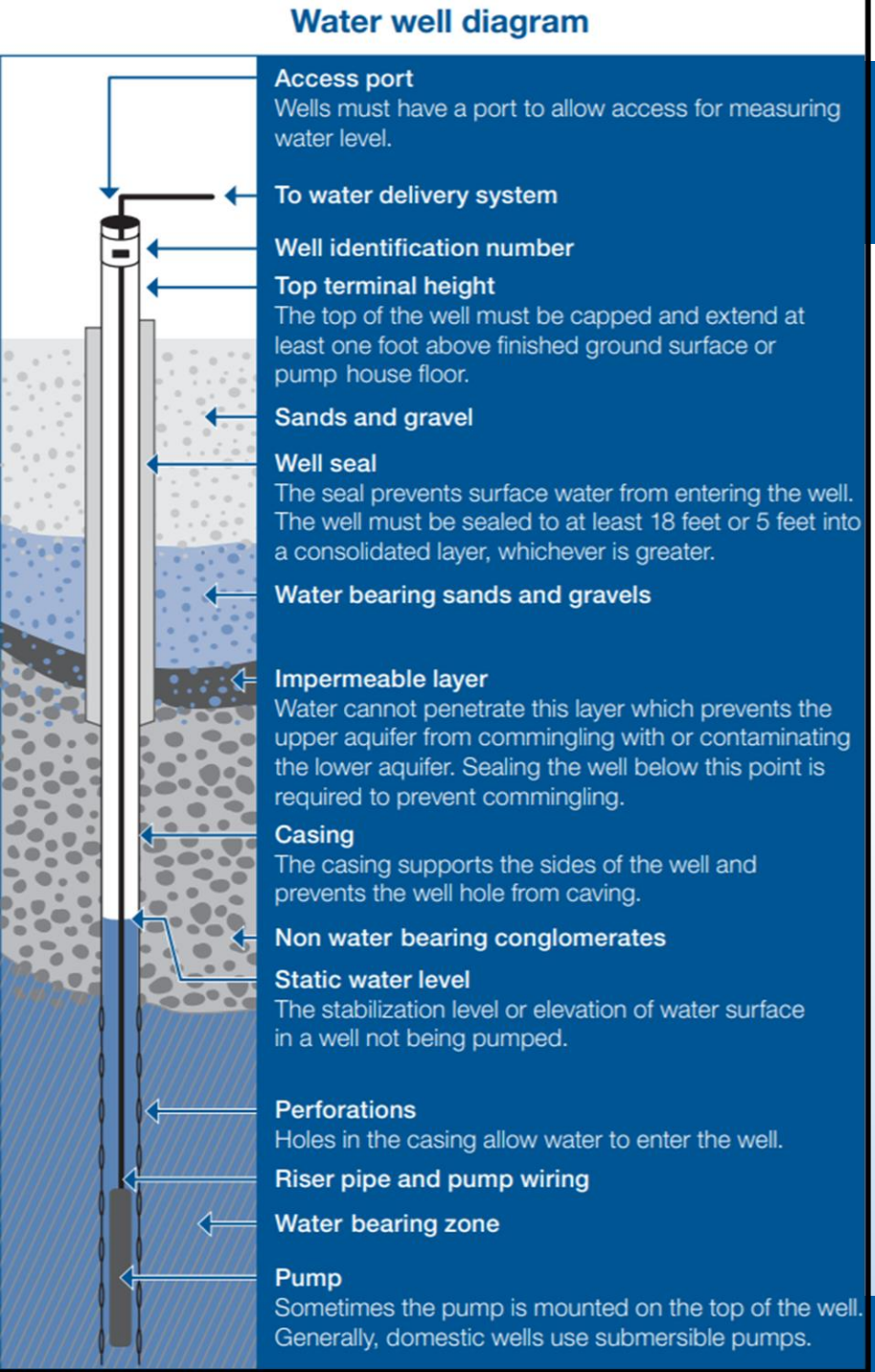
Program Components

- Landowner Permits to Drill
- Start Cards Before Work
- Well Inspections
- Well Log Upon Completion
- Well Identification Labels
- Exempt Use ap

- Driller Licensing
- Driller Continuing Education
- Well Construction Standards
- Issuance of Special Standards



Well Inspections

- 250,000+ wells in Oregon
- 5 inspectors
- ~3,000 new wells each year
  - ~30% average inspection rate
- 2019: 823 new wells inspected
  - 10% (79) with deficiencies

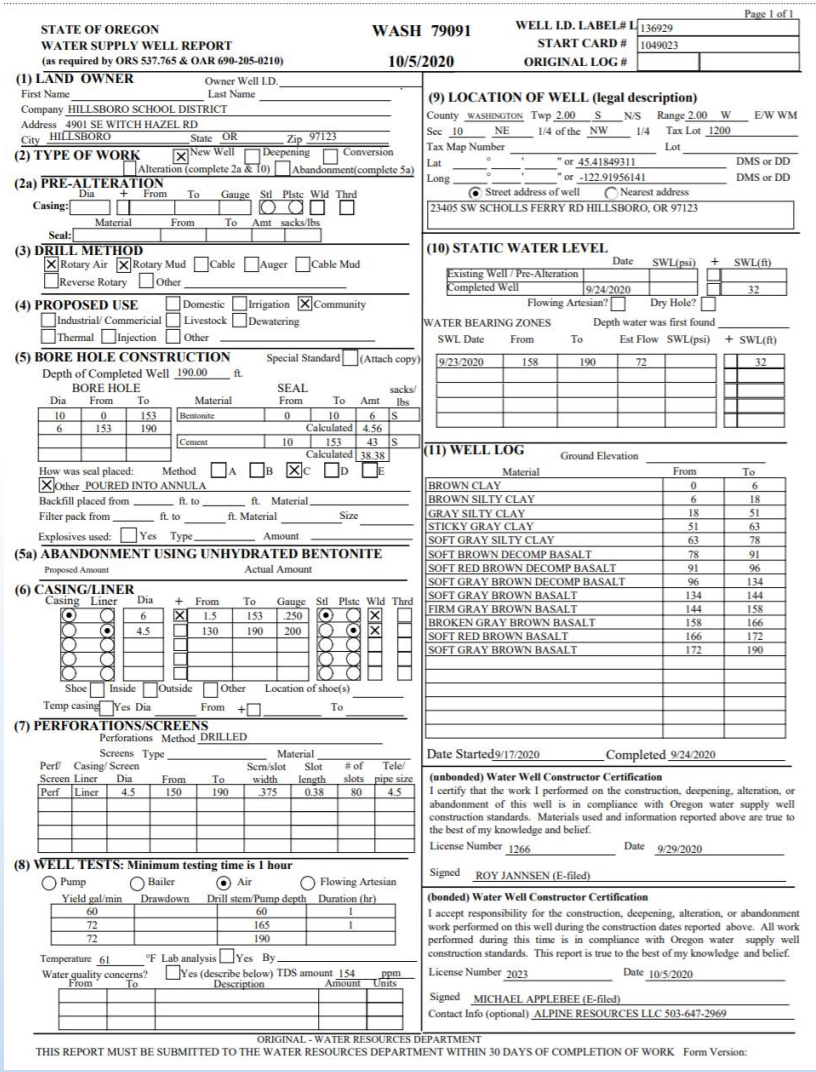
Well Log Reviews

Well Log Reviews

- Not all deficiencies can be identified
- Well inspectors estimated to review <10% of well logs

2019 Pilot

- Roughly 6% of logs reviewed indicated a potential deficiency



STATE OF OREGON
WATER SUPPLY WELL REPORT
(as required by ORS 537.765 & OAR 690-205-0210)

WASH 79091
10/5/2020

WELL I.D. LABEL# L 136929
START CARD # 1049023
ORIGINAL LOG #

Page 1 of 1

(1) LAND OWNER
Owner Well I.D.
First Name Last Name
Company HILLSBORO SCHOOL DISTRICT
Address 4901 SE WITCH HAZEL RD
City HILLSBORO State OR Zip 97123

(2) TYPE OF WORK [X] New Well [ ] Deepening [ ] Conversion [ ] Alteration (complete 2a & 10) [ ] Abandonment(complete 5a)

(2a) PRE-ALTERATION
Casing: Dia + From To Gauge Stl Plstc Wld Thrd
Seal: Material From To Amt sacks/lbs

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

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

(5) BORE HOLE CONSTRUCTION Special Standard [ ] (Attach copy)
Depth of Completed Well 190.00 ft.

BORE HOLE Dia	From	To	SEAL Material	From	To	Amt	sacks/lbs
10	0	153	Bentonite	0	10	6	S
6	153	190			Calculated	4.56	
			Cement	10	153	43	S
					Calculated	38.38	

How was seal placed: Method [ ] A [ ] B [X] C [ ] D [ ] E
[X] Other POURED INTO ANNULA
Backfill placed from ft. to ft. Material
Filter pack from ft. to ft. Material Size
Explosives used: [ ] Yes Type Amount

(5a) ABANDONMENT USING UNHYDRATED BENTONITE
Proposed Amount Actual Amount

(6) CASING/LINER

Casing	Liner	Dia	+	From	To	Gauge	Stl	Plstc	Wld	Thrd
●		6	X	1.5	153	.250	●		X	
	●	4.5		130	190	200		●	X	

Shoe [ ] Inside [ ] Outside [ ] Other Location of shoe(s)
Temp casing [ ] Yes Dia From + To

(7) PERFORATIONS/SCREENS
Perforations Method DRILLED
Screens Type Material

Perf/ Screen	Casing/ Liner	Screen Dia	From	To	Scrn/slot width	Slot length	# of slots	Tele/ pipe size
Perf	Liner	4.5	150	190	.375	0.38	80	4.5

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

Yield gal/min	Drawdown	Drill stem/Pump depth	Duration (hr)
60		60	1
72		165	1
72		190	

Temperature 61 °F Lab analysis [ ] Yes By
Water quality concerns? [ ] Yes (describe below) TDS amount 154 ppm

From	To	Description	Amount	Units

(9) LOCATION OF WELL (legal description)
County WASHINGTON Twp 2.00 S N/S Range 2.00 W E/W WM
Sec 10 NE 1/4 of the NW 1/4 Tax Lot 1200
Tax Map Number Lot
Lat ° ' " or 45.41849311 DMS or DD
Long ° ' " or -122.91956141 DMS or DD
◉ Street address of well ○ Nearest address
23405 SW SCHOLLS FERRY RD HILLSBORO, OR 97123

(10) STATIC WATER LEVEL

	Date	SWL(psi)	+	SWL(ft)
Existing Well / Pre-Alteration				
Completed Well	9/24/2020			32

Flowing Artesian? [ ] Dry Hole? [ ]

WATER BEARING ZONES Depth water was first found

SWL Date	From	To	Est Flow	SWL(psi)	+	SWL(ft)
9/23/2020	158	190	72			32

(11) WELL LOG Ground Elevation

Material	From	To
BROWN CLAY	0	6
BROWN SILTY CLAY	6	18
GRAY SILTY CLAY	18	51
STICKY GRAY CLAY	51	63
SOFT GRAY SILTY CLAY	63	78
SOFT BROWN DECOMP BASALT	78	91
SOFT RED BROWN DECOMP BASALT	91	96
SOFT GRAY BROWN DECOMP BASALT	96	134
SOFT GRAY BROWN BASALT	134	144
FIRM GRAY BROWN BASALT	144	158
BROKEN GRAY BROWN BASALT	158	166
SOFT RED BROWN BASALT	166	172
SOFT GRAY BROWN BASALT	172	190

Date Started 9/17/2020 Completed 9/24/2020

(unbonded) Water Well Constructor Certification
I certify that the work I performed on the construction, deepening, alteration, or abandonment of this well is in compliance with Oregon water supply well construction standards. Materials used and information reported above are true to the best of my knowledge and belief.
License Number 1266 Date 9/29/2020
Signed ROY JANNSEN (E-filed)

(bonded) Water Well Constructor Certification
I accept responsibility for the construction, deepening, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon water supply well construction standards. This report is true to the best of my knowledge and belief.
License Number 2023 Date 10/5/2020
Signed MICHAEL APPLEBEE (E-filed)
Contact Info (optional) ALPINE RESOURCES LLC 503-647-2969

ORIGINAL - WATER RESOURCES DEPARTMENT
THIS REPORT MUST BE SUBMITTED TO THE WATER RESOURCES DEPARTMENT WITHIN 30 DAYS OF COMPLETION OF WORK Form Version:

OREGON WATER RESOURCES DEPARTMENT

Need for Modernization

- SOS Audit, Integrated Water Resources Strategy, and Strategic Plan
- Maximize limited resources
- Reduce deficiencies
- Protect the public and groundwater resources

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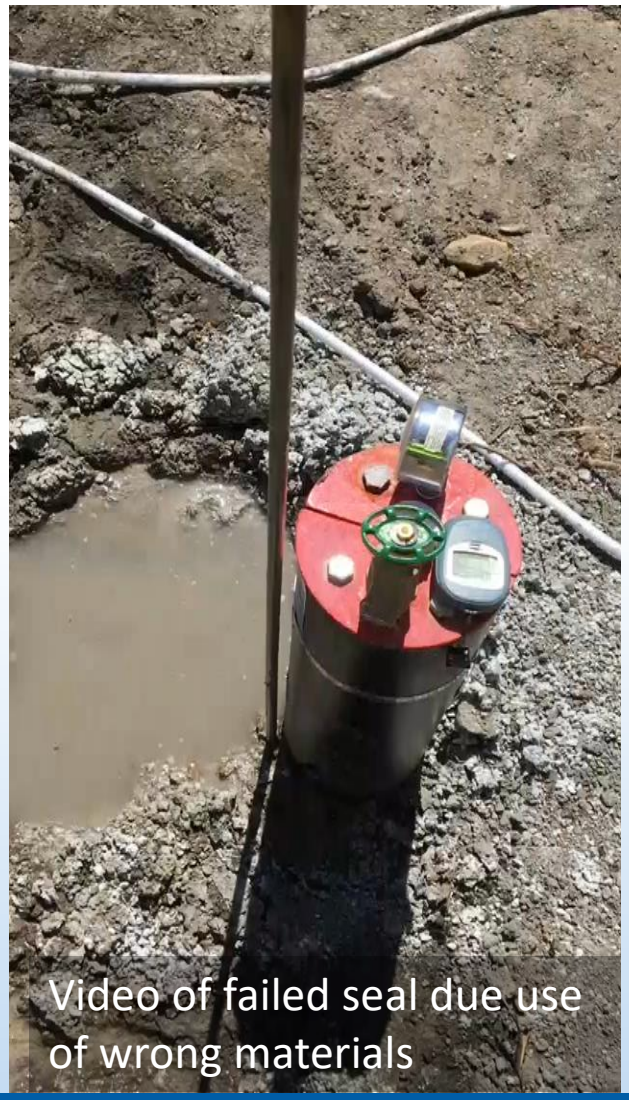
Objectives for Improvement



- Prevent deficiencies: Driller skills and knowledge
- Identify deficiencies: Improve ability to conduct inspections efficiently
- Timely Corrective Action: Reduce time it takes to address issues

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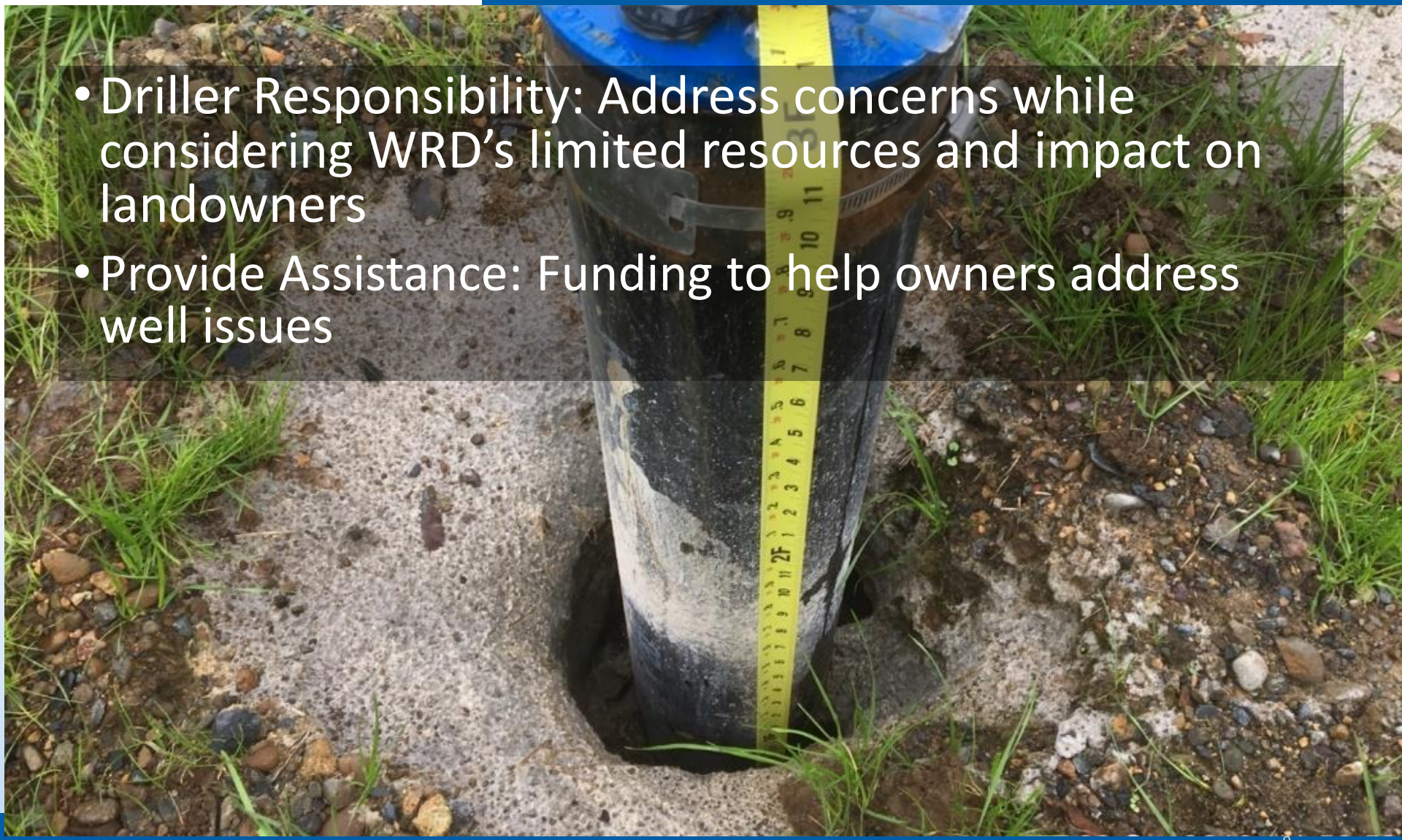
Objectives for Improvement



- Driller Responsibility: Address concerns while considering WRD's limited resources and impact on landowners
- Provide Assistance: Funding to help owners address well issues

Questions?

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DEPARTMENT