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TO: Water Resources Department

Date: March 10, 2008

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Salem, OR 97301-1271

ATTN: Rule Coordinator

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By a overwhelming majority vote of its Board of Directors, the Oregon Ground Water Association wishes to express the following positions related to the proposed rules establishing special area standards for well construction and maintenance in the Eola Hills Ground Water Limited Area of Polk and Yamhill Counties and in the Petes Mountain Area in Clackamas County.

1. In the Eola Hills GWLA, we are strongly opposed to adding requirements for casing and sealing to within 100 feet of the bottom of the hole. Following are some of the reasons:
  - a. In discussion with WRD staff, this requirement is designed to minimize the chance of commingling. However, there is already a general standard in the OARs that clearly prohibits commingling in water supply wells.<sup>1</sup>
  - b. Maintaining wells so that they are not commingling is also clearly required in the OARs.<sup>2</sup>
  - c. The proposed added requirement provides a pseudo-presumption that if one complies with it or if a water well report (log) indicates that it is constructed to that requirement, then commingling will not be occurring. That will not necessarily be the case. There could be commingling in the open interval, and/or there could be erroneous information on the log.

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<sup>1</sup> OAR 690-200-0043 "Commingling of Waters

A water supply well shall not be constructed in a manner that allows commingling or leakage of ground water by gravity flow or artesian pressure from one aquifer to another. See definition of aquifer."

<sup>2</sup> OAR 690-215-0005 "Prevention of Ground Water Contamination, Health Hazard, and Waste

...The landowner shall maintain all water supply wells in a condition where they are not a health hazard, a source of contamination or a source of waste of the ground water resource by allowing loss of artesian pressure or commingling of aquifers...."

OAR 690-215-0045 "Deepening of Wells

... (2) The deepening of a water supply well shall not result in the commingling of aquifers."

- d. If the WRD knows of wells commingling in the Eola Hills GWLA, then they have the authority, and duty to its citizens in protecting the water resources from waste, to enforce the existing standards.
  - e. Most existing wells will become useless if they should ever need to be deepened as this new standard will most likely not be economical to apply to the existing well in comparison to drilling a new well. Considering the significant cost in constructing a new well, and the cost to permanently abandon the existing well, the owner will likely elect not to incur the expense of the permanent abandonment. An idle well is often not properly maintained since it is no longer considered an asset, and thus could become a source of waste or contamination.
  - f. The proposed additional standard will result in significant costs to both existing and future well owners. While our industry would enjoy the added revenue, we do not believe it is in the best interests of the state, nor its citizens in the area to have this requirement imposed on them.
  - g. Similar requirements were once imposed on another area of the state known as Parrett Mountain about 17 years ago. Three years after their imposition, the rules were repealed as it was determined that the general standards, properly enforced, were as adequate in preventing commingling as the additional special area standards.
2. We are strongly opposed to the proposed language for both areas which states: "All new, altered, deepened or converted wells constructed in the ...Area shall be cased and sealed in accordance with OAR 690 Division 210...". This language could be interpreted to mean that existing water supply wells must be brought up to current casing and sealing standards if any work is performed on them. Many wells do not have adequate information on them to determine if they meet current standards. They may have been constructed to standards from many years ago, and may be fully in compliance with the maintenance standards of the OARs that prohibit commingling. Anyone who should undertake any alteration (a deepening is also an alteration by OAR definition), including a minor task of just adjusting the casing height, would now expose themselves to liability for the whole well. Through its attorney, OGWA recently submitted a petition to the Water Resources Commission opposing any such shift in enforcement responsibility and liability to the constructor. Please refer to that petition for more discussion.

In summary, OGWA supports the prevention of commingling; however it does not support a costly supplemental standard that give a false sense of absolutely assuring that this will not happen in the Eola Hills GWLA. OGWA also opposes any rules or law that improperly places WRD's enforcement responsibility onto the constructor, shifts unwarranted liability onto the constructor, discourages improving wells, and/or potentially adds un-necessary cost without measureable benefit.

OGWA supports the efforts of the WRD and WRC in making decisions based on sound science. Along that line, OGWA supports the drafting of dedicated probe tube standards with the proper consideration of all our industry's input, and the requiring of dedicated probe tubes in the two areas as a trial to be reviewed in the future to determine their usefulness and cost effectiveness along with technological advances.

Thank you for considering our input.

Sincerely,

A handwritten signature in black ink, appearing to read "KSM".

Kriss Schneider

President



**SCHNEIDER  
EQUIPMENT, INC.  
AND DRILLING CO.**

COMPLETE WATER SYSTEMS  
WELL DRILLING • PUMPS • CONTROLS  
SALES & SERVICE

OR CCB No. 39265  
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No. SCHNEI \*226LG

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Date: March 10, 2008

Following and attached are comments related to the proposed rules establishing special area standards for well construction and maintenance in the Eola Hills Ground Water Limited Area of Polk and Yamhill Counties and in the Petes Mountain Area in Clackamas County.

1. Our company strongly supports the position of the Oregon Ground Water Association with respect to the casing and sealing requirements proposed for both areas and the additional casing and sealing within 100' of the bottom of the borehole requirement proposed for Eola Hills GWLA.
2. If for some reason, contrary to the OGWA's position, the Eola Hills GWLA proposed casing and sealing to 100' of the bottom of the well cannot be waived, then the seal interval should at least include the option of utilizing Impermeable Sealing Material (ISM) as defined and allowed in the current OARs prescribing general standards for water supply wells. In addition, a video demonstrating that there is no commingling in the lower borehole should be allowed as an option to permit leaving more than 100' open without having to comply with the proposed area standard.
3. Over half of all pump installations in the state use pitless adaptors. The final rules for dedicated probe tubes should include a second figure depicting their installation with pitless adaptors in addition to the figure provided for top of casing pump installations to add clarity to dedicated probe tube installations for those applications.
4. There are many items needing defined limits on the proposed Figure 200-5 which establishes the dedicated probe tube standards. The word minimum does not satisfy in many cases. One cannot always determine what would exceed the minimum, and in other cases, there is a maximum that should be specified. The Figure also contains words that are open to wide and varied interpretation (e.g. "extensively perforate"), and also contains

*"Serving the water needs of the Northwest for over 50 years"*



terminology that is inconsistent with industry accepted terms (e.g. "well cap" and "well seal") for pump installations. There are also depictions that are in error and/or provide poor guidance that may increase the chance of contaminants entering the well (e.g. venting the tube above the "well cap"). In addition, the intent of the provide tube and of providing a minimum inside diameter tube should be specified.

5. There are superfluous words in the proposed rules.
6. There is a minimum 6" casing requirement for Pete's Mountain but not for Eola Hills; why aren't they the same?
7. Some language lacks clarity.
8. There should always be an means to allow someone to use an alternative without using special standards. Special standards have proven to be a costly and time consuming process with non-standard outcomes for like situations. For example, if someone can demonstrate that they cannot install the prescribed probe tube in an existing well because of dimension interference or other well issues, then they should be granted a waiver from the requirement (applicable if there are many other wells able to provide adequate data for the area) or an alternative device for facilitating the access of water levels (e.g. smaller diameter tube or airline).
9. We are adamantly opposed to allowing the Director to require dedicated measuring tubes on any water supply well without going through the formal rulemaking process. The proposed changes to OAR 690-215-0080 would permit that to happen. The proposed language could result in dedicated probe tubes being required on all water supply wells in the state without any further input from its citizens if the proposed rules are adopted. The proposed rulemaking is being done with a Notice that clearly states the intent is to apply these regulations in only two areas, not to the whole state. To include the proposed language in the above referenced OAR is deceptive and misleading. Controls on government are just as, if not more, important than controls on those government regulates.
10. The above comments numbered from 2 to 9 are represented in more detail on the attached hand mark-ups of the pertinent pages. If you need interpretation or clarification, please do not hesitate to contact the undersigned.

In summary, our company supports the use of dedicated probe tubes if they are clearly and properly specified with enforcement.

We do not support any language that suggests that an existing well must be brought up to current well casing and sealing standards. Such a requirement is often unnecessary, extremely costly, shifts liability to constructors for the condition of the well and puts enforcement of well construction maintenance standards that are clearly WRD's responsibility on constructors.

We do not support any of the other Eola Hills unique casing and sealing requirements. We have directly experienced similar requirements imposed on Parrett Mountain, only to have them

expensively repealed after only three years. Because of the significant cost it added to the well construction, the inability to bring existing wells up to that standard and there are already general standards that prohibit commingling and they have proved effective if they are just properly enforced.

Thank you for considering our input.

Sincerely,



Steve Schneider  
Vice President  
WWC 649



Kriss Schneider  
Vice Presiden  
WWC 1578

1 (G) This special area standard may be revised at a future date when  
2 additional information and analysis is provided from other agencies  
3 including the Oregon Department of Environmental Quality.

4 Stat. Auth.: ORS 537.780, 536.027, 536.090

5 Stats. Implemented: ORS 537.505 - 537.795, 537.780(1)

6 Hist.: WRD 2-2004, f. & cert. ef. 4-1-04

7 **2) Special Area Standards for the Construction, Conversion and**  
8 **Maintenance of Water Supply Wells for the "Petes Mountain Area",**  
9 **Clackamas County.**

10 **(A) As used in this rule and illustrated in Figure 200-4, "The Petes Mountain**  
11 **Area" includes the area located in Sections 28, 29, 32, 33 and 34 Township 2**  
12 **South, Range 1 East, Willamette Meridian; and Sections 2, 3, 4, 5, 9, 10, 11,**  
13 **15 and 16, Township 3 South, Range 1 East, Willamette Meridian.**  
14 **Beginning at the intersection of SW Ek Road and SW Stafford Road (T.2 S.,**  
15 **R.1 E., Sec. 29); thence southerly along SW Stafford Road to SW Mountain**  
16 **Road; thence southerly along SW Mountain Road to SW Hoffman Road;**  
17 **thence easterly along SW Hoffman Road to the intersection of SW Hoffman**  
18 **Road, SW Petes Mountain Road and SW Riverwood Drive; thence due east**  
19 **to the Willamette River; thence northerly along the Willamette River to the**  
20 **mouth of the Tualatin River; thence northwesterly along the Tualatin River**  
21 **to SW Borland Road (a.k.a. Willamette Falls Drive); thence northwesterly**  
22 **along SW Borland Road to SW Ek Road ; thence westerly along SW Ek**  
23 **Road to SW Stafford Road, to the point of beginning.**

24 **(B) All ~~new, altered, deepened or converted~~ wells constructed in the**  
25 **Petes Mountain Area shall be ~~cased and sealed in accordance with~~**  
26 **~~OAR 690, Division 210~~ with the following additional requirements:**

New language is in bold and underlined: **example**

All italicized text in brackets [example] is proposed to be removed

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1 (a) All new wells shall have a nominal minimum well casing diameter  
2 of at least 6 inches.

3 (b) All wells shall have a minimum 3/4-inch diameter dedicated  
4 measuring tube installed at the time of pump installation, pump  
5 repair or pump replacement (See Figure 200-5 and OAR 690-215-  
6 0200).

7 (C) Alternatives to the special area standards shall be approved ~~only~~  
8 if it can be demonstrated that the alternative techniques proposed to  
9 be used are as effective *in facilitating water level measurements with similar*  
10 *ease as those specified in (2)(B) above* as the techniques required in subsection (2)(B)  
11 above. Such alternatives require prior written approval by the  
12 Department. In addition, follow-up testing may be required by the  
13 Department to insure the effectiveness of the alternative technique.

14 (D) Except as they may conflict with subsection (2)(B), all other  
15 provisions of Oregon Administrative Rules for Well Construction and  
16 Maintenance Standards apply.

17 (E) This rule is applicable to *new wells constructed on or after July 1, 2008 and to all*  
18 wells for which pump installation, repair  
19 or replacement began on or after July 1, 2008.

20 ~~(F) This special area standard may be revised at a future date when~~  
21 ~~additional information and analysis is provided from other agencies~~  
22 ~~including the Oregon Department of Environmental Quality.~~

23 3) Special Area Standards for the Construction, Conversion and  
24 Maintenance of Water Supply Wells for the "Eola Hills Ground Water  
25 Limited Area," Polk and Yamhill Counties.

(A) As used in this rule and illustrated in Figure 200-7, "The Eola Hills  
Ground Water Limited Area" includes all or portions of Sections 4 through

New language is in bold and underlined: example  
All italicized text in brackets [example] is proposed to be removed  
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1 9, 16 through 21, and 29 through 32, Township 6 South, Range 3 West,  
2 Willamette Meridian; Sections 3 through 10, 15 through 22, 28, 29 and 30,  
3 Township 7 South, Range 3 West, Willamette Meridian; Sections 1 through  
4 5, 8 through 17, 20 through 29, and 32 through 36, Township 6 South, Range  
5 4 West, Willamette Meridian; and Sections 1 through 30, Township 7 South,  
6 Range 4 West, Willamette Meridian. The boundary of the Eola Hills area is  
7 as follows: Beginning at the intersection of the south line of Township 5  
8 South and U.S. Highway 99W, thence east along the township line to the  
9 Willamette River, thence southerly to Oregon State Highway 22, thence  
10 westerly to U.S. Highway 99W, thence northerly along Hwy 99W to the point  
11 of beginning.

12 (B) All ~~new, altered, deepened or converted~~ wells constructed in the Eola  
13 Hills Ground Water Limited Area shall be ~~cased and sealed~~ <sup>constructed</sup> in accordance  
14 with ~~OAR 690, Division 210~~ with the following additional requirements:

15 (a) All wells, in all aquifers, shall have a minimum 3/4-inch diameter  
16 dedicated measuring tube installed at the time of pump installation,  
17 pump repair or pump replacement (See Figure 200-5 and OAR 690-  
18 215-0200).

← No 6" Minimum casing requirement like Petes Mountain?

19 (b) All new and deepened wells developing water from basalt in the  
20 Eola Hills Ground Water Limited Area shall be limited to one aquifer  
21 and shall be continuously cased and sealed to within 100 feet of the  
22 bottom of the hole. Continuous sealing may include the use of  
impermeable sealing material between an upper and lower sealing interval.

23 (C) Alternatives to the special area standards shall be approved ~~only~~  
24 if it can be demonstrated that the alternative techniques proposed to  
25 be used are ~~as effective as the techniques required in subsections~~ <sup>in facilitating water level measurements with similar</sup>  
26 ~~(3)(B) above~~ <sup>close as those specified in (3)(B)(a) above and/or demonstrate that there</sup>  
27 Department. In addition, follow-up testing may be required by the  
28 Department to insure the effectiveness of the alternative technique.

is no commingling in the uncased borehole by use of a downhole video thereby allowing extension of the 100 foot limit in (3)(B)(b) above.

New language is in bold and underlined: example  
All italicized text in brackets [example] is proposed to be removed  
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K ———

1 ~~(D) Except as they may conflict with subsection (3)(B), all other~~  
2 ~~provisions of Oregon Administrative Rules for Well Construction and~~  
3 Maintenance Standards apply.

4 (E) This rule is applicable to *new wells constructed and well deepening, occurring after* wells for which pump installation, repair  
5 or replacement began on or after July 1, 2008.

6 690-200-0030

7 **Public Safety**

8 No water supply well shall be constructed, maintained, or abandoned in  
9 such a manner as to constitute a health threat, or health hazard or a menace  
10 to public safety.

11 Stat. Auth.: ORS 183, ORS 536, ORS 537 & ORS 540

12 Stats. Implemented: ORS 183, ORS 536, ORS 537 & ORS 540

13 Hist.: WRD 3, f. & ef. 2-18-77; WRD 9-1978, f. 12-12-78, ef. 1-1-79,

14 Renumbered from 690-060-0010 by WRD 13-1986, f. 10-7-86, ef. 11-1-

15 86; WRD 21-1990, f. & cert. ef. 12-14-90; WRD 7-2001, f. & cert. ef. 11-

16 15-01

17 **690-200-0040**

18 **Wells Cannot be Used for Disposal of Contaminants**

19 No water supply well shall be used as a disposal pit for sewage, industrial  
20 waste, or other materials that could contaminate the ground water supply.

21 Stat. Auth.: ORS 183, ORS 536, ORS 537 & ORS 540

22 Stats. Implemented: ORS 183, ORS 536, ORS 537 & ORS 540

23 Hist.: WRD 9-1978, f. 12-12-78, ef. 1-1-79; Renumbered from 690-062-

New language is in bold and underlined: example

All italicized text in brackets [example] is proposed to be removed

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1 Stat. Auth.: ORS 183, ORS 536, ORS 537 & ORS 540  
2 Stats. Implemented: ORS 183, ORS 536, ORS 537 & ORS 540  
3 Hist.: WRD 7-2001, f. & cert. ef. 11-15-01

4 **690-200-0050**

5 **Definitions**

6 The Water Resources Commission uses the definitions of the words listed  
7 below in the administration and enforcement of Oregon's Ground Water  
8 Law and the Rules and Regulations for the Construction and Alteration of  
9 Wells. No other definitions of these same words apply:

10 (1) "Abandonment, Permanent" means to remove a well from service by  
11 completely filling it in such a manner that vertical movement of water  
12 within the well bore and within the annular space surrounding the well  
13 casing, is effectively and permanently prevented. If a portion of a well is  
14 to be abandoned in order to prevent commingling, waste, or loss of  
15 artesian pressure, the abandonment shall conform with the requirements of  
16 OAR chapter 690, division 220 for water supply wells. This term is  
17 synonymous with "decommission."

18 (2) "Abandonment, Temporary" means to remove a drilling machine from  
19 a well site after completing or altering a well provided the well is not  
20 immediately put into service, or to remove a well from service with the  
21 intent of using it in the future.

22 (3) "Access Port" means a minimum 1/2-inch tapped hole and plug, a 1/2-  
23 inch capped pipe welded onto the casing in the upper portion of a water  
24 supply well, **or a dedicated measuring tube** to permit unobstructed entry  
25 to determine the water level in the well at any time.,

New language is in bold and underlined: **example**  
All italicized text in brackets [*example*] is proposed to be removed  
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1 690-210-0280

2 Access Ports, Dedicated Measuring Tubes and Airlines

3 All water supply wells shall be equipped with a usable access port with a minimum diameter of

4 1/2 inch for the purpose of determining the water level in the well at anytime. Dedicated

5 measuring tubes are recommended to be installed on all wells at the time of pump

6 installation. Where required, dedicated measuring tubes shall be a minimum of 3/4 inch

7 schedule 40 PVC extending to the top of the pump (See Dedicated Measuring Tube

8 Diagram and Specifications in Figure 200-5). An airline is not a substitute for a required

9 dedicated measuring tube and, if installed, must enter the well in a location other than the

10 access port. [*Unless it is located inside the well casing, the*] A[a]ccess ports, <sup>excluding</sup> dedicated

11 measuring tubes, <sup>and</sup> or airlines shall be capped and be a minimum of twelve inches above finished

12 ground surface or pumphouse floor[. *Dedicated measuring tubes shall be completed as specified*

13 *In Figures — and — .* the landowner will be required to provide the access port.] (See Figure 210-12[.]) (See Figure

14 200-5). The access port, [*and*] airline and dedicated measuring tube on all water supply wells

15 required by OAR 690-210-0280 shall be maintained in a condition that will prevent

16 contamination of the ground water, and shall remain unobstructed and be maintained by the

17 landowner so that the water level can be determined at any time.

18 ~~(ED NOTE: Figures referenced are available from the agency.)~~

20 Stat. Auth.: ORS 536.090 & ORS 537.505 - ORS 537.795

21 Stats. Implemented:

New language is in bold and underlined: Example

All italicized text in brackets [*example*] is proposed to be removed

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1 well identification label placement instructions.

2 [ED. NOTE: Appendix referenced in this rule is available from the agency.]

3

4 Stat. Auth.: ORS 536.090 & ORS 537.505 - ORS 537.795

5 Stats. Implemented: ORS 536.090 & ORS 537.505 - ORS 537.795

6 Hist.: WRD 7-2001, f. & cert. ef. 11-15-01

7

8 690-215-0060

9 **Access Ports, Dedicated Measuring Tubes or Airlines**

10 All water supply wells shall be equipped with an unobstructed access port with a minimum  
11 diameter of 1/2 inch for the purpose of determining the water level in the well at any time.

12 **Dedicated measuring tubes are recommended to be installed on all wells at the time of**  
13 **pump installation. Where required, dedicated measuring tubes shall be a minimum of 3/4**

14 **inch diameter schedule 40 PVC and shall extend to the top of the pump. The dedicated**

15 **measuring tube shall be *In accordance with the requirements of Figures \_\_\_\_\_ or \_\_\_\_\_.***

16 **~~pump column at 10-foot intervals with 10-mil plastic tape. The lower five feet of the~~**

17 **~~dedicated measuring tube shall be either 0.020-inch machine-slotted well screen or the~~**

18 **~~lower 20 feet of the dedicated measuring tube shall be extensively perforated with 1/8 inch~~**

19 **~~holes. The dedicated measuring tube shall be plugged or capped at the bottom (Figure 200-~~**

20 **~~5). The dedicated measuring tube shall not be reduced in size over the length of the pipe~~**

21 **~~and shall remain free from wire or other obstruction. An airline is *not an access port and is*~~**

New language is in bold and underlined: **Example**

All italicized text in brackets [example] is proposed to be removed

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1 required dedicated measuring tube and, if installed, must enter the well in a location other  
2 than the access port. Access ports, <sup>excluding</sup> dedicated measuring tubes, <sup>and</sup> or airlines [Unless it located  
3 inside the well casing, access ports or airlines] shall be capped and a minimum of twelve inches  
4 above finished ground surface or pumphouse floor. if the well has a pitless adaptor then the  
5 dedicated measuring tube shall terminate within six inches of the top of the well casing. [If  
6 an airline is installed and cannot be used as an access port, it must enter the well in a location  
7 other than the access port.] The access port, [or] airline and dedicated measuring tube on all  
8 water supply wells required by OAR 690-210-0280 shall be maintained in a condition that will  
9 prevent contamination of the ground water, and shall remain unobstructed and be maintained by  
10 the landowner so that the water level can be determined at any time.

11  
12 Stat. Auth.: ORS 183, ORS 536, ORS 537 & ORS 540

13 Stats. Implemented:

14 Hist.: WRD 3, f. & ef. 2-18-77; WRD 9-1978, f. 12-12-78, ef. 1-1-79; WRD 13-1986, f. 10-7-86, ef. 11-1-86,

15 Renumbered from 690-062-0015; WRD 7-2001, f. & cert. ef. 11-15-01

16

17 **690-215-0070**

18 **Pressure Gauge**

19 The pressure gauge and petcock valve required by OAR 690-210-0155 shall be maintained so  
20 that the artesian pressure can be accurately determined at any time[.] (See Figure 210-7[.]).

21 [ED. NOTE: Figures referenced in this rule are available from the agency.]

New language is in bold and underlined: Example

All italicized text in brackets [example] is proposed to be removed

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2 Stat. Auth.: ORS 183, ORS 536, ORS 537 & ORS 540

3 Stats. Implemented:

4 Hist.: WRD 3, f. & ef. 2-18-77; WRD 9-1978, f. 12-12-78, ef. 1-1-79; WRD 13-1986, f. 10-7-86, ef. 11-1-86,

5 Renumbered from 690-062-0020; WRD 7-2001, f. & cert. ef. 11-15-01

6

7 **690-215-0080**

8 **Flowmeters and Dedicated Measuring Tubes**

9 The Director may require the landowner to install totalizing flowmeters ~~or dedicated measuring~~  
10 ~~tubes~~ on any water supply well, either as a condition of a water right permit or at a later date as  
11 circumstances may warrant. The landowner may be required to install totalizing flowmeters ~~or~~  
12 ~~dedicated measuring tubes~~ on existing permitted wells and on wells which are exempted by  
13 ORS 537.545.

14

15 Stat. Auth.: ORS 183, ORS 536, ORS 537 & ORS 540

16 Stats. Implemented:

17 Hist.: WRD 13-1986, f. 10-7-86, ef. 11-1-86; WRD 7-2001, f. & cert. ef. 11-15-01

18

19 **690-215-0090**

20 **Conversion to an Artesian Well**

21 If a water supply well becomes artesian upon deepening, the well shall be cased, sealed and  
22 completed in accordance with OAR 690-210-0155.

New language is in bold and underlined: **Example**

All italicized text in brackets [example] is proposed to be removed

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Stat. Auth.: ORS 183, ORS 536, ORS 537 & ORS 540

Stats. Implemented:

Hist.: WRD 9-1978, f. 12-12-78, ef. 1-1-79; WRD 13-1986, f. 10-7-86, ef. 11-1-86, Renumbered from 690-061-0236; WRD 7-2001, f. & cert. ef. 11-15-01

**690-215-0100**

**Drilling in a Dug Well**

In no case shall a dug well be deepened by drilling methods.

Stat. Auth.: ORS 183, ORS 536, ORS 537 & ORS 540

Stats. Implemented:

Hist.: WRD 9-1978, f. 12-12-78, ef. 1-1-79; WRD 13-1986, f. 10-7-86, ef. 11-1-86, Renumbered from 690-061-0241

**690-215-0200**

**Dedicated Measuring Tube**

**A dedicated measuring tube as described in 690-215-0060 shall be installed in any water supply well at the time of pump installation, pump repair or pump replacement in the following areas (See Figures 200-4, 200-5 and 200-7):** *(Plus figure for pitless application)*

1. **Pete's Mountain Area of Clackamas County (See OAR 690-200-0028(2)).**
2. **Eola Hills Ground Water Limited Area of Polk and Yamhill Counties (See OAR 690-200-0028(3)).**



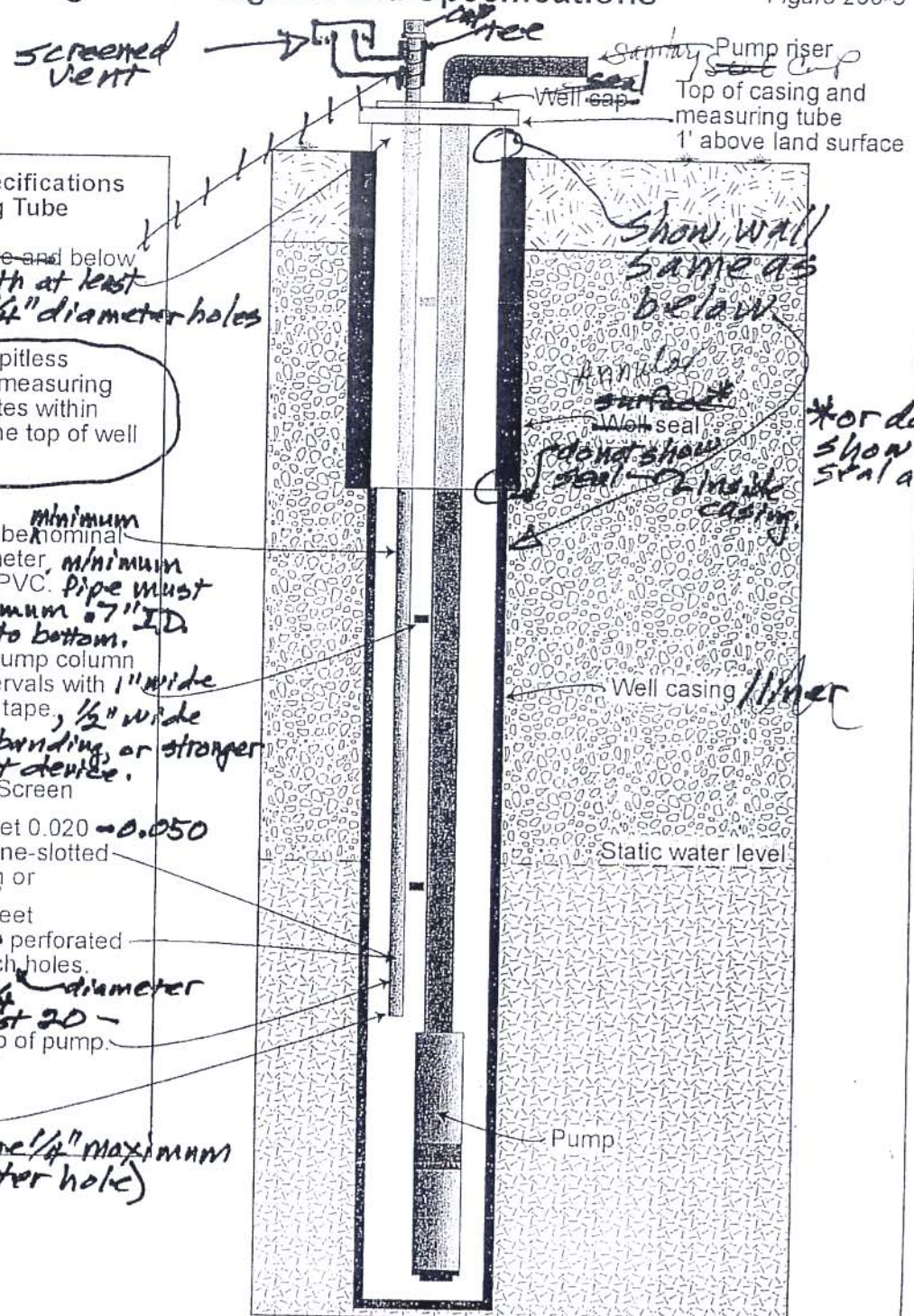
Provide another drawing for pitless installations.

### Measuring Tube Diagram and Specifications

Figure 200-5

#### Minimum Specifications for Measuring Tube

- Vented above and below well cap with at least six  $\frac{1}{8}$ "- $\frac{1}{4}$ " diameter holes
- If well has a pitless adaptor, the measuring tube terminates within 6 inches of the top of well casing.
- Measuring tube nominal 3/4 inch diameter, <sup>minimum</sup> schedule 40 PVC. <sup>minimum</sup> Pipe must have minimum 7" ID from top to bottom.
- Attached to pump column at 20 foot intervals with 1" wide 10 mil plastic tape,  $\frac{1}{2}$ " wide stainless banding, or stronger attachment device.
- Perforation / Screen
  - Lower 5 feet 0.020 - 0.050 inch machine-slotted well screen or
  - Lower 20 feet extensively perforated with  $\frac{1}{8}$  inch holes,  $\frac{1}{4}$ " diameter at least 20 -
- Extends to top of pump.
- Plug or cap. (may have  $\frac{1}{4}$ " maximum diameter hole)



\*or don't show surface seal at all.

22

This diagram details the recommended minimum standards for a dedicated measuring tube. A measuring tube may be constructed in a manner that exceeds these standards without prior Department approval. The dedicated measuring tube shall have no sharp inside edges or reduction in length of the pipe and shall remain free from wires or any other obstruction. Do not crush the tube with ties or otherwise - maintain minimum 7 inch diameter clearance throughout the ID of the tube.

TO: Water Resources Department  
725 Summer Street NE, Suite A  
Salem, OR 97301-1271

ATTN: Rule Coordinator

Fax: 503-986-0903

e-mail: [rule-coordinator@wrd.state.or.us](mailto:rule-coordinator@wrd.state.or.us)

Date: March 7, 2008

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FROM: Bruce K. Moore  
(name)

252 Half Mile Rd.  
(mailing address)

Roseburg, OR. 97470  
(city, state, zip)

Please find my comments herein related to the proposed rules establishing special area standards for well construction and maintenance in the Eola Hills Ground Water Limited Area of Polk and Yamhill Counties and in the Petes Mountain Area in Clackamas County.

*I think the changes made on pages of this report should be used on the new rules.*

*I think a driller should be able to use Bentonite hole plug to abandon all wells.*

*I think the 50 ft. limit should be taken off for the surface seal.*

Signature: Bruce K. Moore

(Note: Letters or other materials expressing your opinion need not be typed, but should be legible.)

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1 [ED. NOTE: Tables and Figures referenced are available from the  
2 agency.]

3 Stat. Auth: ORS 536.027, ORS 536.090 & ORS 537.505 - ORS 537.795  
4 Stats. Implemented: ORS 536.090 & ORS 537.505 - ORS 537.795  
5 Hist. WRD 7-1988, f. & cert. ef. 6-29-88; WRD 8-1993, f. 12-14-93, cert.  
6 ef. 1-1-94; WRD 7-2001, f. & cert. ef. 11-15-01

7 **690-200-0028**

8 **Designated Special Area Standards**

9 (1) Special Area Standards for the Construction and Alteration of Water  
10 Supply Wells in the Lakeview Area.

11 (A) As used in this rule and illustrated in Figure 200-3, "The Lakeview  
12 Area" includes the area located in Sections 4, 5, 8 and 9 of Township 39  
13 South, Range 20 East of the Willamette Meridian, Lake County, Oregon.  
14 Beginning at a point on the West line of Section 4, said point bears South  
15 1 40' 45" East - 2245.31 feet from the Northwest Corner of Section 4;  
16 thence South 89 54' 45" East - 1907.04 feet to the West right of way line of  
17 the Fremont Logging Road; thence South 39 26' 40" East along the West  
18 right of way line of the Fremont Logging Road - 3095.16 feet, thence  
19 South 1 53' 14" East - 617.32 feet to the South line of Section 4; thence  
20 continuing in Section 9 - South 00 13' 8" West parallel to the North South  
21 centerline of Section 9 - 2649.14 feet to the East West centerline of  
22 Section 9; thence South 89 45' 31" West along the East West centerline of  
23 Section 9 - 3782.55 feet more or less to the West line of Section 9; thence  
24 West along the East West centerline of Section 8 - 1320.00 feet more or  
25 less to the center East 1/16 corner of Section 8; thence North 2640.00 feet  
26 more or less to the East 1/16 corner common to Sections 5 and 8; thence  
27 North 1 41' 33" West - 2630.48 feet more or less to the center East 1/16

New language is in bold and underlined: **example**

All italicized text in brackets [*example*] is proposed to be removed

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1 corner of Section 5, thence North 1 40' 45" West - 410 32 feet, thence  
2 South 59 54' 45" East - 1307 02 feet more or less to the point of  
3 beginning

4 (B) Any new, altered, deepened or converted well in the sedimentary units  
5 (clay, sand, silt, gravel) in the Lakeview Area shall be cased and sealed  
6 according to OAR 690, Division 210 with the following additional  
7 requirements.

8 (a) Unperforated casing and seal shall extend from land surface to a depth  
9 of 250 feet below land surface; and

10 (b) Perforated casing may extend below the seal

11 (C) Liner installed in any new, altered, deepened or converted well in the  
12 sedimentary units (clay, sand, silt, gravel) in the Lakeview Area shall not  
13 extend more than 10 feet above the bottom of the unperforated casing.

14 (D) Alternatives to the special area standards shall be approved only if it  
15 can be demonstrated that the alternative techniques proposed to be used  
16 are as effective as the techniques required in subsection (1)(B) and (1)(C)  
17 above. Such alternatives require prior written approval by the Department  
18 and follow-up testing as may be required by the Department.

19 (E) Except as they may conflict with subsection (1) (B) and (1)(C), all  
20 other provisions of Oregon Administrative Rules for Well Construction  
21 and Maintenance Standards apply.

22 (F) This rule is applicable to wells for which construction, alteration,  
23 deepening or conversion began on or after April 1, 2004.

New language is in bold and underlined: **example**

All italicized text in brackets *[example]* is proposed to be removed

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1 (G) This special area standard may be revised at a future date when  
2 additional information and analysis is provided from other agencies  
3 including the Oregon Department of Environmental Quality.

4 Stat. Auth.: ORS 537.780, 536.027, 536.090

5 Stats. Implemented: ORS 537.505 - 537.795, 537.780(1)

6 Hist.: WRD 2-2004, f. & cert. ef. 4-1-04

7 2) Special Area Standards for the Construction, Conversion and  
8 Maintenance of Water Supply Wells for the "Petes Mountain Area",  
9 Clackamas County.

10 (A) As used in this rule and illustrated in Figure 200-4, "The Petes Mountain  
11 Area" includes the area located in Sections 28, 29, 32, 33 and 34 Township 2  
12 South, Range 1 East, Willamette Meridian; and Sections 2, 3, 4, 5, 9, 10, 11,  
13 15 and 16, Township 3 South, Range 1 East, Willamette Meridian.

14 Beginning at the intersection of SW Ek Road and SW Stafford Road (T.2 S.,  
15 R.1 E., Sec. 29); thence southerly along SW Stafford Road to SW Mountain  
16 Road; thence southerly along SW Mountain Road to SW Hoffman Road;  
17 thence easterly along SW Hoffman Road to the intersection of SW Hoffman  
18 Road, SW Petes Mountain Road and SW Riverwood Drive; thence due east  
19 to the Willamette River; thence northerly along the Willamette River to the  
20 mouth of the Tualatin River; thence northwesterly along the Tualatin River  
21 to SW Borland Road (a.k.a. Willamette Falls Drive); thence northwesterly  
22 along SW Borland Road to SW Ek Road ; thence westerly along SW Ek  
23 Road to SW Stafford Road, to the point of beginning.

24 (B) All ~~new, altered, deepened or converted~~ wells constructed in the  
25 Petes Mountain Area shall be ~~cased and sealed~~ <sup>constructed</sup> in accordance with  
26 ~~OAR 690, Division 210~~ with the following additional requirements:

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All italicized text in brackets [example] is proposed to be removed  
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1 (a) All new wells shall have a nominal minimum well casing diameter  
2 of at least 6 inches.

3 (b) All wells shall have a minimum 1/4-inch diameter dedicated  
4 measuring tube installed at the time of pump installation, pump  
5 repair or pump replacement (See Figure 200-5 and OAR 690-215-  
6 0200).

7 (C) Alternatives to the special area standards shall be approved ~~only~~  
8 if it can be demonstrated that the alternative techniques proposed to  
9 be used are as effective ~~as the techniques required in subsection (2)(B)~~  
10 *in facilitating water level measurements with similar*  
11 *ease as those specified in (2)(B) above*  
12 Such alternatives require prior written approval by the  
13 Department. In addition, follow-up testing may be required by the  
14 Department to insure the effectiveness of the alternative technique.

13 (D) Except as they may conflict with subsection (2)(B), all other  
14 provisions of Oregon Administrative Rules for Well Construction and  
15 Maintenance Standards apply.

16 (E) This rule is applicable to *new wells constructed on or after July 1, 2008 and to all*  
17 wells for which pump installation, repair  
18 or replacement began on or after July 1, 2008.

18 ~~(F) This special area standard may be revised at a future date when~~  
19 ~~additional information and analysis is provided from other agencies~~  
20 ~~including the Oregon Department of Environmental Quality.~~

21 3) Special Area Standards for the Construction, Conversion and  
22 Maintenance of Water Supply Wells for the "Eola Hills Ground Water  
23 Limited Area," Polk and Yamhill Counties.

24 (A) As used in this rule and illustrated in Figure 200-7, "The Eola Hills  
25 Ground Water Limited Area" includes all or portions of Sections 4 through

New language is in bold and underlined example

All italicized text in brackets [*example*] is proposed to be removed

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1 9, 16 through 21, and 29 through 32, Township 6 South, Range 3 West,  
 2 Willamette Meridian; Sections 3 through 10, 15 through 22, 28, 29 and 30,  
 3 Township 7 South, Range 3 West, Willamette Meridian; Sections 1 through  
 4 5, 8 through 17, 20 through 29, and 32 through 36, Township 6 South, Range  
 5 4 West, Willamette Meridian; and Sections 1 through 30, Township 7 South,  
 6 Range 4 West, Willamette Meridian. The boundary of the Eola Hills area is  
 7 as follows: Beginning at the intersection of the south line of Township 5  
 8 South and U.S. Highway 99W, thence east along the township line to the  
 9 Willamette River, thence southerly to Oregon State Highway 22, thence  
 10 westerly to U.S. Highway 99W, thence northerly along Hwy 99W to the point  
 11 of beginning.

12 (B) All ~~new, altered, deepened or converted~~ wells constructed in the Eola  
 13 Hills Ground Water Limited Area shall be ~~cased and sealed~~ <sup>constructed</sup> in accordance  
 14 with ~~OAD 690, Division 210~~ with the following additional requirements:

15 (a) All wells, in all aquifers, shall have a minimum 3/4-inch diameter  
 16 dedicated measuring tube installed at the time of pump installation,  
 17 pump repair or pump replacement (See Figure 200-5 and OAR 690-  
 18 215-0200).

← No 6" Minimum casing requirement like Petes Mountain?

19 (b) All new and deepened wells developing water from basalt in the  
 20 Eola Hills Ground Water Limited Area shall be limited to one aquifer  
 21 and shall be ~~continuously~~ <sup>continuously</sup> cased and sealed to within 100 feet of the  
 22 bottom of the hole. *Continuous sealing may include the use of impermeable sealing material between an upper and lower sealing interval.*

23 (C) Alternatives to the special area standards shall be approved ~~only~~  
 24 if it can be demonstrated that the alternative techniques proposed to  
 25 be used are ~~as effective as the techniques required in subsections~~ <sup>in facilitating water level measurements with similar</sup>  
 26 ~~(3)(B) above~~ <sup>ease as those specified in (3)(B) above and/or demonstrate that there</sup> Such alternatives require prior written approval by the  
 27 Department. In addition, follow-up testing may be required by the  
 28 Department to insure the effectiveness of the alternative technique.

is no casing in the uncased borehole by use of a downhole video thereby allowing extension of the 100 foot limit in (3)(B) (b) above.

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1 ~~(D) Except as they may conflict with subsection (3)(B), all other~~  
2 ~~provisions of Oregon Administrative Rules for Well Construction and~~  
3 ~~Maintenance Standards apply.~~

4 (E) This rule is applicable to <sup>new wells constructed and well deepening, occurring after</sup> wells for which pump installation, repair  
5 or replacement began on or after July 1, 2008.

6 690-200-0030

7 **Public Safety**

8 No water supply well shall be constructed, maintained, or abandoned in  
9 such a manner as to constitute a health threat, or health hazard or a menace  
10 to public safety.

11 Stat. Auth.: ORS 183, ORS 536, ORS 537 & ORS 540

12 Stats. Implemented: ORS 183, ORS 536, ORS 537 & ORS 540

13 Hist.: WRD 3, f. & ef. 2-18-77; WRD 9-1978, f. 12-12-78, ef. 1-1-79,

14 Renumbered from 690-060-0010 by WRD 13-1986, f. 10-7-86, ef. 11-1-

15 86; WRD 21-1990, f. & cert. ef. 12-14-90; WRD 7-2001, f. & cert. ef. 11-

16 15-01

17 690-200-0040

18 **Wells Cannot be Used for Disposal of Contaminants**

19 No water supply well shall be used as a disposal pit for sewage, industrial  
20 waste, or other materials that could contaminate the ground water supply.

21 Stat. Auth.: ORS 183, ORS 536, ORS 537 & ORS 540

22 Stats. Implemented: ORS 183, ORS 536, ORS 537 & ORS 540

23 Hist.: WRD 9-1978, f. 12-12-78, ef. 1-1-79; Renumbered from 690-062-

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1 Stat. Auth.: ORS 183, ORS 536, ORS 537 & ORS 540  
2 Stats. Implemented: ORS 183, ORS 536, ORS 537 & ORS 540  
3 Hist.: WRD 7-2001, f. & cert. ef. 11-15-01

4 **690-200-0050**

5 **Definitions**

6 The Water Resources Commission uses the definitions of the words listed  
7 below in the administration and enforcement of Oregon's Ground Water  
8 Law and the Rules and Regulations for the Construction and Alteration of  
9 Wells. No other definitions of these same words apply:

10 (1) "Abandonment, Permanent" means to remove a well from service by  
11 completely filling it in such a manner that vertical movement of water  
12 within the well bore and within the annular space surrounding the well  
13 casing, is effectively and permanently prevented. If a portion of a well is  
14 to be abandoned in order to prevent commingling, waste, or loss of  
15 artesian pressure, the abandonment shall conform with the requirements of  
16 OAR chapter 690, division 220 for water supply wells. This term is  
17 synonymous with "decommission."

18 (2) "Abandonment, Temporary" means to remove a drilling machine from  
19 a well site after completing or altering a well provided the well is not  
20 immediately put into service, or to remove a well from service with the  
21 intent of using it in the future.

22 (3) "Access Port" means a minimum 1/2-inch tapped hole and plug, a 1/2-  
23 inch capped pipe welded onto the casing in the upper portion of a water  
24 supply well, **or a dedicated measuring tube** to permit unobstructed entry  
25 to determine the water level in the well at any time.

New language is in bold and underlined: **example**  
All italicized text in brackets *[example]* is proposed to be removed  
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WATER RESOURCES DEPT  
SALEM, OREGON

1 690-210-0280

2 Access Ports, Dedicated Measuring Tubes and Airlines

3 All water supply wells shall be equipped with a usable access port with a minimum diameter of

4 1/2 inch for the purpose of determining the water level in the well at anytime. Dedicated

5 measuring tubes are recommended to be installed on all wells at the time of pump

6 installation. Where required, dedicated measuring tubes shall be a minimum of 3/4 inch

7 schedule 40 PVC extending to the top of the pump (See Dedicated Measuring Tube

8 Diagram and Specifications in Figure 200-5). An airline is not a substitute for a required

9 dedicated measuring tube and, if installed, must enter the well in a location other than the

10 access port. [*Unless it is located inside the well casing, the*] A[a]ccess ports, <sup>*excluding*</sup> dedicated

11 measuring tubes, <sup>*and*</sup> or airlines shall be capped and be a minimum of twelve inches above finished

12 ground surface or pumphouse floor. [*If the well constructor does not install a pump in the well,*

13 *the landowner will be required to provide the access port.*] (See Figure 210-12[.]) (See Figure

14 200-5). The access port, [or]airline and dedicated measuring tube on all water supply wells

15 required by OAR 690-210-0280 shall be maintained in a condition that will prevent

16 contamination of the ground water, and shall remain unobstructed and be maintained by the

17 landowner so that the water level can be determined at any time.

18 ~~ED NOTE. Figures referenced are available from the agency.~~

19

20 Stat. Auth: ORS 536.090 & ORS 537.505 - ORS 537.795

21 Stats. Implemented

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1 well identification label placement instructions

2 [ED. NOTE Appendix referenced in this rule is available from the agency ]

3

4 Stat Auth: ORS 536.090 & ORS 537.505 - ORS 537.795

5 Stats. Implemented: ORS 536.090 & ORS 537.505 - ORS 537.795

6 Hist.: WRD 7-2001, f. & cert. ef. 11-15-01

7

8 690-215-0060

9 Access Ports, Dedicated Measuring Tubes or Airlines

10 All water supply wells shall be equipped with an unobstructed access port with a minimum

11 diameter of 1/2 inch for the purpose of determining the water level in the well at any time.

12 Dedicated measuring tubes are recommended to be installed on all wells at the time of

13 pump installation. Where required, dedicated measuring tubes shall be a minimum of 3/4

14 inch diameter schedule 40 PVC and shall extend to the top of the pump. The dedicated

15 measuring tube shall be *In accordance with the requirements of Figures \_\_\_\_\_ or \_\_\_\_\_.*

16 ~~pump column at 10-foot intervals with 10-mil plastic tape. The lower five feet of the~~

17 ~~dedicated measuring tube shall be either 0.020-inch machine slotted well screen or the~~

18 ~~lower 20 feet of the dedicated measuring tube shall be extensively perforated with 1/8-inch~~

19 ~~holes. The dedicated measuring tube shall be plugged or capped at the bottom (Figure 200-~~

20 ~~5). The dedicated measuring tube shall not be reduced in size over the length of the pipe,~~

21 ~~and shall remain free from wire or other obstruction. An airline is *not an access port and is*~~

New language is in bold and underlined: Example

All italicized text in brackets [example] is proposed to be removed

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1 required dedicated measuring tube and, if installed, must enter the well in a location other  
2 than the access port. Access ports, <sup>excluding</sup> Dedicated measuring tubes, <sup>and</sup> or airlines [Unless it located  
3 *inside the well casing, access ports or airlines*] shall be capped and a minimum of twelve inches  
4 above finished ground surface or pumphouse floor. <sup>Dedicated measuring tubes shall</sup> ~~If the well has a pitless adaptor then the~~  
5 ~~dedicated measuring tube shall terminate within six inches of the top of the well casing.~~ <sup>be completed as specified in Figures \_\_\_\_\_ and \_\_\_\_\_,</sup> [If  
6 *an airline is installed and cannot be used as an access port, it must enter the well in a location*  
7 *other than the access port.*] The access port, [or] airline and dedicated measuring tube on all  
8 water supply wells required by OAR 690-210-0280 shall be maintained in a condition that will  
9 prevent contamination of the ground water, and shall remain unobstructed and be maintained by  
10 the landowner so that the water level can be determined at any time.

11  
12 Stat. Auth : ORS 183, ORS 536, ORS 537 & ORS 540

13 Stats. Implemented:

14 Hist.: WRD 3, f. & ef. 2-18-77, WRD 9-1978, f. 12-12-78, ef. 1-1-79, WRD 13-1986, f. 10-7-86, ef. 11-1-86,

15 Renumbered from 690-062-0015; WRD 7-2001, f. & cert. ef. 11-15-01

16  
17 **690-215-0070**

### 18 **Pressure Gauge**

19 The pressure gauge and petcock valve required by OAR 690-210-0155 shall be maintained so  
20 that the artesian pressure can be accurately determined at any time[.] (See Figure 210-7[.]).

21 [ED. NOTE: Figures referenced in this rule are available from the agency.]

New language is in bold and underlined: **Example**

All italicized text in brackets [example] is proposed to be removed

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1

2 Stat. Auth.: ORS 183, ORS 536, ORS 537 &amp; ORS 540

3 Stats. Implemented

4 Hist.: WRD 3, f. &amp; ef 2-18-77, WRD 9-1978, f 12-12-78, ef 1-1-79, WRD 13-1986, f 10-7-86, ef 11-1-86,

5 Renumbered from 690-062-0020, WRD 7-2001, f. &amp; cert ef 11-15-01

6

7 **690-215-0080**8 **Flowmeters and Dedicated Measuring Tubes**

9 The Director may require the landowner to install totalizing flowmeters **or dedicated measuring**  
10 **tubes** on any water supply well, either as a condition of a water right permit or at a later date as  
11 circumstances may warrant. The landowner may be required to install totalizing flowmeters **or**  
12 **dedicated measuring tubes** on existing permitted wells and on wells which are exempted by  
13 ORS 537.545.

14

15 Stat. Auth.: ORS 183, ORS 536, ORS 537 &amp; ORS 540

16 Stats. Implemented

17 Hist.: WRD 13-1986, f. 10-7-86, ef. 11-1-86, WRD 7-2001, f. &amp; cert ef. 11-15-01

18

19 **690-215-0090**20 **Conversion to an Artesian Well**

21 If a water supply well becomes artesian upon deepening, the well shall be cased, sealed and  
22 completed in accordance with OAR 690-210-0155

New language is in bold and underlined. **Example**  
All italicized text in brackets [example] is proposed to be removed  
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1 required dedicated measuring tube and, if installed, must enter the well in a location other  
2 than the access port. Access ports, <sup>excluding</sup> ~~dedicated measuring tubes,~~ <sup>and</sup> ~~or airlines~~ [Unless it located  
3 inside the well casing, access ports or airlines] shall be capped and a minimum of twelve inches  
4 above finished ground surface or pumphouse floor. <sup>Dedicated measuring tubes shall</sup> ~~If the well has a pitless adaptor then the~~  
5 <sup>be completed as specified in Figures \_\_\_\_\_ and \_\_\_\_\_,</sup> ~~dedicated measuring tube shall terminate within six inches of the top of the well casing. [If~~  
6 an airline is installed and cannot be used as an access port, it must enter the well in a location  
7 other than the access port.] The access port, [or]airline and dedicated measuring tube on all  
8 water supply wells required by OAR 690-210-0280 shall be maintained in a condition that will  
9 prevent contamination of the ground water, and shall remain unobstructed and be maintained by  
10 the landowner so that the water level can be determined at any time.

11

12 Stat. Auth: ORS 183, ORS 536, ORS 537 & ORS 540

13 Stats. Implemented:

14 Hist: WRD 3, f. & ef. 2-18-77; WRD 9-1978, f. 12-12-78, ef. 1-1-79; WRD 13-1986, f. 10-7-86, ef. 11-1-86,

15 Renumbered from 690-062-0015; WRD 7-2001, f. & cert. ef. 11-15-01

16

17 **690-215-0070**

18 **Pressure Gauge**

19 The pressure gauge and petcock valve required by OAR 690-210-0155 shall be maintained so  
20 that the artesian pressure can be accurately determined at any time[.] (See Figure 210-7[.]).

21 [ED. NOTE. Figures referenced in this rule are available from the agency.]

New language is in bold and underlined: Example

All italicized text in brackets [example] is proposed to be removed

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1

2 Stat Auth: ORS 183, ORS 536, ORS 537 & ORS 540

3 Stats. Implemented

4 Hist.: WRD 9-1978, f. 12-12-78, ef. 1-1-79, WRD 13-1986, f. 10-7-86, ef. 11-1-86, Renumbered from 690-061-

5 0236; WRD 7-2001, f. & cert. ef. 11-15-01

6

7 **690-215-0100**

8 **Drilling in a Dug Well**

9 In no case shall a dug well be deepened by drilling methods.

10

11 Stat. Auth.: ORS 183, ORS 536, ORS 537 & ORS 540

12 Stats. Implemented

13 Hist.: WRD 9-1978, f. 12-12-78, ef. 1-1-79, WRD 13-1986, f. 10-7-86, ef. 11-1-86, Renumbered from 690-061-

14 0241

15

16 **690-215-0200**

17

18 **Dedicated Measuring Tube**

19

20 **A dedicated measuring tube as described in 690-215-0060 shall be installed in any water**  
21 **supply well at the time of pump installation, pump repair or pump replacement in the**

22 **following areas (See Figures 200-4, 200-5 and 200-7):** *(Plus figure for pitless application)*

- 23 1. **Pete's Mountain Area of Clackamas County (See OAR 690-200-0028(2)).**  
24 2. **Eola Hills Ground Water Limited Area of Polk and Yamhill Counties (See**  
25 **OAR 690-200-0028(3)).**

26

27

28

New language is in bold and underlined: **Example**

All italicized text in brackets [example] is proposed to be removed

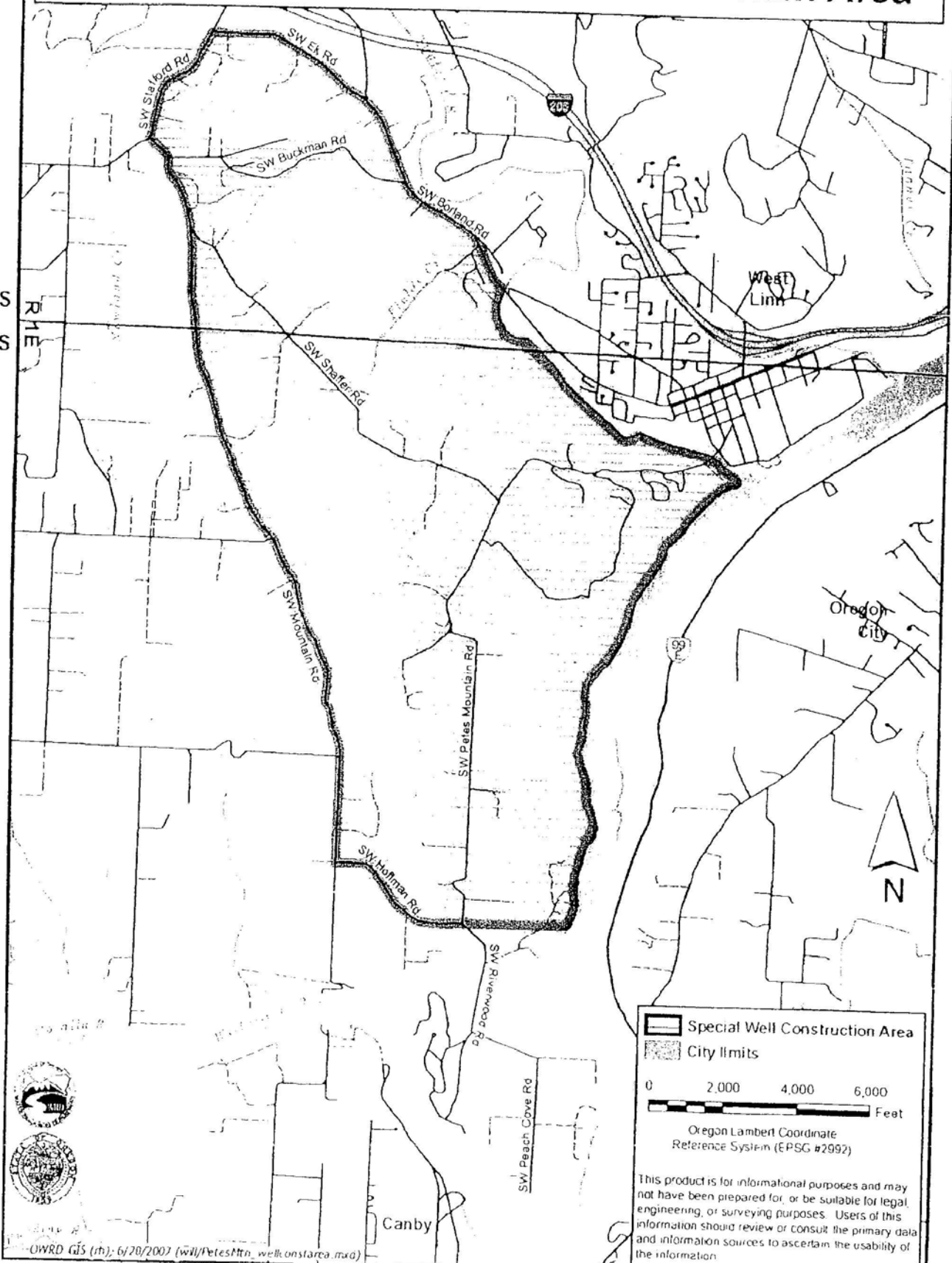
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WATER RESOURCES DEPT. Figure 200-4  
SALEM, OREGON

# Special Area Standards: Petes Mountain Area

T2S  
T3S



**Special Well Construction Area**

**City Limits**

0 2,000 4,000 6,000  
Feet

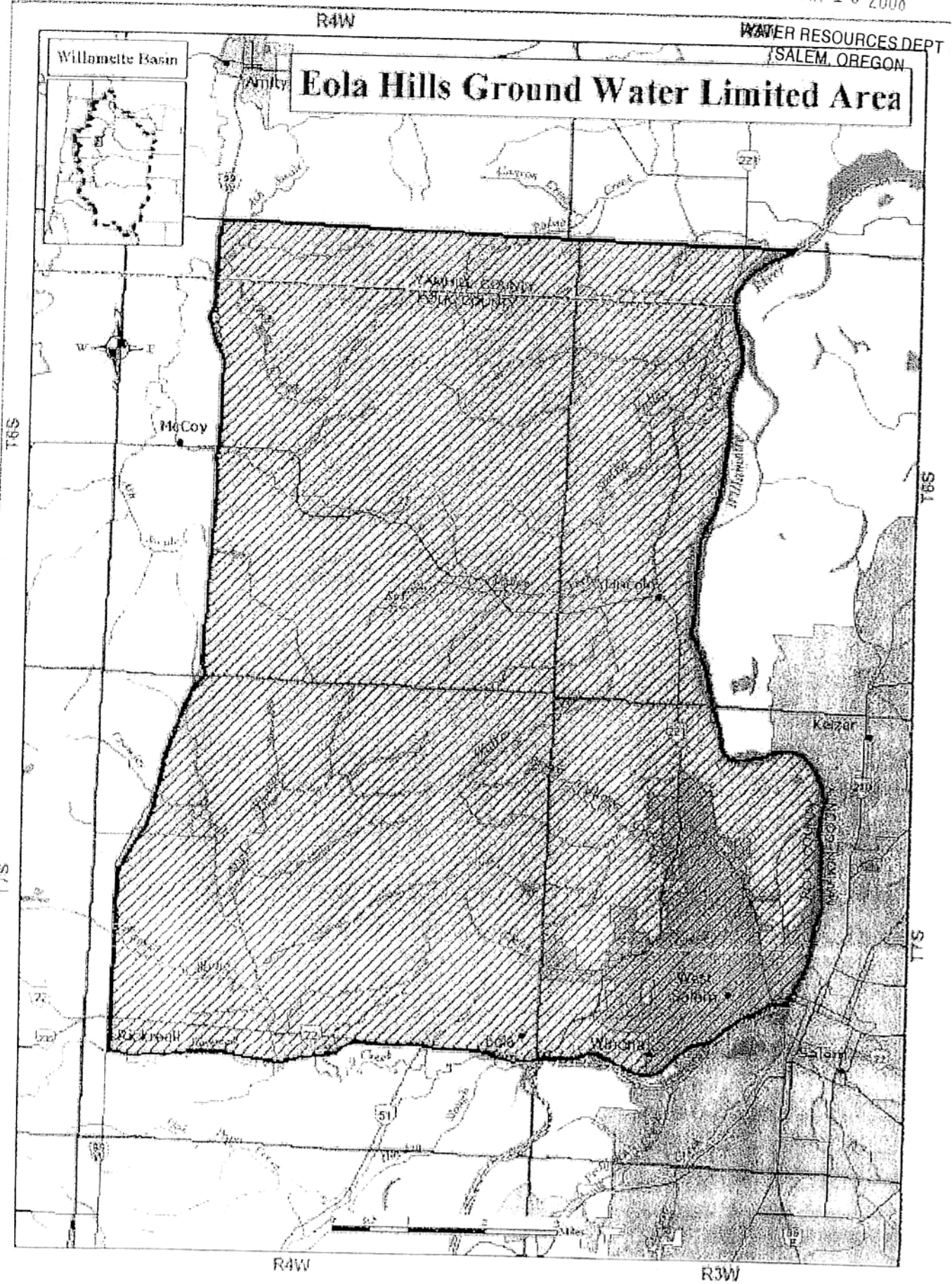
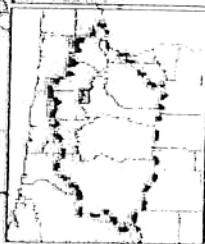
Oregon Lambert Coordinate  
Reference System (EPSG #2992)

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# Eola Hills Ground Water Limited Area

Willamette Basin



R4W

R3W

T6S

T6S

T7S

T7S



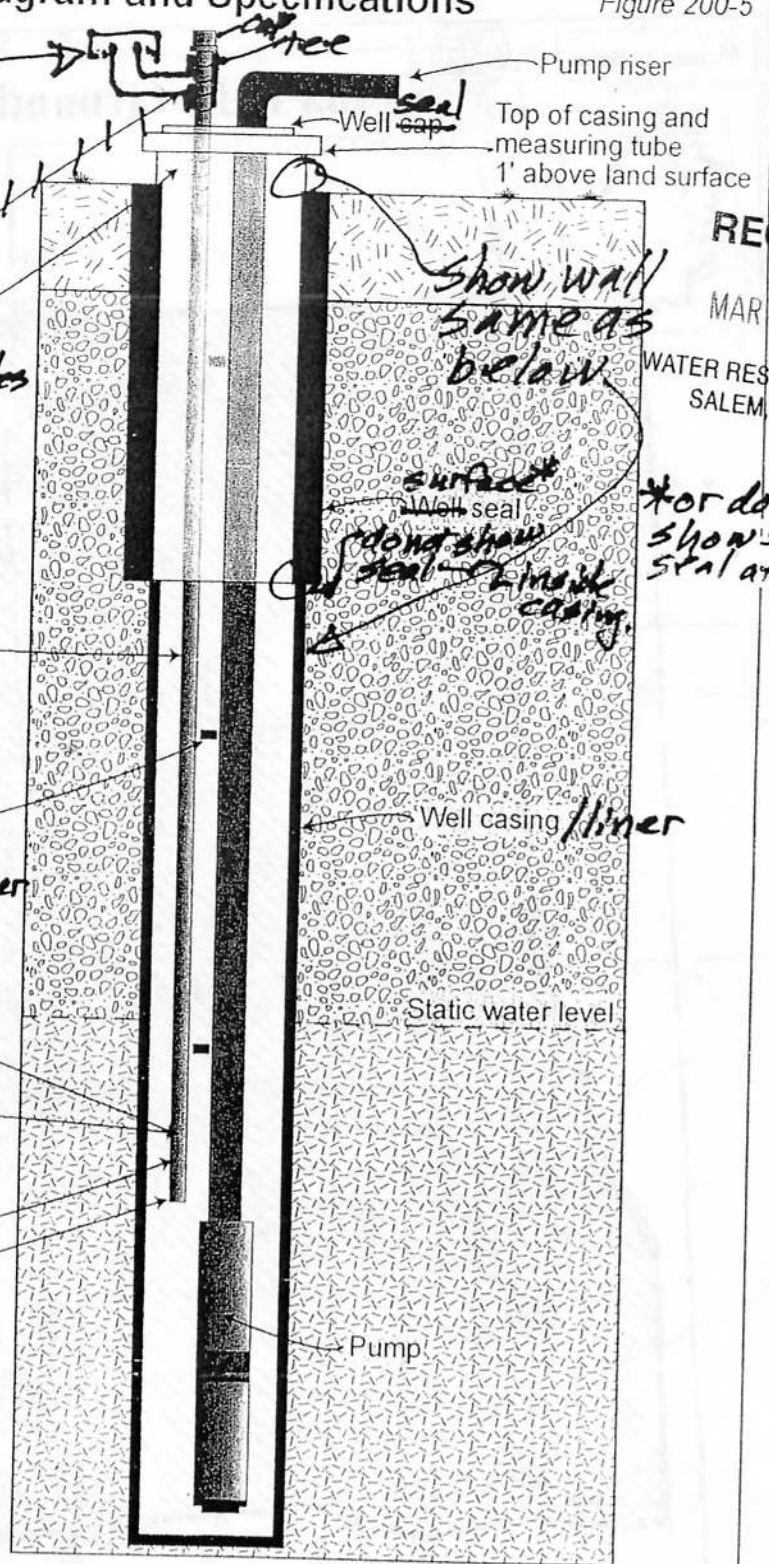
Provide another drawing for pitless installations.

### Measuring Tube Diagram and Specifications

Figure 200-5

#### Minimum Specifications for Measuring Tube

- Vented above and below well cap with at least six  $\frac{1}{8}$ "- $\frac{1}{4}$ " diameter holes
- If well has a pitless adaptor, the measuring tube terminates within 6 inches of the top of well casing.
- Measuring tube nominal  $\frac{3}{4}$  inch diameter, minimum schedule 40 PVC. Pipe must have minimum  $\phi 7$ " ID from top to bottom.
- Attached to pump column at 2 foot intervals with 1" wide 10 mil plastic tape,  $\frac{1}{2}$ " wide stainless bunding, or stronger attachment device.
- Perforation / Screen
  - Lower 5 feet 0.020 - 0.050 inch machine-slotted well screen or
  - Lower 20 feet extensively perforated with  $\frac{1}{8}$  inch holes.
- Extends to top of pump.
- Plug or cap (may have  $\frac{1}{4}$ " maximum diameter hole)



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\*or don't show surface seal at all.

This diagram details the recommended minimum standards for a dedicated measuring tube. A measuring tube may be constructed in a manner that exceeds these standards without prior Department approval. The dedicated measuring tube shall not be ~~sealed~~ <sup>have no sharp inside edges or reduction</sup> in size over the length of the pipe and shall remain free from wires or any other obstruction. Do not crush the tube with ties or otherwise - maintain minimum  $\phi 7$  inch diameter clearance throughout the ID of the tube.

TO: Water Resources Department  
725 Summer Street NE, Suite A

Salem, OR 97301-1271

ATTN: Rule Coordinator

Fax: 503-986-0903

e-mail: [rule-coordinator@wrd.state.or.us](mailto:rule-coordinator@wrd.state.or.us)

Date: March 07, 2008

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FROM: Staden Daniel D  
(name)

1040 Woodland Dr  
(mailing address)

Silverton OR 97381  
(city, state, zip)

Please find my comments herein related to the proposed rules establishing special area standards for well construction and maintenance in the Eola Hills Ground Water Limited Area of Polk and Yamhill Counties and in the Petes Mountain Area in Clackamas County.

- 1) Dedicated 3/4" measuring tube shall have a min inside dia of  
.750 to allow for industry standard transducer clearance
- 2) Top terminal connection of measuring tube at well head  
shall be attached in a manner to allow well head (pump column)  
to rotate without breaking or damaging measuring tube  
\*(This movement will take place during the life span of the well and,  
if the tube is not flexible it will be damaged and rendered unusable)

Signature: \_\_\_\_\_

(Note: Letters or other materials expressing your opinion need not be typed, but should be legible.)

1 [ED. NOTE: Tables and Figures referenced are available from the  
2 agency ]

3 Stat. Auth.: ORS 536.027, ORS 536.090 & ORS 537.505 - ORS 537.795

4 Stats. Implemented: ORS 536.090 & ORS 537.505 - ORS 537.795

5 Hist.: WRD 7-1988, f. & cert. ef. 6-29-88; WRD 8-1993, f. 12-14-93, cert.  
6 ef. 1-1-94, WRD 7-2001, f. & cert. ef. 11-15-01

7 **690-200-0028**

8 **Designated Special Area Standards**

9 (1) Special Area Standards for the Construction and Alteration of Water  
10 Supply Wells in the Lakeview Area.

11 (A) As used in this rule and illustrated in Figure 200-3, "The Lakeview  
12 Area" includes the area located in Sections 4, 5, 8 and 9 of Township 39  
13 South, Range 20 East of the Willamette Meridian, Lake County, Oregon.  
14 Beginning at a point on the West line of Section 4, said point bears South  
15 1 40' 45" East - 2245.31 feet from the Northwest Corner of Section 4;  
16 thence South 89 54' 45" East- 1907.04 feet to the West right of way line of  
17 the Fremont Logging Road; thence South 39 26' 40" East along the West  
18 right of way line of the Fremont Logging Road - 3095.16 feet; thence  
19 South 1 53' 14" East - 617.32 feet to the South line of Section 4; thence  
20 continuing in Section 9 - South 00 13' 8" West parallel to the North South  
21 centerline of Section 9 - 2649.14 feet to the East West centerline of  
22 Section 9; thence South 89 45' 31" West along the East West centerline of  
23 Section 9 - 3782.55 feet more or less to the West line of Section 9; thence  
24 West along the East West centerline of Section 8 - 1320.00 feet more or  
25 less to the center East 1/16 corner of Section 8; thence North 2640.00 feet  
26 more or less to the East 1/16 corner common to Sections 5 and 8; thence  
27 North 1 41' 33" West - 2630.48 feet more or less to the center East 1/16

New language is in bold and underlined: **example**

All italicized text in brackets *[example]* is proposed to be removed

**February 1, 2008 Hearing Draft**



TO: Water Resources Department

Date: March 7, 2008

725 Summer Street NE, Suite A

Salem, OR 97301-1271

ATTN: Rule Coordinator

Fax: 503-986-0903

e-mail: [rule-coordinator@wrд.state.or.us](mailto:rule-coordinator@wrд.state.or.us)

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FROM: Rich Gerig Fishers Supply Inc.  
(name)

659 SW 1st Ave  
(mailing address)

Canby, Or 97003  
(city, state, zip)

Please find my comments herein related to the proposed rules establishing special area standards for well construction and maintenance in the Eola Hills Ground Water Limited Area of Polk and Yamhill Counties and in the Petes Mountain Area in Clackamas County.

due to size of pipe and tube in certain wells  
there should be no smaller than a 4 1/2" liner  
installed in these deep new wells  
with the use of Ductile Iron check valves the space is  
too tight with a 4" liner

have had a problem with this on a 200' well in Westlin  
liner came with pump when pump was pulled  
Driller installed 4 1/2" liner all was ok

Signature: Rich Gerig

(Note: Letters or other materials expressing your opinion need not be typed, but should be legible.)

1 [ED. NOTE: Tables and Figures referenced are available from the  
2 agency.]

3 Stat. Auth.: ORS 536.027, ORS 536.090 & ORS 537.505 - ORS 537.795

4 Stats. Implemented: ORS 536.090 & ORS 537.505 - ORS 537.795

5 Hist.: WRD 7-1988, f. & cert. ef. 6-29-88; WRD 8-1993, f. 12-14-93, cert.  
6 ef. 1-1-94; WRD 7-2001, f. & cert. ef. 11-15-01

7 **690-200-0028**

8 **Designated Special Area Standards**

9 (1) Special Area Standards for the Construction and Alteration of Water  
10 Supply Wells in the Lakeview Area.

11 (A) As used in this rule and illustrated in Figure 200-3, "The Lakeview  
12 Area" includes the area located in Sections 4, 5, 8 and 9 of Township 39  
13 South, Range 20 East of the Willamette Meridian, Lake County, Oregon.  
14 Beginning at a point on the West line of Section 4, said point bears South  
15 1 40' 45" East - 2245.31 feet from the Northwest Corner of Section 4;  
16 thence South 89 54' 45" East- 1907.04 feet to the West right of way line of  
17 the Fremont Logging Road; thence South 39 26' 40" East along the West  
18 right of way line of the Fremont Logging Road - 3095.16 feet; thence  
19 South 1 53' 14" East - 617.32 feet to the South line of Section 4; thence  
20 continuing in Section 9 - South 00 13' 8" West parallel to the North South  
21 centerline of Section 9 - 2649.14 feet to the East West centerline of  
22 Section 9; thence South 89 45' 31" West along the East West centerline of  
23 Section 9 - 3782.55 feet more or less to the West line of Section 9; thence  
24 West along the East West centerline of Section 8 - 1320.00 feet more or  
25 less to the center East 1/16 corner of Section 8; thence North 2640.00 feet  
26 more or less to the East 1/16 corner common to Sections 5 and 8; thence  
27 North 1 41' 33" West - 2630.48 feet more or less to the center East 1/16

New language is in bold and underlined: **example**

All italicized text in brackets [*example*] is proposed to be removed

**February 1, 2008 Hearing Draft**

TO: Water Resources Department

Date: March 7, 2008

725 Summer Street NE, Suite A

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Salem, OR 97301-1271

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ATTN: Rule Coordinator

WATER RESOURCES DEPT  
SALEM, OREGON

Fax: 503-986-0903

e-mail: [rule-coordinator@wrд.state.or.us](mailto:rule-coordinator@wrд.state.or.us)

FROM:

RICHARD BECK

(name)

10300 SE CHAMPAGNE LN

(mailing address)

HAPPY VALLEY, OR 97086

(city, state, zip)

Please find my comments herein related to the proposed rules establishing special area standards for well construction and maintenance in the Eola Hills Ground Water Limited Area of Polk and Yamhill Counties and in the Petes Mountain Area in Clackamas County.

THE COMMISSION, NOT THE DIRECTOR, SHOULD DETERMINE  
THE REQUIREMENT FOR FLOW METERS ON DOMESTIC  
WELLS. INSTALLATION OF A FLOW METER IS A PRELUDE  
TO LIMITING CONSUMPTION WHICH IS A RULE CHANGE.  
SECONDLY, I DON'T THINK YOU SHOULD LIMIT THE MEASURING  
TUBE TO ONLY PVC. POLY PIPE COMES IN 300' ROLLS  
AND WOULD FUNCTION PERFECTLY WITHOUT JOINTS AT OR  
LESS THAN 300'. P.E., POLYETHYLENE CAN BE WELDED  
AND ELIMINATE JOINTS

Signature:

Richard J Beck

(Note: Letters or other materials expressing your opinion need not be typed, but should be legible.)

1 [ED. NOTE: Tables and Figures referenced are available from the  
2 agency.]

3 Stat. Auth.: ORS 536.027, ORS 536.090 & ORS 537.505 - ORS 537.795  
4 Stats. Implemented: ORS 536.090 & ORS 537.505 - ORS 537.795  
5 Hist.: WRD 7-1988, f. & cert. ef. 6-29-88; WRD 8-1993, f. 12-14-93, cert.  
6 ef. 1-1-94; WRD 7-2001, f. & cert. ef. 11-15-01

7 **690-200-0028**

8 **Designated Special Area Standards**

9 (1) Special Area Standards for the Construction and Alteration of Water  
10 Supply Wells in the Lakeview Area.

11 (A) As used in this rule and illustrated in Figure 200-3, "The Lakeview  
12 Area" includes the area located in Sections 4, 5, 8 and 9 of Township 39  
13 South, Range 20 East of the Willamette Meridian, Lake County, Oregon.  
14 Beginning at a point on the West line of Section 4, said point bears South  
15 1 40' 45" East - 2245.31 feet from the Northwest Corner of Section 4;  
16 thence South 89 54' 45" East- 1907.04 feet to the West right of way line of  
17 the Fremont Logging Road; thence South 39 26' 40" East along the West  
18 right of way line of the Fremont Logging Road - 3095.16 feet; thence  
19 South 1 53' 14" East - 617.32 feet to the South line of Section 4; thence  
20 continuing in Section 9 - South 00 13' 8" West parallel to the North South  
21 centerline of Section 9 - 2649.14 feet to the East West centerline of  
22 Section 9; thence South 89 45' 31" West along the East West centerline of  
23 Section 9 - 3782.55 feet more or less to the West line of Section 9; thence  
24 West along the East West centerline of Section 8 - 1320.00 feet more or  
25 less to the center East 1/16 corner of Section 8; thence North 2640.00 feet  
26 more or less to the East 1/16 corner common to Sections 5 and 8; thence  
27 North 1 41' 33" West - 2630.48 feet more or less to the center East 1/16

New language is in bold and underlined: **example**  
All italicized text in brackets [*example*] is proposed to be removed  
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1 corner of Section 5; thence North 1 40' 45" West - 410.32 feet, thence  
2 South 59 54' 45" East - 1307.02 feet more or less to the point of  
3 beginning.

4 (B) Any new, altered, deepened or converted well in the sedimentary units  
5 (clay, sand, silt, gravel) in the Lakeview Area shall be cased and sealed  
6 according to OAR 690, Division 210 with the following additional  
7 requirements:

8 (a) Unperforated casing and seal shall extend from land surface to a depth  
9 of 250 feet below land surface; and

10 (b) Perforated casing may extend below the seal.

11 (C) Liner installed in any new, altered, deepened or converted well in the  
12 sedimentary units (clay, sand, silt, gravel) in the Lakeview Area shall not  
13 extend more than 10 feet above the bottom of the unperforated casing.

14 (D) Alternatives to the special area standards shall be approved only if it  
15 can be demonstrated that the alternative techniques proposed to be used  
16 are as effective as the techniques required in subsection (1)(B) and (1)(C)  
17 above. Such alternatives require prior written approval by the Department  
18 and follow-up testing as may be required by the Department.

19 (E) Except as they may conflict with subsection (1) (B) and (1)(C), all  
20 other provisions of Oregon Administrative Rules for Well Construction  
21 and Maintenance Standards apply.

22 (F) This rule is applicable to wells for which construction, alteration,  
23 deepening or conversion began on or after April 1, 2004.

New language is in bold and underlined: **example**  
All italicized text in brackets [*example*] is proposed to be removed  
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1 (G) This special area standard may be revised at a future date when  
2 additional information and analysis is provided from other agencies  
3 including the Oregon Department of Environmental Quality.

4 Stat. Auth.: ORS 537.780, 536.027, 536.090

5 Stats. Implemented: ORS 537.505 - 537.795, 537.780(1)

6 Hist.: WRD 2-2004, f. & cert. ef. 4-1-04

7 **2) Special Area Standards for the Construction, Conversion and**  
8 **Maintenance of Water Supply Wells for the "Petes Mountain Area",**  
9 **Clackamas County.**

10 **(A) As used in this rule and illustrated in Figure 200-4, "The Petes Mountain**  
11 **Area" includes the area located in Sections 28, 29, 32, 33 and 34 Township 2**  
12 **South, Range 1 East, Willamette Meridian; and Sections 2, 3, 4, 5, 9,10, 11,**  
13 **15 and 16, Township 3 South, Range 1 East, Willamette Meridian.**  
14 **Beginning at the intersection of SW Ek Road and SW Stafford Road (T.2 S.,**  
15 **R.1 E., Sec. 29); thence southerly along SW Stafford Road to SW Mountain**  
16 **Road; thence southerly along SW Mountain Road to SW Hoffman Road;**  
17 **thence easterly along SW Hoffman Road to the intersection of SW Hoffman**  
18 **Road, SW Petes Mountain Road and SW Riverwood Drive; thence due east**  
19 **to the Willamette River; thence northerly along the Willamette River to the**  
20 **mouth of the Tualatin River; thence northwesterly along the Tualatin River**  
21 **to SW Borland Road (a.k.a. Willamette Falls Drive); thence northwesterly**  
22 **along SW Borland Road to SW Ek Road ; thence westerly along SW Ek**  
23 **Road to SW Stafford Road, to the point of beginning.**

24 **(B) All new, altered, deepened or converted wells constructed in the**  
25 **Petes Mountain Area shall be cased and sealed in accordance with**  
26 **OAR 690, Division 210 with the following additional requirements:**

New language is in bold and underlined: **example**

All italicized text in brackets [example] is proposed to be removed

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1 (a) All new wells shall have a nominal minimum well casing diameter  
2 of at least 6 inches.

3 (b) All wells shall have a minimum ¾-inch diameter dedicated  
4 measuring tube installed at the time of pump installation, pump  
5 repair or pump replacement (See Figure 200-5 and OAR 690-215-  
6 0200).

7 (C) Alternatives to the special area standards shall be approved only  
8 if it can be demonstrated that the alternative techniques proposed to  
9 be used are as effective as the techniques required in subsection (2)(B)  
10 above. Such alternatives require prior written approval by the  
11 Department. In addition, follow-up testing may be required by the  
12 Department to insure the effectiveness of the alternative technique.

13 (D) Except as they may conflict with subsection (2)(B), all other  
14 provisions of Oregon Administrative Rules for Well Construction and  
15 Maintenance Standards apply.

16 (E) This rule is applicable to wells for which pump installation, repair  
17 or replacement began on or after July 1, 2008.

18 (F) This special area standard may be revised at a future date when  
19 additional information and analysis is provided from other agencies  
20 including the Oregon Department of Environmental Quality.

21 3) Special Area Standards for the Construction, Conversion and  
22 Maintenance of Water Supply Wells for the "Eola Hills Ground Water  
23 Limited Area," Polk and Yamhill Counties.

24 (A) As used in this rule and illustrated in Figure 200-7, "The Eola Hills  
25 Ground Water Limited Area" includes all or portions of Sections 4 through

New language is in bold and underlined: **example**

All italicized text in brackets [example] is proposed to be removed

February 1, 2008 Hearing Draft

1 9, 16 through 21, and 29 through 32, Township 6 South, Range 3 West,  
2 Willamette Meridian; Sections 3 through 10, 15 through 22, 28, 29 and 30,  
3 Township 7 South, Range 3 West, Willamette Meridian; Sections 1 through  
4 5, 8 through 17, 20 through 29, and 32 through 36, Township 6 South, Range  
5 4 West, Willamette Meridian; and Sections 1 through 30, Township 7 South,  
6 Range 4 West, Willamette Meridian. The boundary of the Eola Hills area is  
7 as follows: Beginning at the intersection of the south line of Township 5  
8 South and U.S. Highway 99W, thence east along the township line to the  
9 Willamette River, thence southerly to Oregon State Highway 22, thence  
10 westerly to U.S. Highway 99W, thence northerly along Hwy 99W to the point  
11 of beginning.

12 (B) All new, altered, deepened or converted wells constructed in the Eola  
13 Hills Ground Water Limited Area shall be cased and sealed in accordance  
14 with OAR 690, Division 210 with the following additional requirements:

15 (a) All wells, in all aquifers, shall have a minimum 3/4-inch diameter  
16 dedicated measuring tube installed at the time of pump installation,  
17 pump repair or pump replacement (See Figure 200-5 and OAR 690-  
18 215-0200).

19 (b) All new and deepened wells developing water from basalt in the  
20 Eola Hills Ground Water Limited Area shall be limited to one aquifer  
21 and shall be continuously cased and sealed to within 100 feet of the  
22 bottom of the hole.

23 (C) Alternatives to the special area standards shall be approved only  
24 if it can be demonstrated that the alternative techniques proposed to  
25 be used are as effective as the techniques required in subsections  
26 (3)(B) above. Such alternatives require prior written approval by the  
27 Department. In addition, follow-up testing may be required by the  
28 Department to insure the effectiveness of the alternative technique.

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All italicized text in brackets [example] is proposed to be removed  
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1 (D) Except as they may conflict with subsection (3)(B), all other  
2 provisions of Oregon Administrative Rules for Well Construction and  
3 Maintenance Standards apply.

4 (E) This rule is applicable to wells for which pump installation, repair  
5 or replacement began on or after July 1, 2008.

6 690-200-0030

7 **Public Safety**

8 No water supply well shall be constructed, maintained, or abandoned in  
9 such a manner as to constitute a health threat, or health hazard or a menace  
10 to public safety.

11 Stat. Auth.: ORS 183, ORS 536, ORS 537 & ORS 540  
12 Stats. Implemented: ORS 183, ORS 536, ORS 537 & ORS 540  
13 Hist.: WRD 3, f. & ef. 2-18-77; WRD 9-1978, f. 12-12-78, ef. 1-1-79,  
14 Renumbered from 690-060-0010 by WRD 13-1986, f. 10-7-86, ef. 11-1-  
15 86; WRD 21-1990, f. & cert. ef. 12-14-90; WRD 7-2001, f. & cert. ef. 11-  
16 15-01

17 690-200-0040

18 **Wells Cannot be Used for Disposal of Contaminants**

19 No water supply well shall be used as a disposal pit for sewage, industrial  
20 waste, or other materials that could contaminate the ground water supply.

21 Stat. Auth.: ORS 183, ORS 536, ORS 537 & ORS 540  
22 Stats. Implemented: ORS 183, ORS 536, ORS 537 & ORS 540  
23 Hist.: WRD 9-1978, f. 12-12-78, ef. 1-1-79; Renumbered from 690-062-

New language is in bold and underlined: **example**  
All italicized text in brackets [example] is proposed to be removed  
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1 Stat. Auth.: ORS 183, ORS 536, ORS 537 & ORS 540

2 Stats. Implemented: ORS 183, ORS 536, ORS 537 & ORS 540

3 Hist.: WRD 7-2001, f. & cert. ef. 11-15-01

4 **690-200-0050**

5 **Definitions**

6 The Water Resources Commission uses the definitions of the words listed  
7 below in the administration and enforcement of Oregon's Ground Water  
8 Law and the Rules and Regulations for the Construction and Alteration of  
9 Wells. No other definitions of these same words apply:

10 (1) "Abandonment, Permanent" means to remove a well from service by  
11 completely filling it in such a manner that vertical movement of water  
12 within the well bore and within the annular space surrounding the well  
13 casing, is effectively and permanently prevented. If a portion of a well is  
14 to be abandoned in order to prevent commingling, waste, or loss of  
15 artesian pressure, the abandonment shall conform with the requirements of  
16 OAR chapter 690, division 220 for water supply wells. This term is  
17 synonymous with "decommission."

18 (2) "Abandonment, Temporary" means to remove a drilling machine from  
19 a well site after completing or altering a well provided the well is not  
20 immediately put into service, or to remove a well from service with the  
21 intent of using it in the future.

22 (3) "Access Port" means a minimum 1/2-inch tapped hole and plug, a 1/2-  
23 inch capped pipe welded onto the casing in the upper portion of a water  
24 supply well, **or a dedicated measuring tube** to permit unobstructed entry  
25 to determine the water level in the well at any time.,

New language is in bold and underlined: **example**

All italicized text in brackets [*example*] is proposed to be removed

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1 690-210-0280

2 Access Ports, Dedicated Measuring Tubes and Airlines

3 All water supply wells shall be equipped with a usable access port with a minimum diameter of  
4 1/2 inch for the purpose of determining the water level in the well at anytime. Dedicated  
5 measuring tubes are recommended to be installed on all wells at the time of pump  
6 installation. Where required, dedicated measuring tubes shall be a minimum of 3/4 inch  
7 schedule 40 PVC extending to the top of the pump (See Dedicated Measuring Tube  
8 Diagram and Specifications in Figure 200-5). An airline is not a substitute for a required  
9 dedicated measuring tube and, if installed, must enter the well in a location other than the  
10 access port. [*Unless it is located inside the well casing, the*] A[*a*]ccess ports, dedicated  
11 measuring tubes or airlines shall be capped and be a minimum of twelve inches above finished  
12 ground surface or pumphouse floor[. *If the well constructor does not install a pump in the well,*  
13 *the landowner will be required to provide the access port.*] (See Figure 210-12[. ]) (See Figure  
14 200-5). The access port, [*or*]airline and dedicated measuring tube on all water supply wells  
15 required by OAR 690-210-0280 shall be maintained in a condition that will prevent  
16 contamination of the ground water, and shall remain unobstructed and be maintained by the  
17 landowner so that the water level can be determined at any time.

18 [ED. NOTE: Figures referenced are available from the agency.]

19

20 Stat. Auth.: ORS 536.090 & ORS 537.505 - ORS 537.795

21 Stats. Implemented.

New language is in bold and underlined: **Example**

All italicized text in brackets [*example*] is proposed to be removed

**February 1, 2008 Hearing Draft**

1 well identification label placement instructions.

2 [ED. NOTE: Appendix referenced in this rule is available from the agency.]

3

4 Stat. Auth.: ORS 536.090 & ORS 537.505 - ORS 537.795

5 Stats. Implemented: ORS 536.090 & ORS 537.505 - ORS 537.795

6 Hist.: WRD 7-2001, f. & cert. ef. 11-15-01

7

8 **690-215-0060**

9 **Access Ports, Dedicated Measuring Tubes or Airlines**

10 All water supply wells shall be equipped with an unobstructed access port with a minimum  
11 diameter of 1/2 inch for the purpose of determining the water level in the well at any time  
12 **dedicated measuring tubes are recommended to be installed on all wells at the time of**  
13 **pump installation. Where required, dedicated measuring tubes shall be a minimum of 3/4**  
14 **inch diameter schedule 40 PVC and shall extend to the top of the pump. The dedicated**  
15 **measuring tube shall be vented above and below the well cap and shall be attached to the**  
16 **pump column at 10 foot intervals with 10 mil plastic tape. The lower five feet of the**  
17 **dedicated measuring tube shall be either 0.020 inch machine slotted well screen or the**  
18 **lower 20 feet of the dedicated measuring tube shall be extensively perforated with 1/8 inch**  
19 **holes. The dedicated measuring tube shall be plugged or capped at the bottom (Figure 200-**  
20 **5). The dedicated measuring tube shall not be reduced in size over the length of the pipe**  
21 **and shall remain free from wire or other obstruction. An airline is not a substitute for a**

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1 required dedicated measuring tube and, if installed, must enter the well in a location other  
2 than the access port. Access ports, dedicated measuring tubes or airlines [*Unless it located*  
3 *inside the well casing, access ports or airlines*] shall be capped and a minimum of twelve inches  
4 above finished ground surface or pumphouse floor. If the well has a pitless adaptor then the  
5 dedicated measuring tube shall terminate within six inches of the top of the well casing. [*If*  
6 *an airline is installed and cannot be used as an access port, it must enter the well in a location*  
7 *other than the access port.*] The access port, [*or*]airline and dedicated measuring tube on all  
8 water supply wells required by OAR 690-210-0280 shall be maintained in a condition that will  
9 prevent contamination of the ground water, and shall remain unobstructed and be maintained by  
10 the landowner so that the water level can be determined at any time.

11

12 Stat. Auth.: ORS 183, ORS 536, ORS 537 &amp; ORS 540

13 Stats. Implemented:

14 Hist.: WRD 3, f. &amp; ef. 2-18-77, WRD 9-1978, f. 12-12-78, ef. 1-1-79, WRD 13-1986, f. 10-7-86, ef. 11-1-86,

15 Renumbered from 690-062-0015; WRD 7-2001, f. &amp; cert. ef. 11-15-01

16

17 **690-215-0070**18 **Pressure Gauge**

19 The pressure gauge and petcock valve required by OAR 690-210-0155 shall be maintained so  
20 that the artesian pressure can be accurately determined at any time[.] (See Figure 210-7[.]).

21 [ED. NOTE: Figures referenced in this rule are available from the agency.]

New language is in bold and underlined: **Example**

All italicized text in brackets [*example*] is proposed to be removed

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2 Stat. Auth.: ORS 183, ORS 536, ORS 537 & ORS 540

3 Stats. Implemented:

4 Hist.: WRD 3, f. & ef. 2-18-77, WRD 9-1978, f. 12-12-78, ef. 1-1-79, WRD 13-1986, f. 10-7-86, ef. 11-1-86,

5 Renumbered from 690-062-0020, WRD 7-2001, f. & cert. ef. 11-15-01

6

7 **690-215-0080**

8 **Flowmeters and Dedicated Measuring Tubes**

9 The Director may require the landowner to install totalizing flowmeters **or dedicated measuring**  
10 **tubes** on any water supply well, either as a condition of a water right permit or at a later date as  
11 circumstances may warrant. The landowner may be required to install totalizing flowmeters **or**  
12 **dedicated measuring tubes** on existing permitted wells and on wells which are exempted by  
13 ORS 537.545.

14

15 Stat. Auth.: ORS 183, ORS 536, ORS 537 & ORS 540

16 Stats. Implemented:

17 Hist.: WRD 13-1986, f. 10-7-86, ef. 11-1-86; WRD 7-2001, f. & cert. ef. 11-15-01

18

19 **690-215-0090**

20 **Conversion to an Artesian Well**

21 If a water supply well becomes artesian upon deepening, the well shall be cased, sealed and  
22 completed in accordance with OAR 690-210-0155.

New language is in bold and underlined: **Example**

All italicized text in brackets [*example*] is proposed to be removed

**February 1, 2008 Hearing Draft**

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Stat. Auth.: ORS 183, ORS 536, ORS 537 & ORS 540

Stats. Implemented:

Hist.: WRD 9-1978, f. 12-12-78, ef. 1-1-79; WRD 13-1986, f. 10-7-86, ef. 11-1-86, Renumbered from 690-061-0236, WRD 7-2001, f. & cert. ef. 11-15-01

**690-215-0100**

**Drilling in a Dug Well**

In no case shall a dug well be deepened by drilling methods.

Stat. Auth.: ORS 183, ORS 536, ORS 537 & ORS 540

Stats. Implemented:

Hist.: WRD 9-1978, f. 12-12-78, ef. 1-1-79, WRD 13-1986, f. 10-7-86, ef. 11-1-86, Renumbered from 690-061-0241

**690-215-0200**

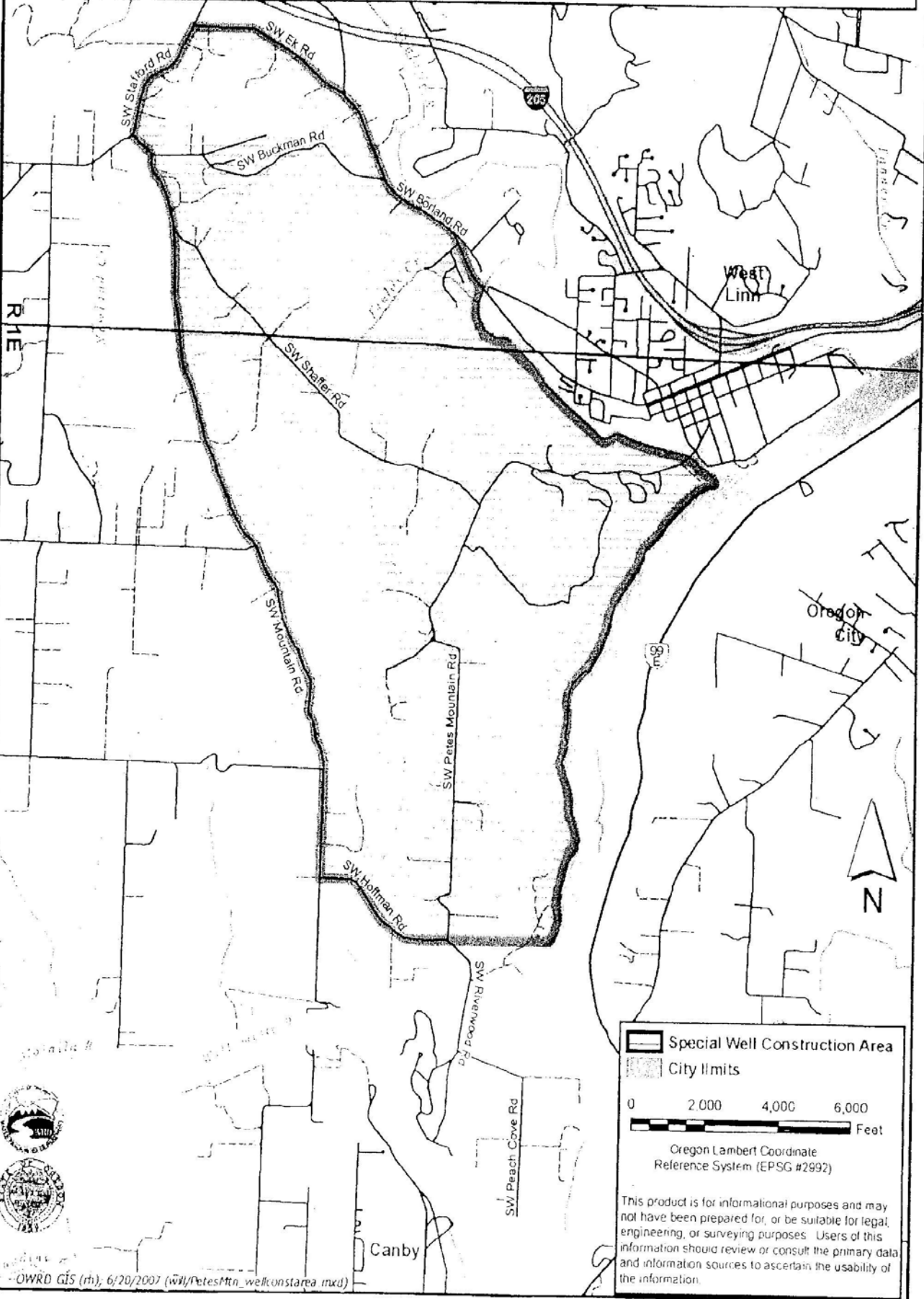
**Dedicated Measuring Tube**

**A dedicated measuring tube as described in 690-215-0060 shall be installed in any water supply well at the time of pump installation, pump repair or pump replacement in the following areas (See Figures 200-4, 200-5 and 200-7):**

- 1. **Pete's Mountain Area of Clackamas County (See OAR 690-200-0028(2)).**
- 2. **Eola Hills Ground Water Limited Area of Polk and Yamhill Counties (See OAR 690-200-0028(3)).**

# Special Area Standards: Petes Mountain Area

T2S  
T3S



**Special Well Construction Area**

**City Limits**

0 2,000 4,000 6,000  
Feet

Oregon Lambert Coordinate Reference System (EPSG #2992)

This product is for informational purposes and may not have been prepared for, or be suitable for legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information.

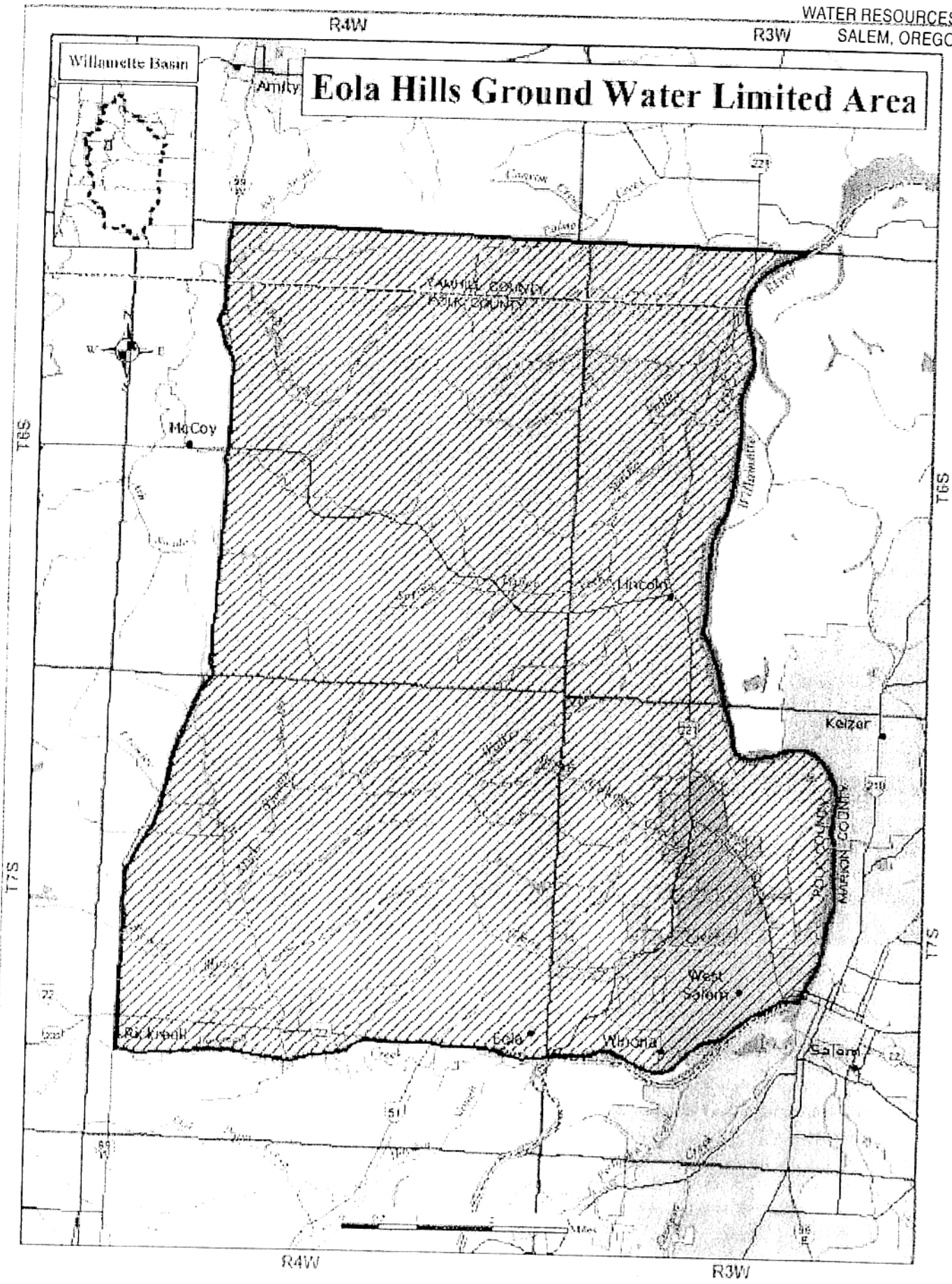




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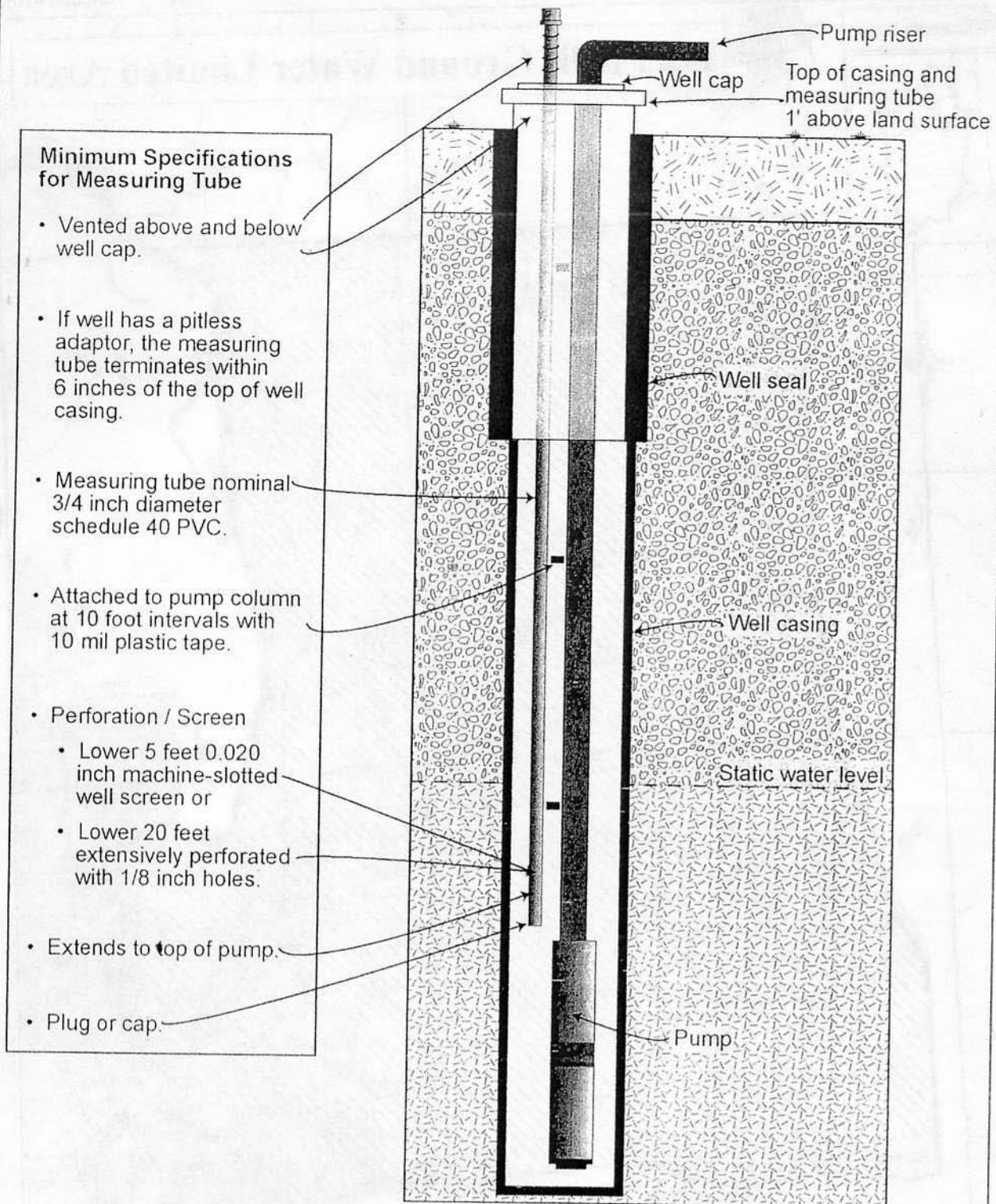
Special Area Standards  
OAR 690-200-0028

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# Measuring Tube Diagram and Specifications

Figure 200-5



*This diagram details the recommended minimum standards for a dedicated measuring tube. A measuring tube may be constructed in a manner that exceeds these standards without prior Department approval. The dedicated measuring tube shall not be reduced in size over the length of the pipe and shall remain free from wires or any other obstruction.*

TO: Water Resources Department

Date: March 7, 2008

725 Summer Street NE, Suite A

Salem, OR 97301-1271

ATTN: Rule Coordinator

Fax: 503-986-0903

e-mail: [rule-coordinator@ wrd.state.or.us](mailto:rule-coordinator@ wrd.state.or.us)

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WATER RESOURCES DEPT  
SALEM, OREGON

FROM:

Jeff Haboush

(name)

17045 NW Hwy 47

(mailing address)

Banks Oregon 97106

(city, state, zip)

Please find my comments herein related to the proposed rules establishing special area standards for well construction and maintenance in the Eola Hills Ground Water Limited Area of Polk and Yamhill Counties and in the Petes Mountain Area in Clackamas County.

Some of these rules raise more questions than they answer. There is a lot of vagueness in some of these rules. Trying to get a measuring tube + pump in a liner could be next to impossible, wells seals would have to be customized to work with the tube, etc. It seems some government employees are more concerned with justifying their jobs by coming up with unnecessary rules than by enforcing the rules already on the books

Signature:

Jeff Haboush

(Note: Letters or other materials expressing your opinion need not be typed, but should be legible.)

1 [ED. NOTE: Tables and Figures referenced are available from the  
2 agency.]

3 Stat. Auth : ORS 536.027, ORS 536.090 & ORS 537.505 - ORS 537.795

4 Stats. Implemented ORS 536.090 & ORS 537.505 - ORS 537.795

5 Hist.: WRD 7-1988, f. & cert. ef. 6-29-88; WRD 8-1993, f. 12-14-93, cert.

6 ef. 1-1-94; WRD 7-2001, f. & cert. ef. 11-15-01

7 **690-200-0028**

8 **Designated Special Area Standards**

9 (1) Special Area Standards for the Construction and Alteration of Water  
10 Supply Wells in the Lakeview Area.

11 (A) As used in this rule and illustrated in Figure 200-3, "The Lakeview  
12 Area" includes the area located in Sections 4, 5, 8 and 9 of Township 39  
13 South, Range 20 East of the Willamette Meridian, Lake County, Oregon.  
14 Beginning at a point on the West line of Section 4, said point bears South  
15 1 40' 45" East - 2245.31 feet from the Northwest Corner of Section 4;  
16 thence South 89 54' 45" East- 1907.04 feet to the West right of way line of  
17 the Fremont Logging Road; thence South 39 26' 40" East along the West  
18 right of way line of the Fremont Logging Road - 3095.16 feet; thence  
19 South 1 53' 14" East - 617.32 feet to the South line of Section 4; thence  
20 continuing in Section 9 - South 00 13' 8" West parallel to the North South  
21 centerline of Section 9 - 2649.14 feet to the East West centerline of  
22 Section 9; thence South 89 45' 31" West along the East West centerline of  
23 Section 9 - 3782.55 feet more or less to the West line of Section 9; thence  
24 West along the East West centerline of Section 8 - 1320.00 feet more or  
25 less to the center East 1/16 corner of Section 8; thence North 2640.00 feet  
26 more or less to the East 1/16 corner common to Sections 5 and 8; thence  
27 North 1 41' 33" West - 2630.48 feet more or less to the center East 1/16

New language is in bold and underlined: **example**

All italicized text in brackets [*example*] is proposed to be removed

**February 1, 2008 Hearing Draft**

TO: Water Resources Department  
725 Summer Street NE, Suite A  
Salem, OR 97301-1271  
ATTN: Rule Coordinator  
Fax: 503-986-0903  
e-mail: [rule-coordinator@wrd.state.or.us](mailto:rule-coordinator@wrd.state.or.us)

Date: March <sup>2008</sup> **RECEIVED**

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WATER RESOURCES DEPT  
SALEM, OREGON

FROM: Jim Meek Sr  
(name)  
47530 Hwy 101  
(mailing address)  
Bandon, OR. 97411  
(city, state, zip)

Please find my comments herein related to the proposed rules establishing special area standards for well construction and maintenance in the Eola Hills Ground Water Limited Area of Polk and Yamhill Counties and in the Petes Mountain Area in Clackamas County.

I believe the vent should be changed on the surface  
so contamination can not enter the well.

I believe we are having a double standard. No co  
mingling is the law.

There should be 2 diagrams for vent pipe (Access tube)  
one for a well with a well seal, one for a pitless installation

The terminology on the diagram should be defined  
properly

See Attached Sheets for more notes

Signature: Jim Meek Sr.

(Note: Letters or other materials expressing your opinion need not be typed, but should be legible.)



1 [ED. NOTE: Tables and Figures referenced are available from the  
2 agency.]

3 Stat. Auth.: ORS 536.027, ORS 536.090 & ORS 537.505 - ORS 537.795  
4 Stats. Implemented: ORS 536.090 & ORS 537.505 - ORS 537.795  
5 Hist.: WRD 7-1988, f. & cert. ef. 6-29-88; WRD 8-1993, f. 12-14-93, cert.  
6 ef. 1-1-94; WRD 7-2001, f. & cert. ef. 11-15-01

7 **690-200-0028**

8 **Designated Special Area Standards**

9 (1) Special Area Standards for the Construction and Alteration of Water  
10 Supply Wells in the Lakeview Area.

11 (A) As used in this rule and illustrated in Figure 200-3, "The Lakeview  
12 Area" includes the area located in Sections 4, 5, 8 and 9 of Township 39  
13 South, Range 20 East of the Willamette Meridian, Lake County, Oregon.  
14 Beginning at a point on the West line of Section 4, said point bears South  
15 1 40' 45" East - 2245.31 feet from the Northwest Corner of Section 4;  
16 thence South 89 54' 45" East- 1907.04 feet to the West right of way line of  
17 the Fremont Logging Road; thence South 39 26' 40" East along the West  
18 right of way line of the Fremont Logging Road - 3095.16 feet; thence  
19 South 1 53' 14" East - 617.32 feet to the South line of Section 4; thence  
20 continuing in Section 9 - South 00 13' 8" West parallel to the North South  
21 centerline of Section 9 - 2649.14 feet to the East West centerline of  
22 Section 9; thence South 89 45' 31" West along the East West centerline of  
23 Section 9 - 3782.55 feet more or less to the West line of Section 9; thence  
24 West along the East West centerline of Section 8 - 1320.00 feet more or  
25 less to the center East 1/16 corner of Section 8; thence North 2640.00 feet  
26 more or less to the East 1/16 corner common to Sections 5 and 8; thence  
27 North 1 41' 33" West - 2630.48 feet more or less to the center East 1/16

New language is in bold and underlined: **example**

All italicized text in brackets [*example*] is proposed to be removed

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SALEM, OREGON

1 corner of Section 5; thence North 1 40' 45" West - 410.32 feet; thence  
2 South 59 54' 45" East - 1307.02 feet more or less to the point of  
3 beginning.

4 (B) Any new, altered, deepened or converted well in the sedimentary units  
5 (clay, sand, silt, gravel) in the Lakeview Area shall be cased and sealed  
6 according to OAR 690, Division 210 with the following additional  
7 requirements:

8 (a) Unperforated casing and seal shall extend from land surface to a depth  
9 of 250 feet below land surface; and

10 (b) Perforated casing may extend below the seal.

11 (C) Liner installed in any new, altered, deepened or converted well in the  
12 sedimentary units (clay, sand, silt, gravel) in the Lakeview Area shall not  
13 extend more than 10 feet above the bottom of the unperforated casing.

14 (D) Alternatives to the special area standards shall be approved only if it  
15 can be demonstrated that the alternative techniques proposed to be used  
16 are as effective as the techniques required in subsection (1)(B) and (1)(C)  
17 above. Such alternatives require prior written approval by the Department  
18 and follow-up testing as may be required by the Department.

19 (E) Except as they may conflict with subsection (1) (B) and (1)(C), all  
20 other provisions of Oregon Administrative Rules for Well Construction  
21 and Maintenance Standards apply.

22 (F) This rule is applicable to wells for which construction, alteration,  
23 deepening or conversion began on or after April 1, 2004.

New language is in bold and underlined: example  
All italicized text in brackets [example] is proposed to be removed  
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1 (G) This special area standard may be revised at a future date when  
2 additional information and analysis is provided from other agencies  
3 including the Oregon Department of Environmental Quality.

4 Stat. Auth.: ORS 537.780, 536.027, 536.090

5 Stats. Implemented: ORS 537.505 - 537.795, 537.780(1)

6 Hist.: WRD 2-2004, f. & cert. ef. 4-1-04

7 2) Special Area Standards for the Construction, Conversion and  
8 Maintenance of Water Supply Wells for the "Petes Mountain Area",  
9 Clackamas County.

10 (A) As used in this rule and illustrated in Figure 200-4, "The Petes Mountain  
11 Area" includes the area located in Sections 28, 29, 32, 33 and 34 Township 2  
12 South, Range 1 East, Willamette Meridian; and Sections 2, 3, 4, 5, 9, 10, 11,  
13 15 and 16, Township 3 South, Range 1 East, Willamette Meridian.  
14 Beginning at the intersection of SW Ek Road and SW Stafford Road (T.2 S.,  
15 R.1 E., Sec. 29); thence southerly along SW Stafford Road to SW Mountain  
16 Road; thence southerly along SW Mountain Road to SW Hoffman Road;  
17 thence easterly along SW Hoffman Road to the intersection of SW Hoffman  
18 Road, SW Petes Mountain Road and SW Riverwood Drive; thence due east  
19 to the Willamette River; thence northerly along the Willamette River to the  
20 mouth of the Tualatin River; thence northwesterly along the Tualatin River  
21 to SW Borland Road (a.k.a. Willamette Falls Drive); thence northwesterly  
22 along SW Borland Road to SW Ek Road ; thence westerly along SW Ek  
23 Road to SW Stafford Road, to the point of beginning.

24 ~~(B) All new, altered, deepened or converted wells constructed in the~~  
25 ~~Petes Mountain Area shall be eased and sealed in accordance with~~  
26 ~~OAR 690, Division 210 with the following additional requirements:~~

*Delete*

New language is in bold and underlined: example  
All italicized text in brackets [example] is proposed to be removed  
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1 (a) All new wells shall have a nominal minimum well casing diameter  
2 of at least 6 inches.

3 (b) All wells shall have a minimum 3/4-inch diameter dedicated  
4 measuring tube installed at the time of pump installation, pump  
5 repair or pump replacement (See Figure 200-5 and OAR 690-215-  
6 0200).

7 (C) Alternatives to the special area standards shall be approved only  
8 if it can be demonstrated that the alternative techniques proposed to  
9 be used are as effective as the techniques required in subsection (2)(B)  
10 above. Such alternatives require prior written approval by the  
11 Department. In addition, follow-up testing may be required by the  
12 Department to insure the effectiveness of the alternative technique.

13 (D) Except as they may conflict with subsection (2)(B), all other  
14 provisions of Oregon Administrative Rules for Well Construction and  
15 Maintenance Standards apply.

16 (E) This rule is applicable to wells for which pump installation, repair  
17 or replacement began on or after July 1, 2008.

18 (F) This special area standard may be revised at a future date when  
19 additional information and analysis is provided from other agencies  
20 including the Oregon Department of Environmental Quality.

21 3) Special Area Standards for the Construction, Conversion and  
22 Maintenance of Water Supply Wells for the "Eola Hills Ground Water  
23 Limited Area," Polk and Yamhill Counties.

24 (A) As used in this rule and illustrated in Figure 200-7, "The Eola Hills  
25 Ground Water Limited Area" includes all or portions of Sections 4 through

New language is in bold and underlined: **example**

All italicized text in brackets [example] is proposed to be removed

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1 9, 16 through 21, and 29 through 32, Township 6 South, Range 3 West,  
2 Willamette Meridian; Sections 3 through 10, 15 through 22, 28, 29 and 30,  
3 Township 7 South, Range 3 West, Willamette Meridian; Sections 1 through  
4 5, 8 through 17, 20 through 29, and 32 through 36, Township 6 South, Range  
5 4 West, Willamette Meridian; and Sections 1 through 30, Township 7 South,  
6 Range 4 West, Willamette Meridian. The boundary of the Eola Hills area is  
7 as follows: Beginning at the intersection of the south line of Township 5  
8 South and U.S. Highway 99W, thence east along the township line to the  
9 Willamette River, thence southerly to Oregon State Highway 22, thence  
10 westerly to U.S. Highway 99W, thence northerly along Hwy 99W to the point  
11 of beginning.

12 (B) All new, altered, deepened or converted wells constructed in the Eola  
13 Hills Ground Water Limited Area shall be cased and sealed in accordance  
14 with OAR 690, Division 210 with the following additional requirements:

15 (a) All wells, in all aquifers, shall have a minimum 3/4-inch diameter  
16 dedicated measuring tube installed at the time of pump installation,  
17 pump repair or pump replacement (See Figure 200-5 and OAR 690-  
18 215-0200).

19 (b) All new and deepened wells developing water from basalt in the  
20 Eola Hills Ground Water Limited Area shall be limited to one aquifer  
21 and shall be continuously cased and sealed to within 100 feet of the  
22 bottom of the hole.

*omit already in rules*

*not the case if water source is through perforations in middle of casing string*

23 (C) Alternatives to the special area standards shall be approved only  
24 if it can be demonstrated that the alternative techniques proposed to  
25 be used are as effective as the techniques required in subsections

26 (3)(B) above. Such alternatives require prior written approval by the  
27 Department. In addition, follow-up testing may be required by the  
28 Department to insure the effectiveness of the alternative technique.

New language is in bold and underlined: example

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omit {

1 (D) Except as they may conflict with subsection (3)(B), all other  
2 provisions of Oregon Administrative Rules for Well Construction and  
3 Maintenance Standards apply.

4 (E) This rule is applicable to wells for which pump installation, repair  
5 or replacement began on or after July 1, 2008.

6 690-200-0030

7 **Public Safety**

8 No water supply well shall be constructed, maintained, or abandoned in  
9 such a manner as to constitute a health threat, or health hazard or a menace  
10 to public safety.

11 Stat. Auth.: ORS 183, ORS 536, ORS 537 & ORS 540  
12 Stats. Implemented: ORS 183, ORS 536, ORS 537 & ORS 540  
13 Hist.: WRD 3, f. & ef. 2-18-77; WRD 9-1978, f. 12-12-78, ef. 1-1-79,  
14 Renumbered from 690-060-0010 by WRD 13-1986, f. 10-7-86, ef. 11-1-  
15 86; WRD 21-1990, f. & cert. ef. 12-14-90; WRD 7-2001, f. & cert. ef. 11-  
16 15-01

17 690-200-0040

18 **Wells Cannot be Used for Disposal of Contaminants**

19 No water supply well shall be used as a disposal pit for sewage, industrial  
20 waste, or other materials that could contaminate the ground water supply.

21 Stat. Auth.: ORS 183, ORS 536, ORS 537 & ORS 540  
22 Stats. Implemented: ORS 183, ORS 536, ORS 537 & ORS 540  
23 Hist.: WRD 9-1978, f. 12-12-78, ef. 1-1-79; Renumbered from 690-062-

New language is in bold and underlined: **example**  
All italicized text in brackets [example] is proposed to be removed  
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1 Stat. Auth.: ORS 183, ORS 536, ORS 537 & ORS 540  
2 Stats. Implemented: ORS 183, ORS 536, ORS 537 & ORS 540  
3 Hist.: WRD 7-2001, f. & cert. ef. 11-15-01

4 690-200-0050

5 **Definitions**

6 The Water Resources Commission uses the definitions of the words listed  
7 below in the administration and enforcement of Oregon's Ground Water  
8 Law and the Rules and Regulations for the Construction and Alteration of  
9 Wells. No other definitions of these same words apply:

10 (1) "Abandonment, Permanent" means to remove a well from service by  
11 completely filling it in such a manner that vertical movement of water  
12 within the well bore and within the annular space surrounding the well  
13 casing, is effectively and permanently prevented. If a portion of a well is  
14 to be abandoned in order to prevent commingling, waste, or loss of  
15 artesian pressure, the abandonment shall conform with the requirements of  
16 OAR chapter 690, division 220 for water supply wells. This term is  
17 synonymous with "decommission."

18 (2) "Abandonment, Temporary" means to remove a drilling machine from  
19 a well site after completing or altering a well provided the well is not  
20 immediately put into service, or to remove a well from service with the  
21 intent of using it in the future.

22 (3) "Access Port" means a minimum 1/2-inch tapped hole and plug, a 1/2-  
23 inch capped pipe welded onto the casing in the upper portion of a water  
24 supply well, **or a dedicated measuring tube** to permit unobstructed entry  
25 to determine the water level in the well at any time.,

New language is in bold and underlined: **example**  
All italicized text in brackets [*example*] is proposed to be removed  
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1 690-210-0280

2 Access Ports, Dedicated Measuring Tubes and Airlines

3 All water supply wells shall be equipped with a usable access port with a minimum diameter of  
4 1/2 inch for the purpose of determining the water level in the well at anytime. Dedicated

5 measuring tubes are <sup>Required</sup> recommended to be installed on all wells at the time of pump *Ejoa Hills*  
*petes mt only*

6 installation. Where required, dedicated measuring tubes shall be a minimum of 3/4 inch

7 schedule 40 PVC extending to the top of the pump (See Dedicated Measuring Tube

8 Diagram and Specifications in Figure 200-5). An airline is not a substitute for a required

9 dedicated measuring tube and, if installed, must enter the well in a location other than the

10 access port. [*Unless it is located inside the well casing, the*] A[a]ccess ports, dedicated

11 measuring tubes or airlines shall be capped and be a minimum of twelve inches above finished

12 ground surface or pumphouse floor[. *If the well constructor does not install a pump in the well,*

13 *the landowner will be required to provide the access port*] (See Figure 210-12[.]) (See Figure

14 200-5). The access port, [*or*] airline and dedicated measuring tube on all water supply wells

15 required by OAR 690-210-0280 shall be maintained in a condition that will prevent

16 contamination of the ground water, and shall remain unobstructed and be maintained by the

17 landowner so that the water level can be determined at any time.

18 [ED. NOTE: Figures referenced are available from the agency.]

19

20 Stat. Auth. ORS 536.090 & ORS 537.505 - ORS 537.795

21 Stats. Implemented

New language is in bold and underlined: **Example**

All italicized text in brackets [*example*] is proposed to be removed

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1 well identification label placement instructions.

2 [ED. NOTE: Appendix referenced in this rule is available from the agency ]

4 Stat. Auth.: ORS 536.090 & ORS 537.505 - ORS 537.795

5 Stats. Implemented: ORS 536.090 & ORS 537.505 - ORS 537.795

6 Hist.: WRD 7-2001, f. & cert. ef. 11-15-01

8 690-215-0060

9 **Access Ports, Dedicated Measuring Tubes or Airlines**

10 All water supply wells shall be equipped with an unobstructed access port with a minimum  
11 diameter of 1/2 inch for the purpose of determining the water level in the well at any time

12 **dedicated measuring tubes are recommended to be installed on all wells at the time of**  
13 **pump installation. Where required, dedicated measuring tubes shall be a minimum of 3/4**

14 **inch diameter schedule 40 PVC and shall extend to the top of the pump. The dedicated**  
15 **measuring tube shall be vented above and below the well cap and shall be attached to the**

16 ~~**pump column at 10-foot intervals with 10 mil plastic tape. The lower five feet of the**~~

17 ~~**dedicated measuring tube shall be either 0.020 inch machine slotted well screen or the**~~

18 **lower 20 feet of the dedicated measuring tube shall be extensively perforated with 1/8 inch**  
19 **holes. The dedicated measuring tube shall be plugged or capped at the bottom (Figure 200-**

20 **5). The dedicated measuring tube shall not be reduced in size over the length of the pipe**

21 **and shall remain free from wire or other obstruction. An airline is not a substitute for a**

New language is in bold and underlined: **Example**  
All italicized text in brackets [example] is proposed to be removed  
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1 required dedicated measuring tube and, if installed, must enter the well in a location other  
 2 than the access port. Access ports, dedicated measuring tubes or airlines [*Unless it located*  
 3 *inside the well casing, access ports or airlines*] shall be capped and a minimum of twelve inches  
 4 above finished ground surface or pumphouse floor If the well has a pitless adaptor then the  
 5 dedicated measuring tube shall terminate within six inches of the top of the well casing. [*If*  
 6 *an airline is installed and cannot be used as an access port, it must enter the well in a location*  
 7 *other than the access port.*] The access port, [*or*] airline and dedicated measuring tube on all  
 8 water supply wells required by OAR 690-210-0280 shall be maintained in a condition that will  
 9 prevent contamination of the ground water, and shall remain unobstructed and be maintained by  
 10 the landowner so that the water level can be determined at any time.

————— Have diagram

11

12 Stat. Auth.: ORS 183, ORS 536, ORS 537 & ORS 540

13 Stats. Implemented:

14 Hist.: WRD 3, f. & ef. 2-18-77; WRD 9-1978, f. 12-12-78, ef. 1-1-79; WRD 13-1986, f. 10-7-86, ef. 11-1-86,

15 Renumbered from 690-062-0015; WRD 7-2001, f. & cert. ef. 11-15-01

16

17 **690-215-0070**

18 **Pressure Gauge**

19 The pressure gauge and petcock valve required by OAR 690-210-0155 shall be maintained so  
 20 that the artesian pressure can be accurately determined at any time[.] (See Figure 210-7[.]).

21 [ED. NOTE: Figures referenced in this rule are available from the agency.]

2 Stat. Auth.: ORS 183, ORS 536, ORS 537 & ORS 540

3 Stats. Implemented:

4 Hist.: WRD 3, f. & ef. 2-18-77, WRD 9-1978, f. 12-12-78, ef. 1-1-79, WRD 13-1986, f. 10-7-86, ef. 11-1-86,

5 Renumbered from 690-062-0020, WRD 7-2001, f. & cert. ef. 11-15-01

6

7 **690-215-0080**

8 **Flowmeters and Dedicated Measuring Tubes**

Delete This Section

9 (The Director may require the landowner to install totalizing flowmeters **or dedicated measuring**

10 **tubes** on any water supply well, either as a condition of a water right permit or at a later date as

11 circumstances may warrant. The landowner may be required to install totalizing flowmeters **or**

12 **dedicated measuring tubes** on existing permitted wells and on wells which are exempted by )

13 ORS 537.545.

14

15 Stat. Auth.: ORS 183, ORS 536, ORS 537 & ORS 540

16 Stats. Implemented:

17 Hist.: WRD 13-1986, f. 10-7-86, ef. 11-1-86, WRD 7-2001, f. & cert. ef. 11-15-01

18

19 **690-215-0090**

20 **Conversion to an Artesian Well**

21 If a water supply well becomes artesian upon deepening, the well shall be cased, sealed and

22 completed in accordance with OAR 690-210-0155.

New language is in bold and underlined: **Example**

All italicized text in brackets [example] is proposed to be removed

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1

2 Stat. Auth.: ORS 183, ORS 536, ORS 537 & ORS 540

3 Stats. Implemented

4 Hist.: WRD 9-1978, f. 12-12-78, ef. 1-1-79; WRD 13-1986, f. 10-7-86, ef. 11-1-86, Renumbered from 690-061-

5 0236; WRD 7-2001, f. & cert. ef. 11-15-01

6

7 **690-215-0100**

8 **Drilling in a Dug Well**

9 In no case shall a dug well be deepened by drilling methods

10

11 Stat. Auth.: ORS 183, ORS 536, ORS 537 & ORS 540

12 Stats. Implemented:

13 Hist.: WRD 9-1978, f. 12-12-78, ef. 1-1-79; WRD 13-1986, f. 10-7-86, ef. 11-1-86, Renumbered from 690-061-

14 0241

15

16 **690-215-0200**

17

18 **Dedicated Measuring Tube**

19

20 **A dedicated measuring tube as described in 690-215-0060 shall be installed in any water**  
21 **supply well at the time of pump installation, pump repair or pump replacement in the**  
22 **following areas (See Figures 200-4, 200-5 and 200-7):**

- 23 1. **Pete's Mountain Area of Clackamas County (See OAR 690-200-0028(2)).**  
24 2. **Eola Hills Ground Water Limited Area of Polk and Yamhill Counties (See**  
25 **OAR 690-200-0028(3)).**

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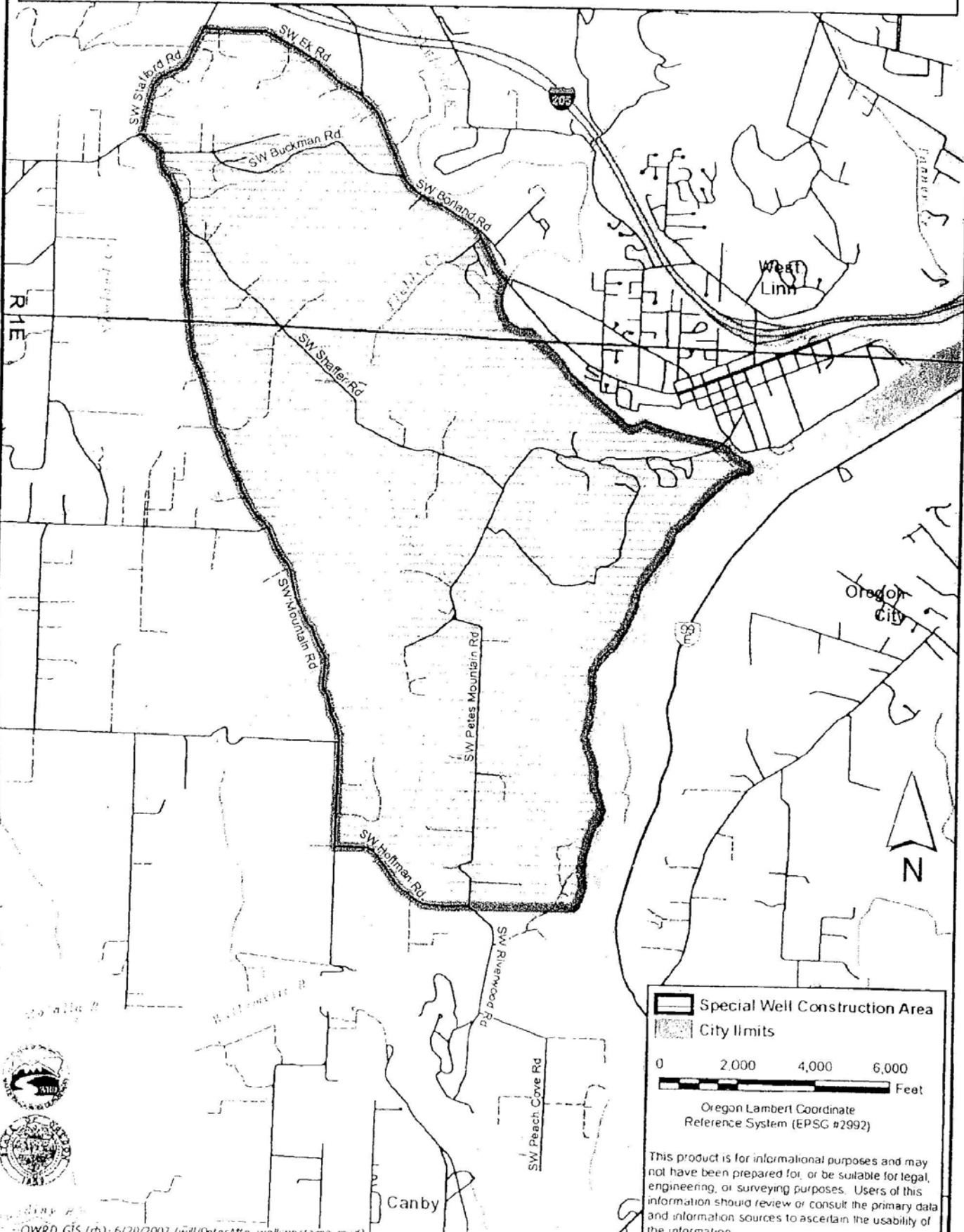
New language is in bold and underlined. **Example**

All italicized text in brackets [example] is proposed to be removed

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# Special Area Standards: Petes Mountain Area

T2S  
T3S



Special Well Construction Area  
 City Limits

0      2,000      4,000      6,000  

 Feet

Oregon Lambert Coordinate  
 Reference System (EPSG #2992)

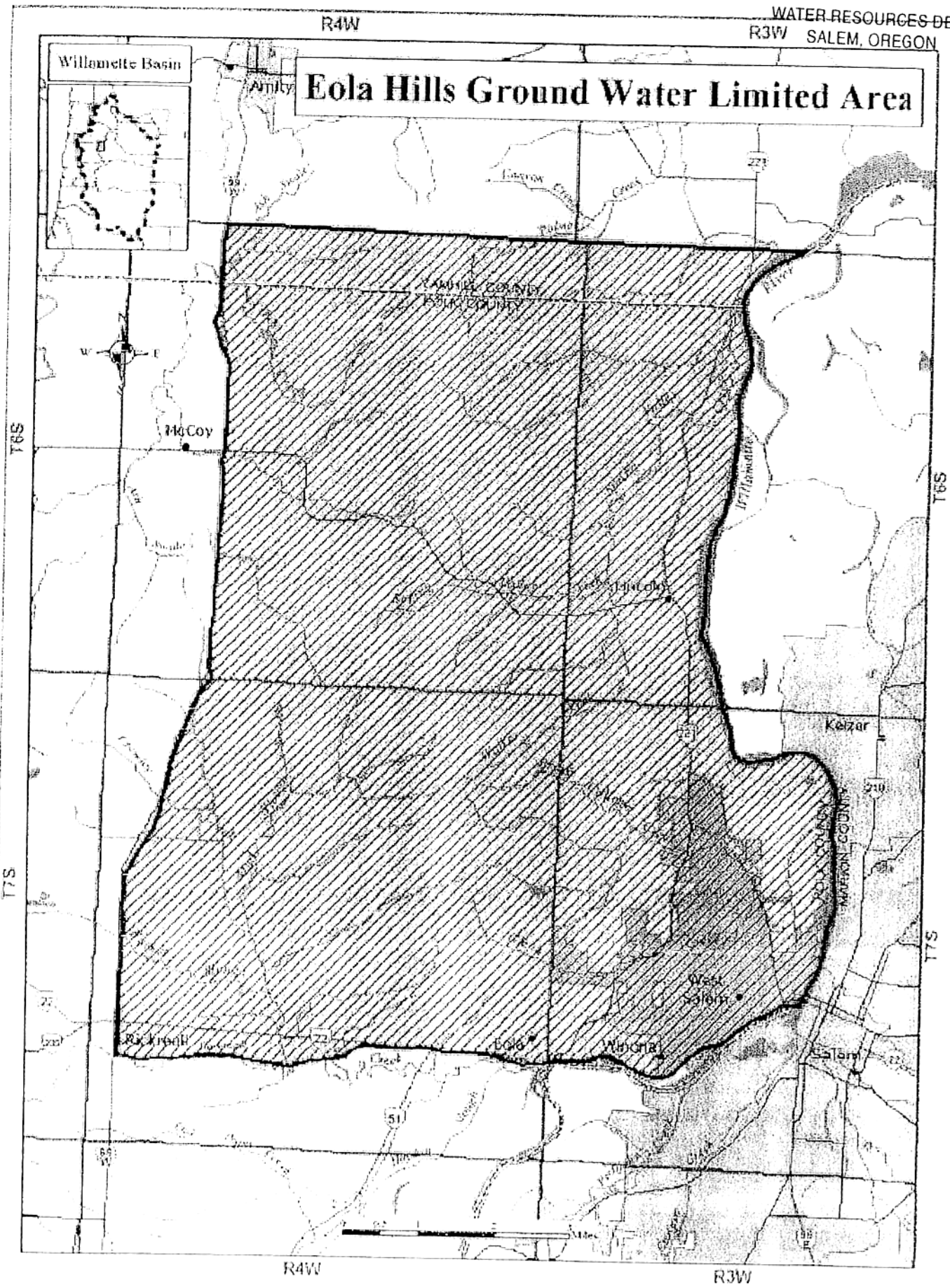
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Special Area Standards  
OAR 690-200-0028

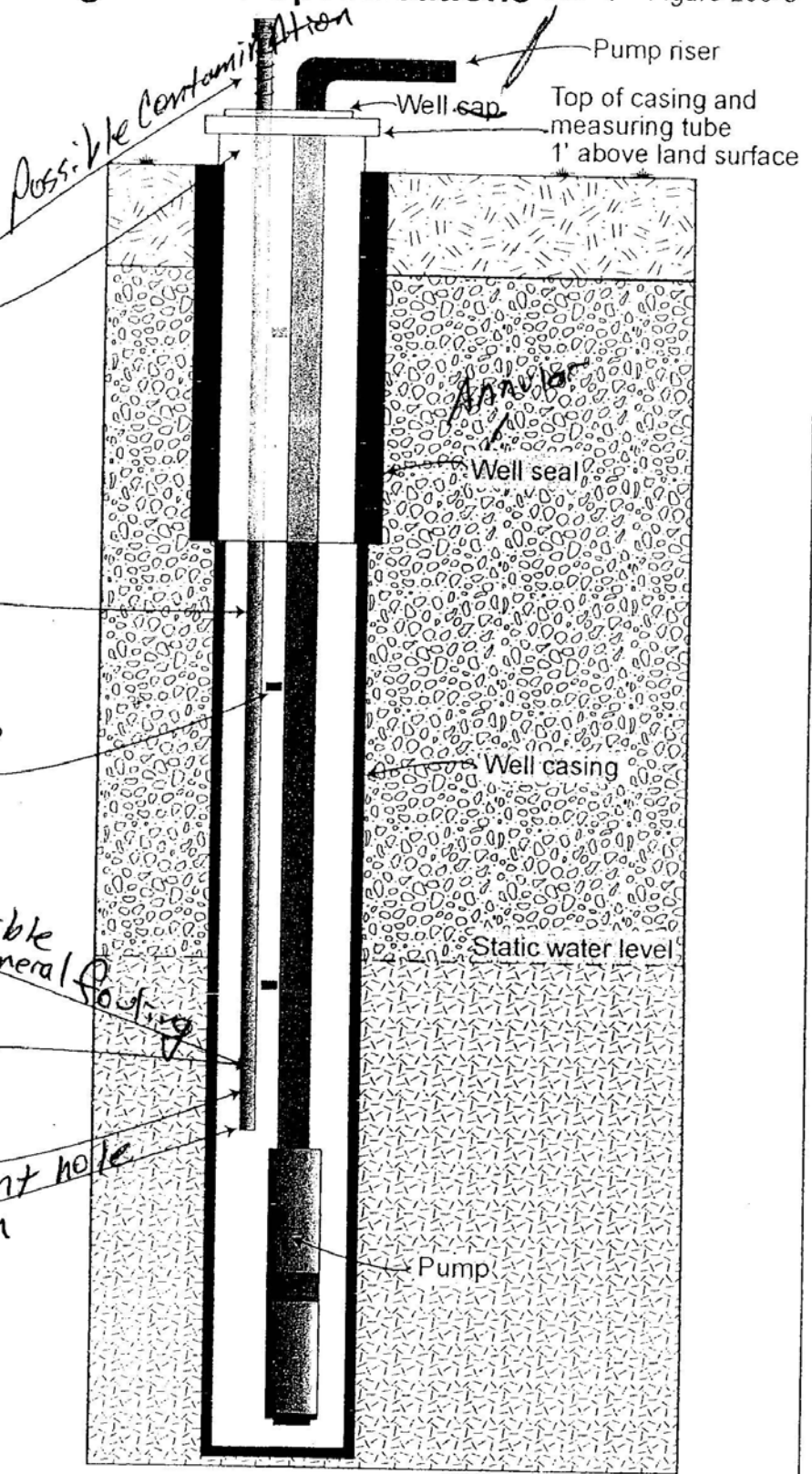
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# Measuring Tube Diagram and Specifications <sup>seal</sup> Figure 200-5

- Minimum Specifications for Measuring Tube**
- Vented above and below well cap.
  - If well has a pitless adaptor, the measuring tube terminates within 6 inches of the top of well casing.
  - Measuring tube nominal 3/4 inch diameter schedule 40 PVC.
  - Attached to pump column at 10 foot intervals with 10 mil plastic tape. *NOT so specific*
  - Perforation / Screen
    - Lower 5 feet 0.020 inch machine-slotted well screen or
    - Lower 20 feet extensively perforated with 1/8 inch holes. *Possible mineral fouling*
  - Extends to top of pump. *with a vent hole*
  - Plug or cap. *in bottom*



This diagram details the recommended minimum standards for a dedicated measuring tube. A measuring tube may be constructed in a manner that exceeds these standards without prior Department approval. The dedicated measuring tube shall not be reduced in size over the length of the pipe and shall remain free from wires or any other obstruction.

TO: Water Resources Department

725 Summer Street NE, Suite A

Salem, OR 97301-1271

ATTN: Rule Coordinator

Fax: 503-986-0903

e-mail: [rule-coordinator@wrд.state.or.us](mailto:rule-coordinator@wrд.state.or.us)

Date: March 8, 2008

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WATER RESOURCES DEPT  
SALEM, OREGON

FROM: PAT IVERS  
(name)

21881 River Rd NE  
(mailing address)

ST Paul OR 97137  
(city, state, zip)

Please find my comments herein related to the proposed rules establishing special area standards for well construction and maintenance in the Eola Hills Ground Water Limited Area of Polk and Yamhill Counties and in the Petes Mountain Area in Clackamas County.

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Signature: 

(Note: Letters or other materials expressing your opinion need not be typed, but should be legible.)



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SALEM, OREGON

1 comer of Section 5; thence North 1 40' 45" West - 410.32 feet; thence  
2 South 59 54' 45" East - 1307.02 feet more or less to the point of  
3 beginning.

4 (B) Any new, altered, deepened or converted well in the sedimentary units  
5 (clay, sand, silt, gravel) in the Lakeview Area shall be cased and sealed  
6 according to OAR 690, Division 210 with the following additional  
7 requirements:

8 (a) Unperforated casing and seal shall extend from land surface to a depth  
9 of 250 feet below land surface; and

10 (b) Perforated casing may extend below the seal.

11 (C) Liner installed in any new, altered, deepened or converted well in the  
12 sedimentary units (clay, sand, silt, gravel) in the Lakeview Area shall not  
13 extend more than 10 feet above the bottom of the unperforated casing.

14 (D) Alternatives to the special area standards shall be approved only if it  
15 can be demonstrated that the alternative techniques proposed to be used  
16 are as effective as the techniques required in subsection (1)(B) and (1)(C)  
17 above. Such alternatives require prior written approval by the Department  
18 and follow-up testing as may be required by the Department.

19 (E) Except as they may conflict with subsection (1) (B) and (1)(C), all  
20 other provisions of Oregon Administrative Rules for Well Construction  
21 and Maintenance Standards apply.

22 (F) This rule is applicable to wells for which construction, alteration,  
23 deepening or conversion began on or after April 1, 2004.

New language is in bold and underlined: **example**  
All italicized text in brackets [*example*] is proposed to be removed  
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1 (G) This special area standard may be revised at a future date when  
2 additional information and analysis is provided from other agencies  
3 including the Oregon Department of Environmental Quality.

4 Stat. Auth.: ORS 537.780, 536.027, 536.090

5 Stats. Implemented: ORS 537.505 - 537.795, 537.780(1)

6 Hist.: WRD 2-2004, f. & cert. ef. 4-1-04

7 **2) Special Area Standards for the Construction, Conversion and**  
8 **Maintenance of Water Supply Wells for the "Petes Mountain Area",**  
9 **Clackamas County.**

10 **(A) As used in this rule and illustrated in Figure 200-4, "The Petes Mountain**  
11 **Area" includes the area located in Sections 28, 29, 32, 33 and 34 Township 2**  
12 **South, Range 1 East, Willamette Meridian; and Sections 2, 3, 4, 5, 9, 10, 11,**  
13 **15 and 16, Township 3 South, Range 1 East, Willamette Meridian.**  
14 **Beginning at the intersection of SW Ek Road and SW Stafford Road (T.2 S.,**  
15 **R.1 E., Sec. 29); thence southerly along SW Stafford Road to SW Mountain**  
16 **Road; thence southerly along SW Mountain Road to SW Hoffman Road;**  
17 **thence easterly along SW Hoffman Road to the intersection of SW Hoffman**  
18 **Road, SW Petes Mountain Road and SW Riverwood Drive; thence due east**  
19 **to the Willamette River; thence northerly along the Willamette River to the**  
20 **mouth of the Tualatin River; thence northwesterly along the Tualatin River**  
21 **to SW Borland Road (a.k.a. Willamette Falls Drive); thence northwesterly**  
22 **along SW Borland Road to SW Ek Road ; thence westerly along SW Ek**  
23 **Road to SW Stafford Road, to the point of beginning.**

24 **(B) All new, altered, deepened or converted wells constructed in the**  
25 **Petes Mountain Area shall be <sup>constructed</sup> ~~cased and sealed~~ in accordance with**  
26 **~~OAR 690, Division 210~~ with the following additional requirements:**

New language is in bold and underlined: example

All italicized text in brackets [example] is proposed to be removed

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SALEM, OREGON

1           corner of Section 5; thence North 1 40' 45" West - 410.32 feet; thence  
2           South 59 54' 45" East - 1307.02 feet more or less to the point of  
3           beginning.

4           (B) Any new, altered, deepened or converted well in the sedimentary units  
5           (clay, sand, silt, gravel) in the Lakeview Area shall be cased and sealed  
6           according to OAR 690, Division 210 with the following additional  
7           requirements:

8           (a) Unperforated casing and seal shall extend from land surface to a depth  
9           of 250 feet below land surface; and

10          (b) Perforated casing may extend below the seal.

11          (C) Liner installed in any new, altered, deepened or converted well in the  
12          sedimentary units (clay, sand, silt, gravel) in the Lakeview Area shall not  
13          extend more than 10 feet above the bottom of the unperforated casing.

14          (D) Alternatives to the special area standards shall be approved only if it  
15          can be demonstrated that the alternative techniques proposed to be used  
16          are as effective as the techniques required in subsection (1)(B) and (1)(C)  
17          above. Such alternatives require prior written approval by the Department  
18          and follow-up testing as may be required by the Department.

19          (E) Except as they may conflict with subsection (1) (B) and (1)(C), all  
20          other provisions of Oregon Administrative Rules for Well Construction  
21          and Maintenance Standards apply.

22          (F) This rule is applicable to wells for which construction, alteration,  
23          deepening or conversion began on or after April 1, 2004.

New language is in bold and underlined: **example**

All italicized text in brackets [*example*] is proposed to be removed

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SALEM, OREGON

1 (a) All new wells shall have a nominal minimum well casing diameter  
2 of at least 6 inches.

3 (b) All wells shall have a minimum 3/4-inch diameter dedicated  
4 measuring tube installed at the time of pump installation, pump  
5 repair or pump replacement (See Figure 200-5 and OAR 690-215-  
6 0200).

7 (C) Alternatives to the special area standards shall be approved only  
8 if it can be demonstrated that the alternative techniques proposed to  
9 be used are as effective as the techniques required in subsection (2)(B)  
10 above. Such alternatives require prior written approval by the  
11 Department. In addition, follow-up testing may be required by the  
12 Department to insure the effectiveness of the alternative technique.

13 (D) Except as they may conflict with subsection (2)(B), all other  
14 provisions of Oregon Administrative Rules for Well Construction and  
15 Maintenance Standards apply.

16 (E) This rule is applicable to <sup>new wells or to</sup> wells for which pump installation, repair  
17 or replacement began on or after July 1, 2008.

18 (F) This special area standard may be revised at a future date when  
19 additional information and analysis is provided from other agencies  
20 including the Oregon Department of Environmental Quality.

21 3) Special Area Standards for the Construction, Conversion and  
22 Maintenance of Water Supply Wells for the "Eola Hills Ground Water  
23 Limited Area," Polk and Yamhill Counties.

24 (A) As used in this rule and illustrated in Figure 200-7, "The Eola Hills  
25 Ground Water Limited Area" includes all or portions of Sections 4 through

New language is in bold and underlined: example

All italicized text in brackets [*example*] is proposed to be removed.

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1 9, 16 through 21, and 29 through 32, Township 6 South, Range 3 West,  
2 Willamette Meridian; Sections 3 through 10, 15 through 22, 28, 29 and 30,  
3 Township 7 South, Range 3 West, Willamette Meridian; Sections 1 through  
4 5, 8 through 17, 20 through 29, and 32 through 36, Township 6 South, Range  
5 4 West, Willamette Meridian; and Sections 1 through 30, Township 7 South,  
6 Range 4 West, Willamette Meridian. The boundary of the Eola Hills area is  
7 as follows: Beginning at the intersection of the south line of Township 5  
8 South and U.S. Highway 99W, thence east along the township line to the  
9 Willamette River, thence southerly to Oregon State Highway 22, thence  
10 westerly to U.S. Highway 99W, thence northerly along Hwy 99W to the point  
11 of beginning.

12 (B) All new, altered, deepened or converted wells constructed in the Eola  
13 Hills Ground Water Limited Area shall be <sup>constructed</sup> ~~cased and sealed~~ in accordance  
14 with OAR 690, Division 210 with the following additional requirements:

15 (a) All wells, in all aquifers, shall have a minimum 3/4-inch diameter  
16 dedicated measuring tube installed at the time of pump installation,  
17 pump repair or pump replacement (See Figure 200-5 and OAR 690-  
18 215-0200).

NO  
← min.  
CASINGS DIA ?

19 (b) All new and deepened wells developing water from basalt in the  
20 Eola Hills Ground Water Limited Area shall be limited to one aquifer  
21 and shall be continuously cased and sealed to within 100 feet of the  
22 bottom of the hole. If LEFT in, you might NOT BE ABLE TO  
DEEPEN A WELL AT ALL.

23 (C) Alternatives to the special area standards shall be approved only  
24 if it can be demonstrated that the alternative techniques proposed to  
25 be used are as effective as the techniques required in subsections  
26 (3)(B) above. Such alternatives require prior written approval by the  
27 Department. In addition, follow-up testing may be required by the  
28 Department to insure the effectiveness of the alternative technique.

New language is in bold and underlined: **example**

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1 (D) Except as they may conflict with subsection (3)(B), all other  
2 provisions of Oregon Administrative Rules for Well Construction and  
3 Maintenance Standards apply.

4 (E) This rule is applicable to <sup>new wells constructed, altered or deepened, and to</sup> wells for which pump installation, repair  
5 or replacement began on or after July 1, 2008.

6 690-200-0030

7 **Public Safety**

8 No water supply well shall be constructed, maintained, or abandoned in  
9 such a manner as to constitute a health threat, or health hazard or a menace  
10 to public safety.

11 Stat. Auth.: ORS 183, ORS 536, ORS 537 & ORS 540  
12 Stats. Implemented: ORS 183, ORS 536, ORS 537 & ORS 540  
13 Hist.: WRD 3, f. & ef. 2-18-77; WRD 9-1978, f. 12-12-78, ef. 1-1-79,  
14 Renumbered from 690-060-0010 by WRD 13-1986, f. 10-7-86, ef. 11-1-  
15 86; WRD 21-1990, f. & cert. ef. 12-14-90; WRD 7-2001, f. & cert. ef. 11-  
16 15-01

17 690-200-0040

18 **Wells Cannot be Used for Disposal of Contaminants**

19 No water supply well shall be used as a disposal pit for sewage, industrial  
20 waste, or other materials that could contaminate the ground water supply.

21 Stat. Auth.: ORS 183, ORS 536, ORS 537 & ORS 540  
22 Stats. Implemented: ORS 183, ORS 536, ORS 537 & ORS 540  
23 Hist.: WRD 9-1978, f. 12-12-78, ef. 1-1-79; Renumbered from 690-062-

New language is in bold and underlined: example  
All italicized text in brackets [example] is proposed to be removed  
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1 Stat. Auth.: ORS 183, ORS 536, ORS 537 & ORS 540

2 Stats. Implemented: ORS 183, ORS 536, ORS 537 & ORS 540

3 Hist.: WRD 7-2001, f. & cert. ef. 11-15-01

4 **690-200-0050**

5 **Definitions**

6 The Water Resources Commission uses the definitions of the words listed  
7 below in the administration and enforcement of Oregon's Ground Water  
8 Law and the Rules and Regulations for the Construction and Alteration of  
9 Wells. No other definitions of these same words apply:

10 (1) "Abandonment, Permanent" means to remove a well from service by  
11 completely filling it in such a manner that vertical movement of water  
12 within the well bore and within the annular space surrounding the well  
13 casing, is effectively and permanently prevented. If a portion of a well is  
14 to be abandoned in order to prevent commingling, waste, or loss of  
15 artesian pressure, the abandonment shall conform with the requirements of  
16 OAR chapter 690, division 220 for water supply wells. This term is  
17 synonymous with "decommission."

18 (2) "Abandonment, Temporary" means to remove a drilling machine from  
19 a well site after completing or altering a well provided the well is not  
20 immediately put into service, or to remove a well from service with the  
21 intent of using it in the future.

22 (3) "Access Port" means a minimum 1/2-inch tapped hole and plug, a 1/2-  
23 inch capped pipe welded onto the casing in the upper portion of a water  
24 supply well, **or a dedicated measuring tube** to permit unobstructed entry  
25 to determine the water level in the well at any time.,

New language is in bold and underlined: **example**

All italicized text in brackets [*example*] is proposed to be removed

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WATER RESOURCES DEPT  
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1 690-210-0280

2 **Access Ports, Dedicated Measuring Tubes and Airlines**

3 All water supply wells shall be equipped with a usable access port with a minimum diameter of

4 1/2 inch for the purpose of determining the water level in the well at anytime. Dedicated

5 measuring tubes are recommended to be installed on all wells at the time of pump

6 installation. Where required, dedicated measuring tubes shall be a minimum of 3/4 inch

7 schedule 40 PVC extending to the top of the pump (See Dedicated Measuring Tube

8 Diagram and Specifications in Figure 200-5). An airline is not <sup>A ACCESS TUBE, and IS NOT</sup> a substitute for a required

9 dedicated measuring tube and, if installed, must enter the well in a location other than the

10 access port. [*Unless it is located inside the well casing, the*] A[a]ccess ports, dedicated

11 measuring tubes or airlines shall be capped and be a minimum of twelve inches above finished

12 ground surface or pumphouse floor[. *If the well constructor does not install a pump in the well,*

13 *the landowner will be required to provide the access port.*] (See Figure 210-12[.]) (See Figure

14 200-5). The access port, [*or*] airline and dedicated measuring tube on all water supply wells

15 required by OAR 690-210-0280 shall be maintained in a condition that will prevent

16 contamination of the ground water, and shall remain unobstructed and be maintained by the

17 landowner so that the water level can be determined at any time.

18 [ED. NOTE: Figures referenced are available from the agency.]

19

20 Stat. Auth.: ORS 536.090 & ORS 537.505 - ORS 537.795

21 Stats. Implemented.

New language is in bold and underlined: **Example**

All italicized text in brackets [*example*] is proposed to be removed

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1 well identification label placement instructions

2 [ED. NOTE: Appendix referenced in this rule is available from the agency.]

3

4 Stat. Auth.: ORS 536.090 & ORS 537.505 - ORS 537.795

5 Stats. Implemented: ORS 536.090 & ORS 537.505 - ORS 537.795

6 Hist.: WRD 7-2001, f & cert. ef. 11-15-01

7

8 690-215-0060

9 **Access Ports, Dedicated Measuring Tubes or Airlines**

10 All water supply wells shall be equipped with an unobstructed access port with a minimum  
11 diameter of 1/2 inch for the purpose of determining the water level in the well at any time

12 **Dedicated measuring tubes are recommended to be installed on all wells at the time of**  
13 **pump installation. Where required, dedicated measuring tubes shall be a minimum of 3/4**  
14 **inch diameter schedule 40 PVC and shall extend to the top of the pump. The dedicated**  
15 **measuring tube shall be vented above and below the well cap and shall be attached to the**  
16 **pump column at 10 foot intervals with 10 mil plastic tape. The lower five feet of the**  
17 **dedicated measuring tube shall be either 0.020 inch machine slotted well screen or the**  
18 **lower 20 feet of the dedicated measuring tube shall be extensively perforated with 1/8 inch**  
19 **holes. The dedicated measuring tube shall be plugged or capped at the bottom (Figure 200-**  
20 **5). The dedicated measuring tube shall not be reduced in size over the length of the pipe**  
21 **and shall remain free from wire or other obstruction. An airline is not a substitute for a**

New language is in bold and underlined: **Example**

All italicized text in brackets [example] is proposed to be removed

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SALEM, OREGON

1 required dedicated measuring tube and, if installed, must enter the well in a location other  
2 than the access port. Access ports, dedicated measuring tubes or airlines [*Unless it located*  
3 *inside the well casing, access ports or airlines*] shall be capped and a minimum of twelve inches  
4 above finished ground surface or pumphouse floor. If the well has a pitless adaptor then the  
5 dedicated measuring tube shall terminate within six inches of the top of the well casing. [*If*  
6 *an airline is installed and cannot be used as an access port, it must enter the well in a location*  
7 *other than the access port.*] The access port, *for*/airline and dedicated measuring tube on all  
8 water supply wells required by OAR 690-210-0280 shall be maintained in a condition that will  
9 prevent contamination of the ground water, and shall remain unobstructed and be maintained by  
10 the landowner so that the water level can be determined at any time.

11

12 Stat. Auth.: ORS 183, ORS 536, ORS 537 &amp; ORS 540

13 Stats. Implemented:

14 Hist.: WRD 3, f. &amp; ef. 2-18-77, WRD 9-1978, f. 12-12-78, ef. 1-1-79, WRD 13-1986, f. 10-7-86, ef. 11-1-86,

15 Renumbered from 690-062-0015; WRD 7-2001, f. &amp; cert. ef. 11-15-01

16

17 **690-215-0070**18 **Pressure Gauge**

19 The pressure gauge and petcock valve required by OAR 690-210-0155 shall be maintained so  
20 that the artesian pressure can be accurately determined at any time[.] (See Figure 210-7[.]).

21 [ED. NOTE: Figures referenced in this rule are available from the agency.]

2 Stat. Auth.: ORS 183, ORS 536, ORS 537 & ORS 540

3 Stats Implemented:

4 Hist.: WRD 3, f. & ef. 2-18-77, WRD 9-1978, f. 12-12-78, ef. 1-1-79, WRD 13-1986, f. 10-7-86, ef. 11-1-86,

5 Renumbered from 690-062-0020; WRD 7-2001, f. & cert. ef. 11-15-01

6

7 **690-215-0080**

8 **Flowmeters and Dedicated Measuring Tubes**

9 The Director may require the landowner to install totalizing flowmeters **or dedicated measuring**  
10 **tubes** on any water supply well, either as a condition of a water right permit or at a later date as  
11 circumstances may warrant. The landowner may be required to install totalizing flowmeters **or**  
12 **dedicated measuring tubes** on existing permitted wells and on wells which are exempted by  
13 ORS 537.545.

14

15 Stat. Auth.: ORS 183, ORS 536, ORS 537 & ORS 540

16 Stats. Implemented:

17 Hist.: WRD 13-1986, f. 10-7-86, ef. 11-1-86; WRD 7-2001, f. & cert. ef. 11-15-01

18

19 **690-215-0090**

20 **Conversion to an Artesian Well**

21 If a water supply well becomes artesian upon deepening, the well shall be cased, sealed and  
22 completed in accordance with OAR 690-210-0155.

New language is in bold and underlined: **Example**

All italicized text in brackets [*example*] is proposed to be removed

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Stat. Auth. ORS 183, ORS 536, ORS 537 & ORS 540

Stats. Implemented

Hist.: WRD 9-1978, f. 12-12-78, ef. 1-1-79, WRD 13-1986, f. 10-7-86, ef. 11-1-86, Renumbered from 690-061-0236; WRD 7-2001, f. & cert. ef. 11-15-01

**690-215-0100**

**Drilling in a Dug Well**

In no case shall a dug well be deepened by drilling methods

Stat. Auth. ORS 183, ORS 536, ORS 537 & ORS 540

Stats. Implemented

Hist.: WRD 9-1978, f. 12-12-78, ef. 1-1-79, WRD 13-1986, f. 10-7-86, ef. 11-1-86, Renumbered from 690-061-0241

**690-215-0200**

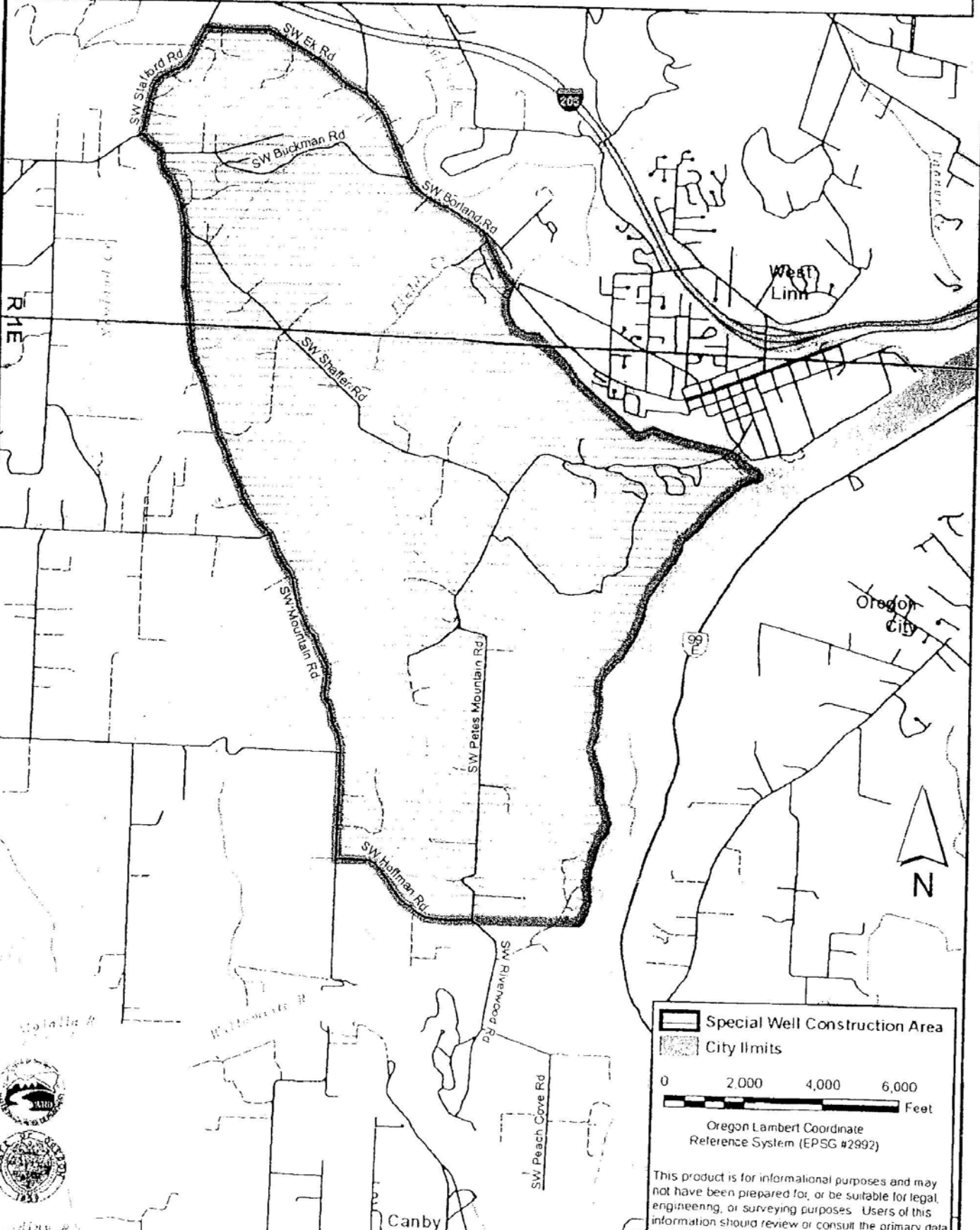
**Dedicated Measuring Tube**

**A dedicated measuring tube as described in 690-215-0060 shall be installed in any water supply well at the time of pump installation, pump repair or pump replacement in the following areas (See Figures 200-4, 200-5 and 200-7):** *need figure for PITLESS APPLICATION*

1. **Pete's Mountain Area of Clackamas County (See OAR 690-200-0028(2)).**
2. **Eola Hills Ground Water Limited Area of Polk and Yamhill Counties (See OAR 690-200-0028(3)).**

# Special Area Standards: Petes Mountain Area

T2S  
T3S



**Special Well Construction Area**  
**City Limits**

0 2,000 4,000 6,000 Feet

Oregon Lambert Coordinate Reference System (EPSG #2992)

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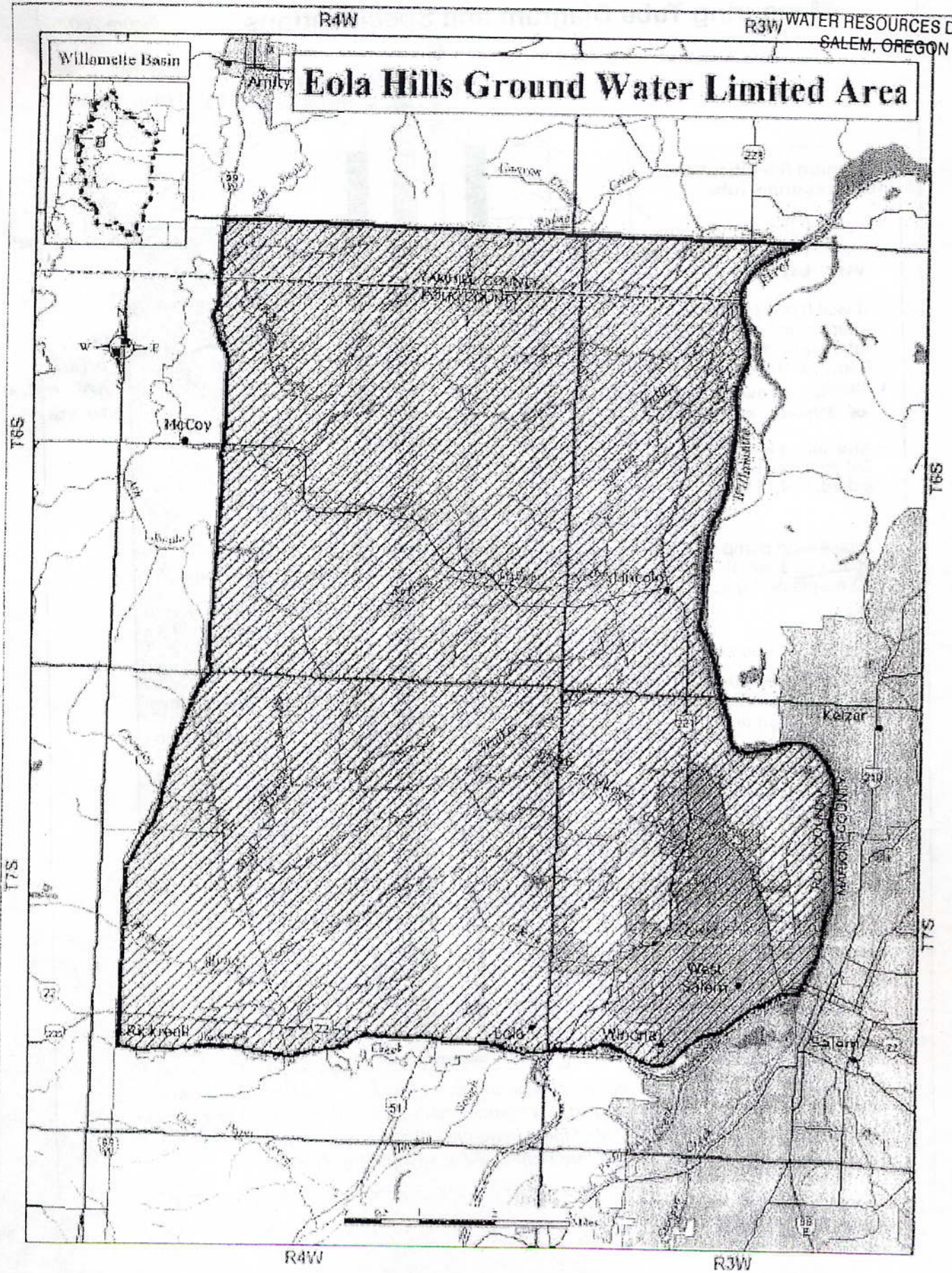




Special Area Standards

OAR 690-200-0028

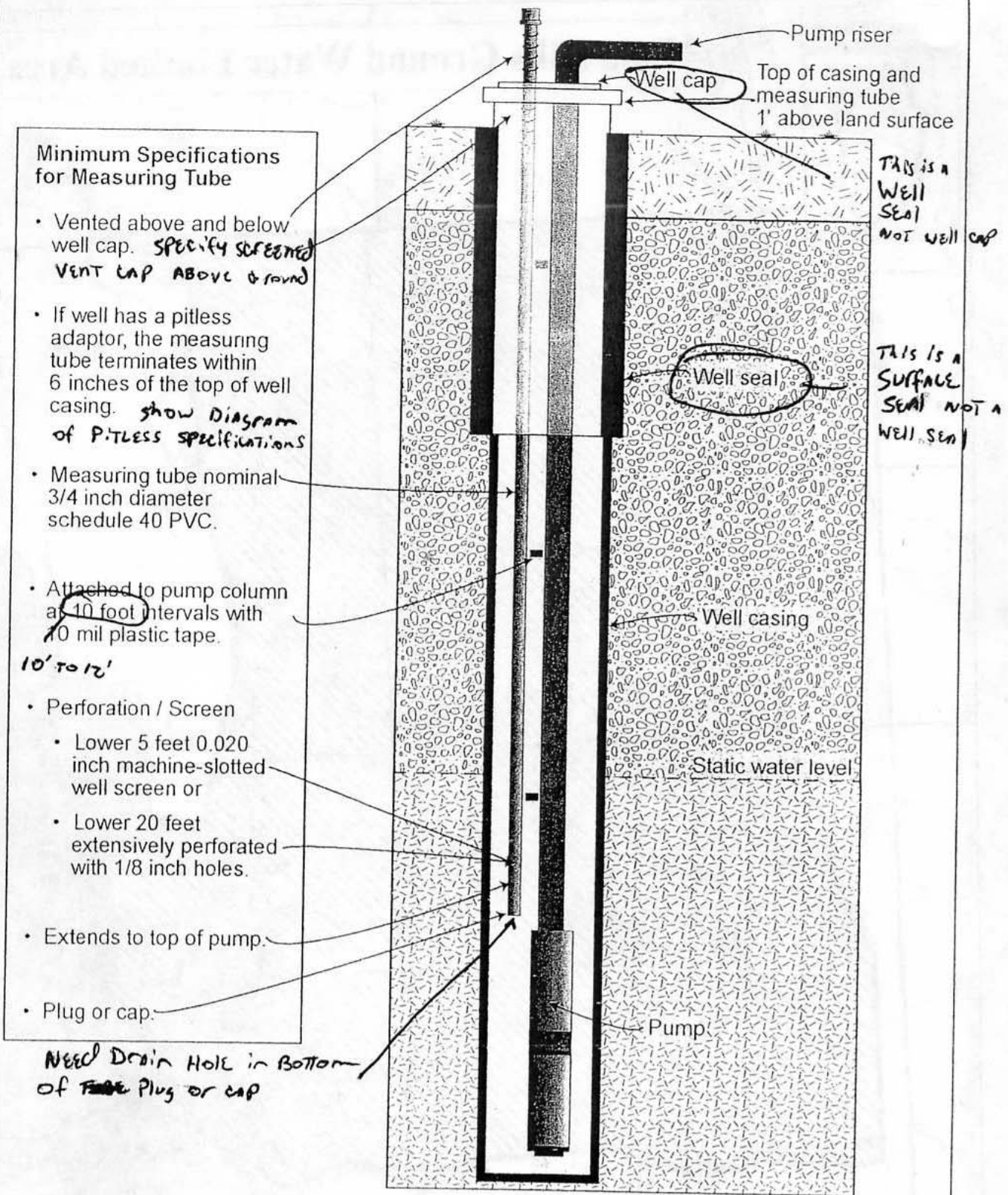
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# Measuring Tube Diagram and Specifications

Figure 200-5



## Minimum Specifications for Measuring Tube

- Vented above and below well cap. *SPECIFY SCREENED VENT CAP ABOVE & ROUND*
- If well has a pitless adaptor, the measuring tube terminates within 6 inches of the top of well casing. *show Diagram of PITLESS SPECIFICATIONS*
- Measuring tube nominal 3/4 inch diameter schedule 40 PVC.
- Attached to pump column at *10 foot* intervals with 10 mil plastic tape. *10' to 12'*
- Perforation / Screen
  - Lower 5 feet 0.020 inch machine-slotted well screen or
  - Lower 20 feet extensively perforated with 1/8 inch holes.
- Extends to top of pump.
- Plug or cap.

*NEED DRAIN HOLE in BOTTOM of Plug or cap*

This diagram details the recommended minimum standards for a dedicated measuring tube. A measuring tube may be constructed in a manner that exceeds these standards without prior Department approval. The dedicated measuring tube shall not be reduced in size over the length of the pipe and shall remain free from wires or any other obstruction.

TO: Water Resources Department

Date: March 10, 2008

725 Summer Street NE, Suite A

Salem, OR 97301-1271

ATTN: Rule Coordinator

Fax: 503-986-0903

e-mail: [rule-coordinator@wrd.state.or.us](mailto:rule-coordinator@wrd.state.or.us)

**RECEIVED**

MAR 10 2008

WATER RESOURCES DEPT  
SALEM, OREGON

FROM: Michael Waldroop  
(name)

1118 Lancaster Dr NE #381  
(mailing address)

Salem, OR 97301  
(city, state, zip)

Please find my comments herein related to the proposed rules establishing special area standards for well construction and maintenance in the Eola Hills Ground Water Limited Area of Polk and Yamhill Counties and in the Petes Mountain Area in Clackamas County.

*Alterations made herein constitute the change I feel would simplify the language + intent of this draft*

Signature: Michael Waldroop

(Note: Letters or other materials expressing your opinion need not be typed, but should be legible.)

1 [ED. NOTE Tables and Figures referenced are available from the  
2 agency ]

3 Stat. Auth. ORS 536.027, ORS 536.090 & ORS 537.505 - ORS 537.795

4 Stats. Implemented ORS 536.090 & ORS 537.505 - ORS 537.795

5 Hist. WRD 7-1988, f. & cert. ef. 6-29-88; WRD 8-1993, f. 12-14-93, cert.

6 ef. 1-1-94, WRD 7-2001, f. & cert. ef. 11-15-01

7 **690-200-0028**

8 **Designated Special Area Standards**

9 (1) Special Area Standards for the Construction and Alteration of Water  
10 Supply Wells in the Lakeview Area.

11 (A) As used in this rule and illustrated in Figure 200-3, "The Lakeview  
12 Area" includes the area located in Sections 4, 5, 8 and 9 of Township 39  
13 South, Range 20 East of the Willamette Meridian, Lake County, Oregon.  
14 Beginning at a point on the West line of Section 4, said point bears South  
15 1 40' 45" East - 2245.31 feet from the Northwest Corner of Section 4;  
16 thence South 89 54' 45" East- 1907.04 feet to the West right of way line of  
17 the Fremont Logging Road; thence South 39 26' 40" East along the West  
18 right of way line of the Fremont Logging Road - 3095.16 feet; thence  
19 South 1 53' 14" East - 617.32 feet to the South line of Section 4; thence  
20 continuing in Section 9 - South 00 13' 8" West parallel to the North South  
21 centerline of Section 9 - 2649.14 feet to the East West centerline of  
22 Section 9; thence South 89 45' 31" West along the East West centerline of  
23 Section 9 - 3782.55 feet more or less to the West line of Section 9; thence  
24 West along the East West centerline of Section 8 - 1320.00 feet more or  
25 less to the center East 1/16 corner of Section 8; thence North 2640.00 feet  
26 more or less to the East 1/16 corner common to Sections 5 and 8; thence  
27 North 1 41' 33" West - 2630.48 feet more or less to the center East 1/16

New language is in bold and underlined: **example**

All italicized text in brackets [*example*] is proposed to be removed

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1 corner of Section 5, thence North 1 40' 45" West - 410 32 feet, thence  
2 South 59 54' 45" East - 1307.02 feet more or less to the point of  
3 beginning

4 (B) Any new, altered, deepened or converted well in the sedimentary units  
5 (clay, sand, silt, gravel) in the Lakeview Area shall be cased and sealed  
6 according to OAR 690, Division 210 with the following additional  
7 requirements

8 (a) Unperforated casing and seal shall extend from land surface to a depth  
9 of 250 feet below land surface; and

10 (b) Perforated casing may extend below the seal.

11 (C) Liner installed in any new, altered, deepened or converted well in the  
12 sedimentary units (clay, sand, silt, gravel) in the Lakeview Area shall not  
13 extend more than 10 feet above the bottom of the unperforated casing.

14 (D) Alternatives to the special area standards shall be approved only if it  
15 can be demonstrated that the alternative techniques proposed to be used  
16 are as effective as the techniques required in subsection (1)(B) and (1)(C)  
17 above. Such alternatives require prior written approval by the Department  
18 and follow-up testing as may be required by the Department.

19 (E) Except as they may conflict with subsection (1) (B) and (1)(C), all  
20 other provisions of Oregon Administrative Rules for Well Construction  
21 and Maintenance Standards apply.

22 (F) This rule is applicable to wells for which construction, alteration,  
23 deepening or conversion began on or after April 1, 2004.

New language is in bold and underlined: example  
All italicized text in brackets [example] is proposed to be removed  
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1 (G) This special area standard may be revised at a future date when  
2 additional information and analysis is provided from other agencies  
3 including the Oregon Department of Environmental Quality

4 Stat. Auth : ORS 537.780, 536.027, 536.090

5 Stats. Implemented: ORS 537.505 - 537.795, 537.780(1)

6 Hist.: WRD 2-2004, f. & cert. ef 4-1-04

7 2) Special Area Standards for the Construction, Conversion and  
8 Maintenance of Water Supply Wells for the "Petes Mountain Area",  
9 Clackamas County.

10 (A) As used in this rule and illustrated in Figure 200-4, "The Petes Mountain  
11 Area" includes the area located in Sections 28, 29, 32, 33 and 34 Township 2  
12 South, Range 1 East, Willamette Meridian; and Sections 2, 3, 4, 5, 9, 10, 11,  
13 15 and 16, Township 3 South, Range 1 East, Willamette Meridian.  
14 Beginning at the intersection of SW Ek Road and SW Stafford Road (T.2 S.,  
15 R.1 E., Sec. 29); thence southerly along SW Stafford Road to SW Mountain  
16 Road; thence southerly along SW Mountain Road to SW Hoffman Road;  
17 thence easterly along SW Hoffman Road to the intersection of SW Hoffman  
18 Road, SW Petes Mountain Road and SW Riverwood Drive; thence due east  
19 to the Willamette River; thence northerly along the Willamette River to the  
20 mouth of the Tualatin River; thence northwesterly along the Tualatin River  
21 to SW Borland Road (a.k.a. Willamette Falls Drive); thence northwesterly  
22 along SW Borland Road to SW Ek Road ; thence westerly along SW Ek  
23 Road to SW Stafford Road, to the point of beginning.

24 (B) All ~~new, altered, deepened or converted~~ wells constructed in the  
25 Petes Mountain Area shall be ~~cased and sealed in accordance with~~ *constructed*  
26 ~~OAR 690, Division 210~~ with the following additional requirements:

New language is in bold and underlined: example

All italicized text in brackets [example] is proposed to be removed

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1 (a) All new wells shall have a nominal minimum well casing diameter  
2 of at least 6 inches.

3 (b) All wells shall have a minimum 3/4-inch diameter dedicated  
4 measuring tube installed at the time of pump installation, pump  
5 repair or pump replacement (See Figure 200-5 and OAR 690-215-  
6 0200).

7 (C) Alternatives to the special area standards shall be approved ~~only~~  
8 if it can be demonstrated that the alternative techniques proposed to  
9 be used are as effective <sup>in facilitating water level measurements with similar</sup> as the techniques required in subsection (2)(B)  
10 <sup>ease as those specified in (2)(B) above</sup> ~~above~~. Such alternatives require prior written approval by the  
11 Department. In addition, follow-up testing may be required by the  
12 Department to insure the effectiveness of the alternative technique.

13 (D) Except as they may conflict with subsection (2)(B), all other  
14 provisions of Oregon Administrative Rules for Well Construction and  
15 Maintenance Standards apply.

16 (E) This rule is applicable to <sup>new wells constructed on or after July 1, 2008 and to all</sup> wells for which pump installation, repair  
17 or replacement began on or after July 1, 2008.

18 ~~(F) This special area standard may be revised at a future date when~~  
19 ~~additional information and analysis is provided from other agencies~~  
20 ~~including the Oregon Department of Environmental Quality.~~

21 3) Special Area Standards for the Construction, Conversion and  
22 Maintenance of Water Supply Wells for the "Eola Hills Ground Water  
23 Limited Area," Polk and Yamhill Counties.

24 (A) As used in this rule and illustrated in Figure 200-7, "The Eola Hills  
25 Ground Water Limited Area" includes all or portions of Sections 4 through

New language is in bold and underlined example  
All italicized text in brackets [example] is proposed to be removed  
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1 9, 16 through 21, and 29 through 32, Township 6 South, Range 3 West,  
2 Willamette Meridian; Sections 3 through 10, 15 through 22, 28, 29 and 30,  
3 Township 7 South, Range 3 West, Willamette Meridian; Sections 1 through  
4 5, 8 through 17, 20 through 29, and 32 through 36, Township 6 South, Range  
5 4 West, Willamette Meridian; and Sections 1 through 30, Township 7 South,  
6 Range 4 West, Willamette Meridian. The boundary of the Eola Hills area is  
7 as follows: Beginning at the intersection of the south line of Township 5  
8 South and U.S. Highway 99W, thence east along the township line to the  
9 Willamette River, thence southerly to Oregon State Highway 22, thence  
10 westerly to U.S. Highway 99W, thence northerly along Hwy 99W to the point  
11 of beginning.

12 (B) All ~~new, altered, deepened or converted~~ wells constructed in the Eola  
13 Hills Ground Water Limited Area shall be ~~cased and sealed~~ <sup>constructed</sup> in accordance  
14 with OAR 690, Division 210 with the following additional requirements:

15 (a) All wells, in all aquifers, shall have a minimum 3/4-inch diameter  
16 dedicated measuring tube installed at the time of pump installation,  
17 pump repair or pump replacement (See Figure 200-5 and OAR 690-  
18 215-0200).

← No 6" minimum casing requirement like Petes Mountain?

19 (b) All new and deepened wells developing water from basalt in the  
20 Eola Hills Ground Water Limited Area shall be limited to one aquifer  
21 and shall be continuously cased and sealed to within 100 feet of the  
22 bottom of the hole. Continuous sealing may include the use of  
impermeable sealing material between an upper and lower sealing interval.

23 (C) Alternatives to the special area standards shall be approved ~~only~~

24 if it can be demonstrated that the alternative techniques proposed to  
25 be used are ~~as effective as the techniques required in subsections~~ <sup>in facilitating water level measurements with similar</sup>  
26 ~~(3)(B) above~~ <sup>case as those specified in (3)(B)(a) above and/or demonstrate that there</sup> Such alternatives require prior written approval by the  
27 Department. In addition, follow-up testing may be required by the  
28 Department to insure the effectiveness of the alternative technique.

is no commingling in the uncased borehole by use of a downhole video thereby allowing extension of the 100 foot limit in (3)(B)(b) above.

New language is in bold and underlined: example  
All italicized text in brackets [example] is proposed to be removed  
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1 ~~(D) Except as they may conflict with subsection (3)(B), all other~~  
2 ~~provisions of Oregon Administrative Rules for Well Construction and~~  
3 ~~Maintenance Standards apply.~~

4 *new wells constructed and well deepening, occurring after*  
5 *July 1, 2008, and to all*  
6 (E) This rule is applicable to wells for which pump installation, repair  
7 or replacement began on or after July 1, 2008.

6 690-200-0030

7 **Public Safety**

8 No water supply well shall be constructed, maintained, or abandoned in  
9 such a manner as to constitute a health threat, or health hazard or a menace  
10 to public safety.

11 Stat. Auth.: ORS 183, ORS 536, ORS 537 & ORS 540

12 Stats. Implemented: ORS 183, ORS 536, ORS 537 & ORS 540

13 Hist: WRD 3, f. & ef. 2-18-77; WRD 9-1978, f. 12-12-78, ef. 1-1-79,

14 Renumbered from 690-060-0010 by WRD 13-1986, f. 10-7-86, ef. 11-1-  
15 86; WRD 21-1990, f. & cert. ef. 12-14-90; WRD 7-2001, f. & cert. ef. 11-  
16 15-01

17 **690-200-0040**

18 **Wells Cannot be Used for Disposal of Contaminants**

19 No water supply well shall be used as a disposal pit for sewage, industrial  
20 waste, or other materials that could contaminate the ground water supply.

21 Stat. Auth.: ORS 183, ORS 536, ORS 537 & ORS 540

22 Stats. Implemented: ORS 183, ORS 536, ORS 537 & ORS 540

23 Hist: WRD 9-1978, f. 12-12-78, ef. 1-1-79; Renumbered from 690-062-

New language is in bold and underlined example  
All italicized text in brackets [example] is proposed to be removed  
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1 Stat. Auth.: ORS 183, ORS 536, ORS 537 & ORS 540

2 Stats. Implemented: ORS 183, ORS 536, ORS 537 & ORS 540

3 Hist.: WRD 7-2001, f. & cert. ef. 11-15-01

4 **690-200-0050**

5 **Definitions**

6 The Water Resources Commission uses the definitions of the words listed  
7 below in the administration and enforcement of Oregon's Ground Water  
8 Law and the Rules and Regulations for the Construction and Alteration of  
9 Wells. No other definitions of these same words apply:

10 (1) "Abandonment, Permanent" means to remove a well from service by  
11 completely filling it in such a manner that vertical movement of water  
12 within the well bore and within the annular space surrounding the well  
13 casing, is effectively and permanently prevented. If a portion of a well is  
14 to be abandoned in order to prevent commingling, waste, or loss of  
15 artesian pressure, the abandonment shall conform with the requirements of  
16 OAR chapter 690, division 220 for water supply wells. This term is  
17 synonymous with "decommission."

18 (2) "Abandonment, Temporary" means to remove a drilling machine from  
19 a well site after completing or altering a well provided the well is not  
20 immediately put into service, or to remove a well from service with the  
21 intent of using it in the future.

22 (3) "Access Port" means a minimum 1/2-inch tapped hole and plug, a 1/2-  
23 inch capped pipe welded onto the casing in the upper portion of a water  
24 supply well, **or a dedicated measuring tube** to permit unobstructed entry  
25 to determine the water level in the well at any time.,

New language is in bold and underlined. **example**

All italicized text in brackets [example] is proposed to be removed

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1 690-210-0280

2 Access Ports, Dedicated Measuring Tubes and Airlines

3 All water supply wells shall be equipped with a usable access port with a minimum diameter of

4 1/2 inch for the purpose of determining the water level in the well at anytime Dedicated

5 measuring tubes are recommended to be installed on all wells at the time of pump

6 installation. Where required, dedicated measuring tubes shall be a minimum of 3/4 inch

7 schedule 40 PVC extending to the top of the pump (See Dedicated Measuring Tube

8 Diagram and Specifications in Figure 200-5). An airline is not *an access port and is not*

9 dedicated measuring tube and, if installed, must enter the well in a location other than the

10 access port [*Unless it is located inside the well casing, the*] A[access ports, *excluding*

11 measuring tubes *and* or airlines shall be capped and be a minimum of twelve inches above finished

12 ground surface or pumphouse floor [*If the well constructor does not install a pump in the well,*

13 *In Figures — and — .* the landowner will be required to provide the access port.] (See Figure 210-12[.]) (See Figure

14 200-5). The access port, [or]airline and dedicated measuring tube on all water supply wells

15 required by OAR 690-210-0280 shall be maintained in a condition that will prevent

16 contamination of the ground water, and shall remain unobstructed and be maintained by the

17 landowner so that the water level can be determined at any time.

18 ~~[ED NOTE: Figures referenced are available from the agency.]~~

19

20 Stat Auth ORS 536.090 & ORS 537.505 - ORS 537.795

21 Stats. Implemented

1 well identification label placement instructions

2 [ED NOTE Appendix referenced in this rule is available from the agency ]

3

4 Stat Auth ORS 536.090 & ORS 537.505 - ORS 537.795

5 Stats Implemented ORS 536.090 & ORS 537.505 - ORS 537.795

6 Hist WRD 7-2001, F & cert. ef 11-15-01

7

8 690-215-0060

9 **Access Ports, Dedicated Measuring Tubes or Airlines**

10 All water supply wells shall be equipped with an unobstructed access port with a minimum  
11 diameter of 1/2 inch for the purpose of determining the water level in the well at any time.

12 **Dedicated measuring tubes are recommended to be installed on all wells at the time of**  
13 **pump installation. Where required, dedicated measuring tubes shall be a minimum of 3/4**

14 **inch diameter schedule 40 PVC and shall extend to the top of the pump. The dedicated**  
15 **measuring tube shall be *In accordance with the requirements of Figures or***

16 **~~pump column at 10-foot intervals with 10-mil plastic tape. The lower five feet of the~~**  
17 **~~dedicated measuring tube shall be either 0.020 inch machine slotted well screen or the~~**

18 **~~lower 20 feet of the dedicated measuring tube shall be extensively perforated with 1/8 inch~~**  
19 **~~holes. The dedicated measuring tube shall be plugged or capped at the bottom (Figure 200-~~**

20 **~~5). *and*~~**  
21 **~~The dedicated measuring tube shall not be reduced in size over the length of the pipe~~**

21 **~~and shall remain free from wire or other obstruction. An airline is *not an access port and is*~~**

New language is in bold and underlined: **Example**

All italicized text in brackets [example] is proposed to be removed

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1 required dedicated measuring tube and, if installed, must enter the well in a location other  
2 than the access port. Access ports, <sup>excluding</sup> dedicated measuring tubes, <sup>and</sup> or airlines [Unless it located  
3 inside the well casing, access ports or airlines] shall be capped and a minimum of twelve inches  
4 above finished ground surface or pumphouse floor. <sup>Dedicated measuring tubes shall</sup> ~~If the well has a pitless adaptor then the~~  
5 <sup>be completed as specified in Figures — and —,</sup> ~~dedicated measuring tube shall terminate within six inches of the top of the well casing. [If~~  
6 an airline is installed and cannot be used as an access port, it must enter the well in a location  
7 other than the access port.] The access port, [or] airline and dedicated measuring tube on all  
8 water supply wells required by OAR 690-210-0280 shall be maintained in a condition that will  
9 prevent contamination of the ground water, and shall remain unobstructed and be maintained by  
10 the landowner so that the water level can be determined at any time.

12 Stat. Auth : ORS 183, ORS 536, ORS 537 & ORS 540

13 Stats. Implemented:

14 Hist : WRD 3, f. & ef. 2-18-77; WRD 9-1978, f. 12-12-78, ef. 1-1-79; WRD 13-1986, f. 10-7-86, ef. 11-1-86,

15 Renumbered from 690-062-0015; WRD 7-2001, f. & cert. ef. 11-15-01

17 **690-215-0070**

18 **Pressure Gauge**

19 The pressure gauge and petcock valve required by OAR 690-210-0155 shall be maintained so  
20 that the artesian pressure can be accurately determined at any time[.] (See Figure 210-7[.]).

21 [ED. NOTE: Figures referenced in this rule are available from the agency ]

2 Stat. Auth.: ORS 183, ORS 536, ORS 537 & ORS 540

3 Stats. Implemented

4 Hist.: WRD 3, f. & ef. 2-18-77, WRD 9-1978, f. 12-12-78 ef. 1-1-79, WRD 13-1986, f. 10-7-86, ef. 11-1-86,  
5 Renumbered from 690-062-0020, WRD 7-2001, f. & cert. ef. 11-15-01

6

7 **690-215-0080**

8 **Flowmeters and Dedicated Measuring Tubes**

9 The Director may require the landowner to install totalizing flowmeters **or dedicated measuring**  
10 **tubes** on any water supply well, either as a condition of a water right permit or at a later date as  
11 circumstances may warrant. The landowner may be required to install totalizing flowmeters **or**  
12 **dedicated measuring tubes** on existing permitted wells and on wells which are exempted by  
13 ORS 537.545.

14

15 Stat. Auth.: ORS 183, ORS 536, ORS 537 & ORS 540

16 Stats. Implemented:

17 Hist.: WRD 13-1986, f. 10-7-86, ef. 11-1-86, WRD 7-2001, f. & cert. ef. 11-15-01

18

19 **690-215-0090**

20 **Conversion to an Artesian Well**

21 If a water supply well becomes artesian upon deepening, the well shall be cased, sealed and  
22 completed in accordance with OAR 690-210-0155.

New language is in bold and underlined: **Example**

All italicized text in brackets [*example*] is proposed to be removed

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2 Stat. Auth. ORS 183, ORS 536, ORS 537 & ORS 540

3 Stats. Implemented

4 Hist.: WRD 9-1978, f. 12-12-78, ef. 1-1-79, WRD 13-1986, f. 10-7-86, ef. 11-1-86, Renumbered from 690-061-  
5 0236; WRD 7-2001, f. & cert. ef. 11-15-01

6

7 **690-215-0100**

8 **Drilling in a Dug Well**

9 In no case shall a dug well be deepened by drilling methods.

10

11 Stat. Auth.: ORS 183, ORS 536, ORS 537 & ORS 540

12 Stats. Implemented:

13 Hist.: WRD 9-1978, f. 12-12-78, ef. 1-1-79, WRD 13-1986, f. 10-7-86, ef. 11-1-86, Renumbered from 690-061-

14 0241

15

16 **690-215-0200**

17

18 **Dedicated Measuring Tube**

19

20 **A dedicated measuring tube as described in 690-215-0060 shall be installed in any water**  
21 **supply well at the time of pump installation, pump repair or pump replacement in the**  
22 **following areas (See Figures 200-4, 200-5 and 200-7):** *(Plus figure for pitless application)*

23

24

25

26

27

28

1. **Pete's Mountain Area of Clackamas County (See OAR 690-200-0028(2)).**
2. **Eola Hills Ground Water Limited Area of Polk and Yamhill Counties (See OAR 690-200-0028(3)).**

New language is in bold and underlined. **Example**

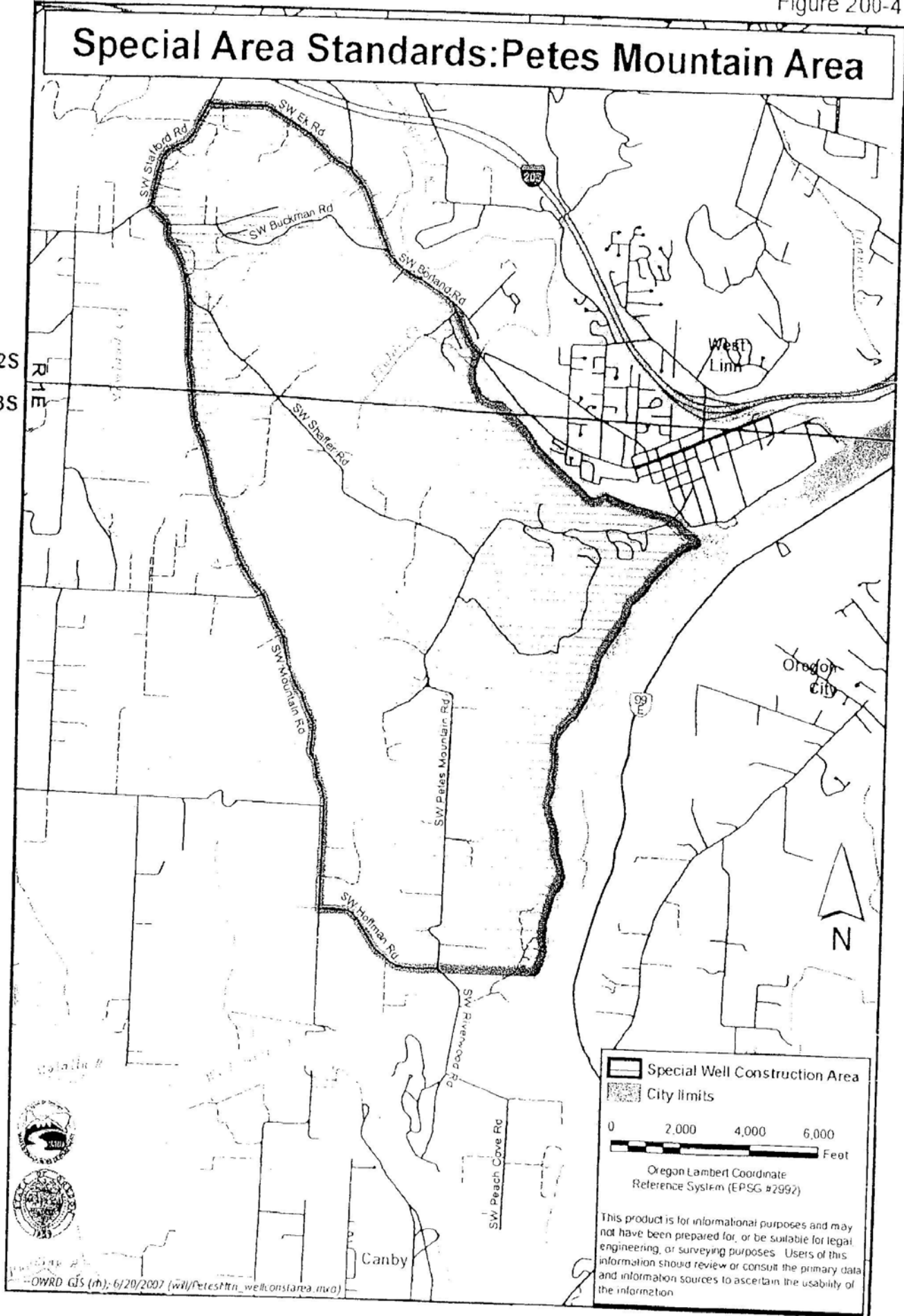
All italicized text in brackets *[example]* is proposed to be removed

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# Special Area Standards: Petes Mountain Area

T2S  
T3S



Special Well Construction Area  
 City limits

0      2,000      4,000      6,000  
 Feet

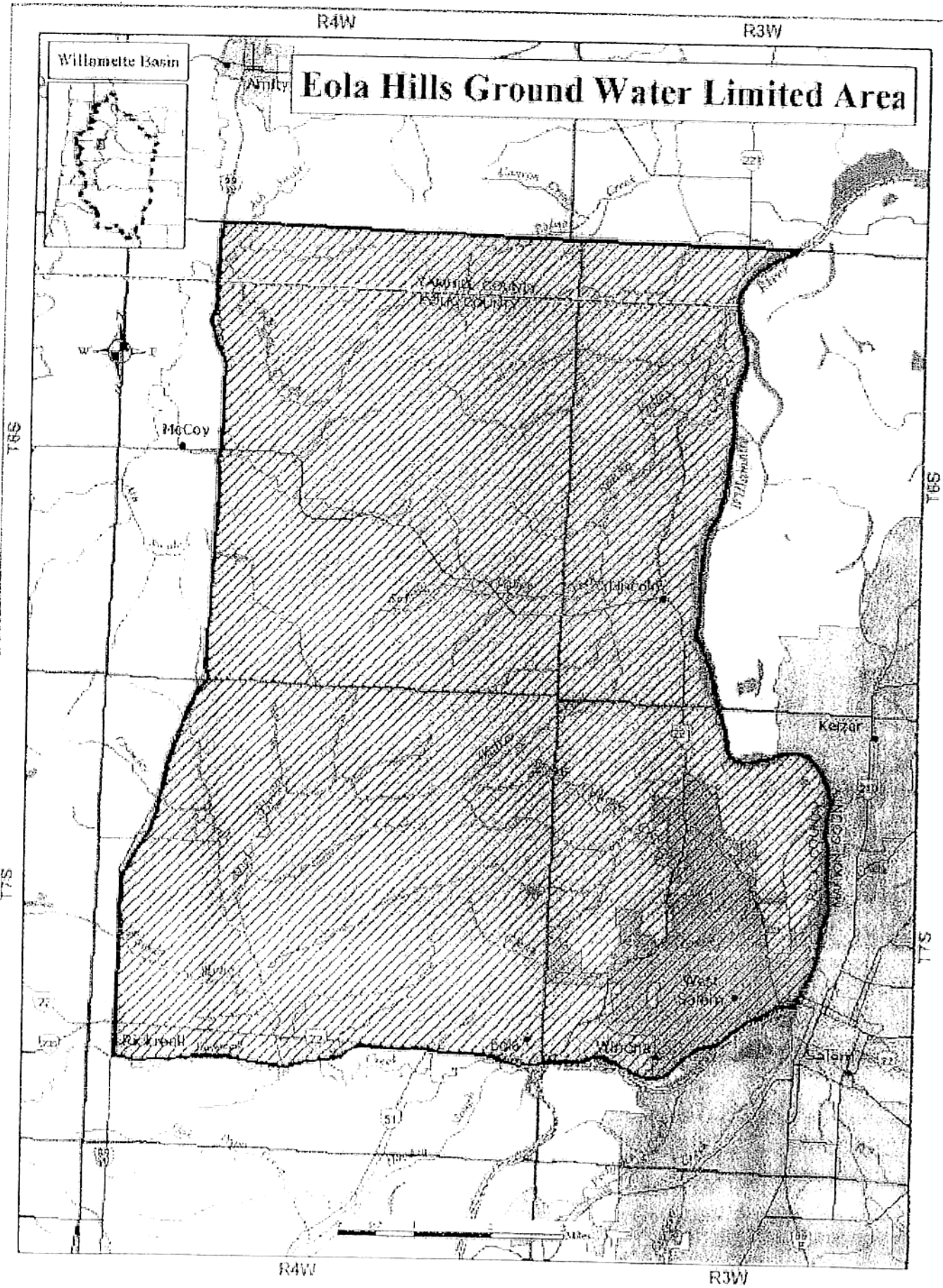
Oregon Lambert Coordinate  
 Reference System (EPSG #2992)

This product is for informational purposes and may not have been prepared for, or be suitable for legal engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information.



Special Area Standards

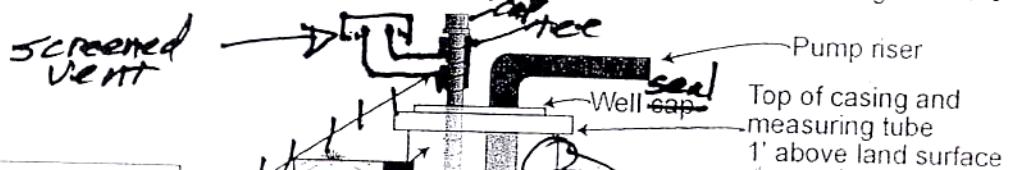
OAR 690-200-0028



Provide another drawing for pitless installations.

### Measuring Tube Diagram and Specifications

Figure 200-5



#### Minimum Specifications for Measuring Tube

- Vented above and below well cap with at least six  $\frac{1}{8}$ "- $\frac{1}{4}$ " diameter holes
- If well has a pitless adaptor, the measuring tube terminates within 6 inches of the top of well casing.

- Measuring tube nominal 3/4 inch diameter, <sup>minimum</sup> schedule 40 PVC. <sup>minimum</sup> Pipe must have minimum  $\phi 7$ " ID from top to bottom.
- Attached to pump column at 20-foot intervals with 1" wide 10 mil plastic tape,  $\frac{1}{2}$ " wide stainless banding, or stronger attachment device.

- Perforation / Screen
  - Lower 5 feet 0.020 - 0.050 inch machine-slotted well screen or
  - Lower 5 feet extensively perforated with  $\frac{1}{8}$  inch holes
- Extends to top of pump

- Plug or cap (may have  $\frac{1}{4}$ " maximum diameter hole)

Show wall same as below

Surface Well seal don't show seal - 2 inside casing

\*or don't show surface seal at all.

22

This diagram details the recommended minimum standards for a dedicated measuring tube. A measuring tube may be constructed in a manner that exceeds these standards without prior Department approval. The dedicated measuring tube shall not be <sup>have no sharp inside edges or reduction</sup> made in size over the length of the pipe and shall remain free from wires or any other obstruction. Do not crush the tube with ties or otherwise - maintain minimum  $\phi 7$  inch diameter clearance throughout the ID of the tube.



Charles E Shier  
3365 Oak Grove Rd.  
Rickreall, OR 97371

February 22, 2008

To: Water Resources Department  
Re: Eola Hills Ground Water Area

Your proposed administrative rules for Eola Hills were made for the specific purpose of those who want to develop the west hills.

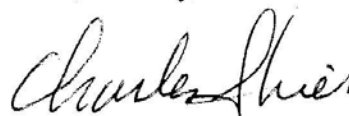
If this group applies and is granted new well construction to supply water for development of houses, how many 700 ft. or deeper wells will be needed? The more wells drilled, the faster the aquifer will be depleted.

The impact to landowners who are west and east below the hills, that have wells that are 100 ft. or less, will take the full impact of the water lost by lower aquifers, because of heavy pumping to the developments proposed.

Why are you not proposing that these developers look for alternative water sources? Have you taken into account global warming?

It seems to me that it is all cut and dried to go forward with the development.

Respectfully,



Charles Shier

**RECEIVED**

FEB 26 2008

WATER RESOURCES DEPT  
SALEM, OREGON



---

150 N. Main ~ P.O. Box 112 ~ Banks, Oregon 97106  
503-324-2361 ~ Fax 503-324-2203 ~ CCB# 103897  
www.precisionpump.net

Date: March 8, 2008

From: Tim Weaver  
PO Box 112  
Banks, OR 97106

To: Water Resources Department  
725 Summer Street NE, Suite A  
Salem, OR 97301-1271

Attn: Rule Coordinator

Fax: 503-986-0903

e-mail: [rule-coordinator@wrp.state.or.us](mailto:rule-coordinator@wrp.state.or.us)

Please find my comments herein related to the proposed rules establishing special area standards for well construction and maintenance in the Eola Hills Ground Water Limited Area of Polk and Yamhill Counties and in the Petes Mountain Area in Clackamas County.

I find the proposed requirement of installing measuring tubes into every new well, exempt or non-exempt in the above area to be an unnecessary financial burden to land owners, difficult to accomplish with items currently manufactured and see it as a "test" for adding as a requirement to all new wells in the future.

To my knowledge there is not a sanitary well seal manufactured today that is ready to accept a 3/4" measuring tube. I assume you have researched these items and have found that currently all well seals have a 1/2" vent hole, threaded on the top plate and an open hole through the rubber seal and bottom plate. Although one might assume that these openings can be drilled out and tapped to accommodate a 3/4" flow tube, who now accepts the liability that the well seal has lost some strength integrity and potential sealing ability?

Most of the wells being drilled in the above listed area will be 6" diameter wells. These wells may have a 4" PVC liner in them. Depending on the depth and flow rate of the pump, 2" drop pipe and check valves are a good possibility, along with large wire. Things are going to be very tight, especially with a 4" liner. With that scenario, a 6" well

seal with an opening for the 2" galvanized pipe, 1" threaded opening for wire, and now a 3/4" threaded opening doesn't leave much metal for strength. A well seal is the item supporting all of the weight of the drop pipe full of water, wire, pump, check valves and not the flow tube. I know that my Company Policy will be that we will not alter the well seal and assume the liability of becoming the well seal manufacturer since the well seal was used in a manner not intended by the actual well seal manufacturer.

As for the size and type of the pipe proposed for the measuring tube, is 3/4" Sch. 40 the only pipe to be used, or just the minimum size? What about 3/4" class 200 pipe or Sch. 80 pipe?

How many perforations in the 20' lower section is enough? Isn't 20' excessive since this is a measuring tube not a flow tube?

Why do we need to attach the measuring tube every 10 feet when the actual length of drop pipe is typically 20' or 21'?

We typically conduct two or more flow tests every week. I am aware that some wells do not have any access and even with good access, are sometimes difficult to get a static water level reading on. And yes we do lose the weights and end of the test probe on a rare occasion. It does trouble me that for the few times this actually happens it is felt that we need to install a measuring tube in every well. It seems that enforcing the current requirement that every well needs an access port would be enough. Does the water level in every well have to be checked? Should every landowner be required to spend the additional money on a flow tube or should those individuals or enforcement agencies needing the information install flow tubes in selected wells in the area? **Is every new well really going to be tested?**

What is the relevance of obtaining these static water level readings, and how will the information be used? A static water level reading is just a snapshot of the well and since wells are seasonal, will that be taken into consideration? Do we know how long the well has been idle before the test? If a landowner doesn't want any new neighbors, would they tell the truth about how long the well has been idle?

My last point is the potential for this new requirement being moved to a state wide basis. Most all rules never go away, are seldom reduced and usually are expanded or in this case their boundaries expanded.

Thank you for accepting this written testimony. If anyone would like to contact me to discuss my comments, feel free to do so!



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JAN 29 2008

**WATER RESOURCES DEPT  
SALEM, OREGON**

**FRIENDS OF CLACKAMAS COUNTY**

28696 S. CRAMER RD. MOLALLA, OREGON 97038

PH. 503-651-2463 FAX 503-651-3882

February 1, 2008

Juno Pandian  
Oregon Water Resources Department

Dear Ms Pandian:

Friends of Clackamas County would like to add our support to the OWRD proposal for Pete's Mountain Special Well Construction Standards. The addition of measuring tubes will enable homeowners and regulators to gather needed information about their limited ground water resources. We recognize that this new standard applies only to Pete's Mountain, but that it may serve as a trial for possible application in other locations across the state.

We support your efforts and wish you success in the upcoming public hearings.

Sincerely,

Jim Gilbert  
Chair, Friends of Clackamas County



FRIENDS OF CLACKAMAS COUNTY

28696 S. CRAMER RD. MOLALLA, OREGON 97038

PH. 503-651-2463 FAX 503-651-3882

January 25, 2008

Juno Pandian  
Oregon Water Resources Department

Dear Ms Pandian:

Friends of Clackamas County would like to add our support to the OWRD proposal for Pete's Mountain Special Well Construction Standards. The addition of measuring tubes will enable homeowners and regulators to gather needed information about their limited ground water resources. We recognize that this new standard applies only to Pete's Mountain, but that it may serve as a trial for possible application in other locations across the state.

We support your efforts and wish you success in the upcoming public hearings.

Sincerely,

Jim Gilbert  
Chair, Friends of Clackamas County

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**JAN 29 2008**

**WATER RESOURCES DEPT  
SALEM, OREGON**

**Juno Pandian**

---

**From:** Elaine [corrie\_newland@yahoo.com]  
**Sent:** Friday, February 01, 2008 9:44 AM  
**To:** Juno Pandian; Doug Woodcock  
**Cc:** John and Judy Messner; Christine Thum Schlessner  
**Subject:** Well Standard's Pete's Mountain  
**Attachments:** 1718352383-FarWest CPO letter to OWRD re well standards[1].doc

Juno and Doug, attached is a letter from the Far West CPO in support of the Special Well Standards for Pete's Mountain area.

---

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February 1, 2008

Oregon Water Resources Department

Director Phillip Ward

725 Summer Street NE, Suite A

Salem, OR 97301-1271

cc. Juno Pandian

RE: Special Area Well Construction Standards for Pete's Mountain Area

Dear Director Ward,

The Far West CPO would like to add our support to the OWRD proposal for Pete's Mountain Special Area Well Construction Standards. We are aware of the difficulty measuring water levels in these deep basalt wells and we welcome your careful approach to the issue of the lack of reliable and verifiable water level data on deep wells in basalt aquifers. At present, there are doubts if the one current well data that OWRD uses from this area is reliable as stated in the well log comments. (CLAC50840)

We understand your proposal calls for measuring tubes to be installed in all new wells and in existing wells when the pump is extracted for maintenance. Pump installers, OWRD staff or even home owners with proper training can obtain water level measurements and report them to the OWRD, as needed.

Accurate well depth measurements from many wells across Pete's Mountain are essential to understanding that area's water limitations, declining waterlevels and potential well interference. As more wells are added and pumps reinstalled, well data in the area will continue to improve. ORWD and Clackamas County will be able to make informed decisions since this area will have pressures to build. We hope the Pete's Mountain Special Area Well Construction Standards, once implemented, may serve as a model for other communities with similar measurement problems.

Sincerely,

Sparkle Anderson, President of Far West CPO

(Pete's Mountain, Stafford and Wilsonville area of Clackamas County)

PETER D. MOHR  
ATTORNEY AT LAW

*Admitted in Colorado  
and Oregon*

ONE SW COLUMBIA ST., SUITE 1110  
PORTLAND, OR 97258  
TEL 503.221.5222  
FAX 503.227.7829  
WWW.MOHRWATER.COM

March 6, 2008

**Via e-mail / Original by U.S. Mail**

Water Resources Department  
725 Summer Street NE, Suite A  
Salem, OR 97301-1271  
Attn: Rule Coordinator  
rule-coordinator@wrđ.state.or.us

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MAR 10 2008

**WATER RESOURCES DEPT  
SALEM, OREGON**

**Re: Proposed Administrative Rules / OAR Chapter 690 Division 200, 210, and 215 / Public  
Comment by PMHA**

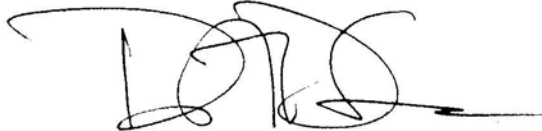
Dear Rule Coordinator:

On behalf of the Petes Mountain Homeowners Association (PMHA), I am writing to provide public comments to the above-referenced proposed changes to OAR Chapter 690, Divisions 200, 210, and 215.

Having previously confirmed that certain typographical errors have already been addressed, the PMHA is in support of the rules as proposed. That said, the PMHA does continue to possess previously stated concerns about how compliance for the Department's purposes will in the *first* instance fall on affected landowners rather than on the pump installers. As a result, upon any subsequent approval of the rules as now proposed, the PMHA would request that it be consulted by the Department regarding the future development and pursuit of any outreach efforts to best ensure the completion of appropriate notice to its members.

Finally, the PMHA wishes to express its appreciation for the efforts made by the Department in promulgating these rules changes.

Sincerely,



Peter D. Mohr

cc: PMHA

TO: Water Resources Department

Date: March 7, 2008

725 Summer Street NE, Suite A

Salem, OR 97301-1271

ATTN: Rule Coordinator

Fax: 503-986-0903

e-mail: [rule-coordinator@wrd.state.or.us](mailto:rule-coordinator@wrd.state.or.us)

FROM: Ryan Shelby #10513  
(name)

2828 Tree Top Ln  
(mailing address)

West Linn, OR 97068  
(city, state, zip)

Please find my comments herein related to the proposed rules establishing special area standards for well construction and maintenance in the Eola Hills Ground Water Limited Area of Polk and Yamhill Counties and in the Petes Mountain Area in Clackamas County.

Isn't a "Probe Tube" just a "Piezo".

There was a lot of discussion of universal terminology within the industry.

Why not just use a V-wire Piezo? This would eliminate concerns about available annulus.

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MAR 11 2008

Signature: \_\_\_\_\_ WATER RESOURCES DEPT  
SALEM, OREGON

(Note: Letters or other materials expressing your opinion need not be typed, but should be legible.)

1 [ED. NOTE: Tables and Figures referenced are available from the  
2 agency.]

3 Stat. Auth.: ORS 536.027, ORS 536.090 & ORS 537.505 - ORS 537.795

4 Stats. Implemented: ORS 536.090 & ORS 537.505 - ORS 537.795

5 Hist.: WRD 7-1988, f. & cert. ef. 6-29-88; WRD 8-1993, f. 12-14-93, cert.

6 ef. 1-1-94; WRD 7-2001, f. & cert. ef. 11-15-01

7 **690-200-0028**

8 **Designated Special Area Standards**

9 (1) Special Area Standards for the Construction and Alteration of Water  
10 Supply Wells in the Lakeview Area.

11 (A) As used in this rule and illustrated in Figure 200-3, "The Lakeview  
12 Area" includes the area located in Sections 4, 5, 8 and 9 of Township 39  
13 South, Range 20 East of the Willamette Meridian, Lake County, Oregon.  
14 Beginning at a point on the West line of Section 4, said point bears South  
15 1 40' 45" East - 2245.31 feet from the Northwest Corner of Section 4;  
16 thence South 89 54' 45" East- 1907.04 feet to the West right of way line of  
17 the Fremont Logging Road; thence South 39 26' 40" East along the West  
18 right of way line of the Fremont Logging Road - 3095.16 feet; thence  
19 South 1 53' 14" East - 617.32 feet to the South line of Section 4; thence  
20 continuing in Section 9 - South 00 13' 8" West parallel to the North South  
21 centerline of Section 9 - 2649.14 feet to the East West centerline of  
22 Section 9; thence South 89 45' 31" West along the East West centerline of  
23 Section 9 - 3782.55 feet more or less to the West line of Section 9; thence  
24 West along the East West centerline of Section 8 - 1320.00 feet more or  
25 less to the center East 1/16 corner of Section 8; thence North 2640.00 feet  
26 more or less to the East 1/16 corner common to Sections 5 and 8; thence  
27 North 1 41' 33" West - 2630.48 feet more or less to the center East 1/16

New language is in bold and underlined: **example**

All italicized text in brackets [*example*] is proposed to be removed

**February 1, 2008 Hearing Draft**



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## Skyles Drilling, Inc.

1169 Molalla Ave.

Oregon City, Oregon 97045

503-656-2683

[skylesdrilling@opusnet.com](mailto:skylesdrilling@opusnet.com)

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MAR 11 2008

WATER RESOURCES DEPT.  
SALEM, OREGON

March 8, 2008

Water Resources Department  
725 Summer St. NE, Suite A  
Salem, OR 97301-1271

Attention: Rule Coordinator

RE: Eola Hills Ground Water Limited Area of Polk and Yamhill Counties and in the Petes Mountain area in Clackamas County and General Concerns.

- 1) In basalt drilling requiring casing within 100 feet of the bottom of the well. We don't complete the drilling of the well until after the casing and seal are installed. We don't know how deep the aquifer might be below the casing. It's not realistic to require casing within 100 feet of bottom of well.
- 2) The measuring tube should not be required to be bigger than what has worked in the past. All access holes on the well seals are 1/2 inch. I request a change to 1/2 inch pipe for the measuring of the s.w.l.
- 3) The bottom perforations on the measuring tube don't need to be more than 5 feet with 1/8 to 1/4 inch holes.
- 4) Wells that need casing extension should not be required to bring seal up to current standards when there is no problem with contamination. I have explained the requirement "rule" to the customers and in all cases they have elected to leave the casing below ground level. Before this rule, we were able to correct this potential problem of contamination.

Thank you,

Steven C. Bland  
License #1592  
Skyles Drilling, Inc.

SCB/kw