

Setbacks to Hazards



OHA Drinking Water Services
Survey Training Webinar
October 18, 2018



DRINKING WATER SERVICES
Public Health Division

Setbacks to hazards- overview

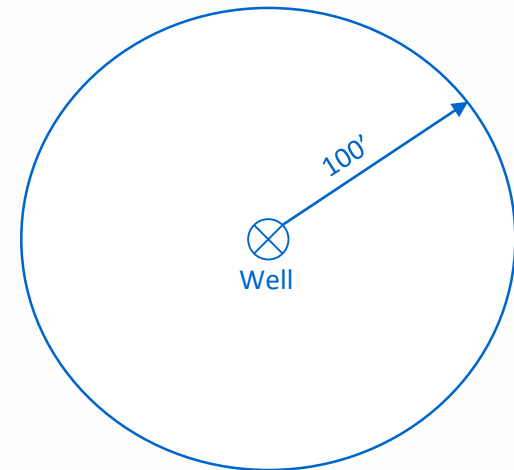
- Where you'll see them pop up
- What it means for water systems
- What to do about them

Setbacks to hazards in rules

- Sanitary survey rules (-0076)
- Also construction standard rules (-0050)
 - (b) Groundwater Well Construction:
 - (A) Sanitary seal and casing not watertight;
 - (B) Does not meet setbacks from hazards;
 - (C) Wellhead not protected from flooding;
 - (D) No raw water sample tap;
 - (E) No treated sample tap, if applicable; and
 - (F) If well vent exists, not screened.

Ownership/radius of control

- More of a plan review issue
- Must own land around well
- Or have an easement
- Site plan during plan review
- May be waived in plan review

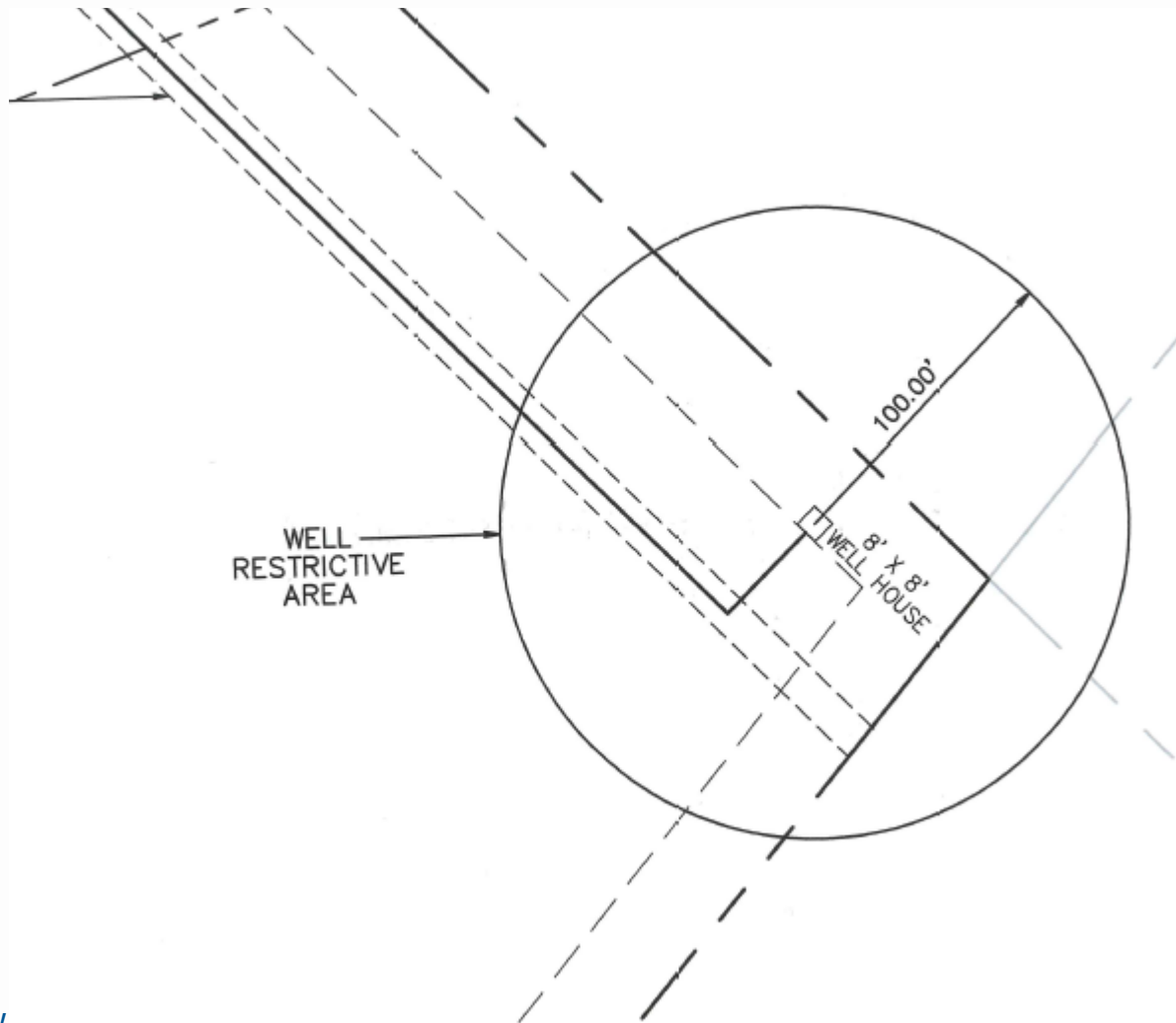


What we see during plan review

- Site plans sometimes reveal issues



What we see during plan review



What we see during plan review



DRINKING WATER SERVICES
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Oregon
Health
Authority

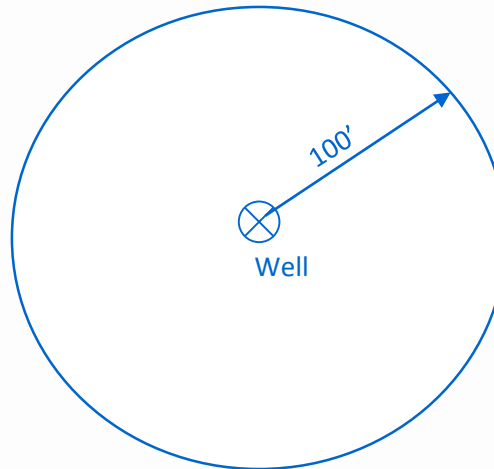
Identifying setbacks to hazards during surveys

- Wells (springs too)

● Well meets setbacks from hazards?	<input type="checkbox"/>	<input type="checkbox"/>
If no, identify list of hazard(s) within the setback and the distance to the hazard.....		
HAZARD:		<input type="text"/>
DISTANCE (ft.):		<input type="text"/>

Identifying setbacks to hazards during surveys

- Look around!
- Google Earth or Google Maps



Identifying setbacks to hazards during surveys

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

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

- Any existing or proposed pit privy
- Subsurface sewage disposal drain field
- Cesspool
- Solid Waste disposal site
- Pressure sewer line
- Buried fuel storage tank
- Animal yard, feedlot, or animal waste storage
- Untreated storm water or gray water disposal
- Chemical (including solvent, pesticides, and fertilizers) storage, usage, or application)
- Fuel transfer or storage
- Mineral resource extraction

Identifying setbacks to hazards during surveys

- All those things underground
- Animals roaming around
- Chemicals/fuel storage
- Vehicle storage
- Final resting places
- Other sanitary hazards
- Roads?



Identifying setbacks to hazards during surveys

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Identifying setbacks to hazards during surveys

- All those things underground
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- Vehicle storage
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- Other sanitary hazards
- Roads?



So you found a setback to a hazard, now what?

- File review
- Call it out
- Move it?
- Radius of control
- Waiver application
- Waiver denial

File review

- During your file review, did you find a waiver?
 - We do keep a database
 - *Maybe* someday on data online
- Call it out
- Move it?
- Radius of control
- Waiver application
- Waiver denial

Application for Waiver from Construction Standards for Public Water Systems

As Provided under OAR 333-061-0055, *The Department may grant waivers from the construction standards prescribed by these rules:*

- (a) *When it is demonstrated to the satisfaction of the Department that strict compliance with the rule would be highly burdensome or impractical due to special conditions or causes; and*
- (b) *When the public or private interest in the granting of the waiver is found by the Department to clearly outweigh the interest of the application of uniform rules; and*
- (c) *When alternate measures are provided which, in the opinion of the Department, will provide adequate protection to the health and safety of the public including the ability to produce water which does not exceed the maximum contaminant levels listed in rule 333-061-0030.*

In accordance with the above, the _____ water system, PWS ID #41 _____, hereby requests the Oregon Health Authority to waive the construction standard OAR 333-061-0050 _____

The construction standard requested to be waived is for the following project: _____

This waiver is necessary for the following reasons: _____

Proposed alternate measures to protect the health and welfare of the public in lieu of complying with the construction standards OAR 333-061-0050 will consist of: _____

CLF

Call out the deficiency

- File review
- **Call it out**
- Move it?
- Radius of control
- Waiver application
- Waiver denial

Call out the deficiency

Deficiency Summary

Inspector: Carrie Gentry
 Date Corrective Action Plan is due: December 1, 2018 County: Polk

Yes	No	Significant Deficiencies and Rule Violations:	Date to be corrected	Date corrected
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Source: <i>Well construction:</i> Does not meet setbacks from hazards (cows)	12.1.18	

☐ Source Deficiencies:

Well Construction Deficiencies:

- ☐ ⊕ Sanitary seal and casing not watertight
- ☒ ⊕ Does not meet setbacks from hazards
- ☐ ⊕ Wellhead not protected from flooding
- ☐ ⊕ No raw water sample tap
- ☐ ⊕ No treated sample tap (if applicable)
- ☐ ⊕ No screen on existing well vent

Well Information

Source ID#: SRC-	AA		
Source Name:	Well #1		
Well log available?*	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	
Well log ID (e.g., COLU123, L12345)	L12345		
	Yes No	Yes No	
Well active?	<input checked="" type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	
Pitless adaptor?	<input type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	
● Sanitary seal & casing watertight?	<input checked="" type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	
● Raw water sample tap?	<input checked="" type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	
● Treated water sample tap? <input checked="" type="checkbox"/> N/A	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	
● If vented, properly screened?	<input checked="" type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	
● Wellhead protected from flooding?	<input checked="" type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	
Concrete slab around casing?	<input checked="" type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	
Casing height \geq 12-in. above slab/grade?	<input checked="" type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	
Flowmeter?	<input checked="" type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	
Pressure gauge?	<input checked="" type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	
Pump to waste piping?	<input checked="" type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	
● Well meets setbacks from hazards?	<input type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	
If no, identify list of hazard(s) within the setback and the distance to the hazard.....	Cow		
HAZARD:			
DISTANCE (ft.):	20		

Call out the deficiency

- Template language for cover letter language in procedure

The significant deficiencies and rule violations noted are as follows:

1. **Wells do not meet setbacks from hazards.** Oregon Administrative Rules that cover water system surveys and construction standards require that groundwater sources meet setbacks from hazards. Cows exist within the required 100 foot setback radius of Well #1.

Potential contaminant sources that can be moved must be kept out of the 100 foot setback area at all times (e.g., animals no longer allowed to pasture around well or fencing around well provided). Removal of the hazard is considered correction of the significant deficiency.

For potential contaminant sources that cannot be easily moved, the water system can apply for a waiver of the construction standards. A construction standard waiver form is attached (also available [online](#)). In order for a waiver to be approved, an evaluation of the source by a Drinking Water Services (DWS) hydrogeologist must determine that the source is adequately constructed and in a confined aquifer or equivalent with low/moderate susceptibility.

Move the hazard?

- File review
- Call it out
- Can they move the hazard?
 - If so, yay! Deficiency corrected!
 - In the case of cows, fence them out
- Radius of control
- Waiver application
- Waiver denial



Radius of control

- File review
- Call it out
- Move it?
- Often you'll run into radius of control issues
 - May not own the 100' radius
 - We want them to try to get an easement
- Waiver application
- Waiver denial

Waiver

- File review
- Call it out
- Move it?
- Radius of control
- If they can't move the hazard, apply for waiver
- Waiver denial

Waiver form location

Plan Review

Drinking Water Services

Plan Review

Contact Us

Resources

On this page:

- [Fee Schedule](#)
- [Land Use Statement](#)
- [Plan Review Information Packages](#)
- [Plan Review Exemption](#)
- [Waiver from Construction Standards](#)
- [UV, Membrane, & Cartridge/Bag - Verified Models](#)

Waiver form – key points

Application for Waiver from Construction Standards for Public Water Systems

As Provided under OAR 333-061-0055, *The Department may grant waivers from the construction standards prescribed by these rules:*

- (a) When it is demonstrated to the satisfaction of the Department that strict compliance with the rule would be highly burdensome or impractical due to special conditions or causes; and*
- (b) When the public or private interest in the granting of the waiver is found by the Department to clearly outweigh the interest of the application of uniform rules; and*
- (c) When alternate measures are provided which, in the opinion of the Department, will provide adequate protection to the health and safety of the public including the ability to produce water which does not exceed the maximum contaminant levels listed in rule 333-061-0030.*

Waiver process – form #2

- County/Ag staff will need to submit a well evaluation form
- Look under “coliform resources”

Waiver process – form #2

County & Dept. of Agriculture Resources
Oregon Drinking Water Services

[Environmental Public Health](#) > [Drinking Water](#) > [County & Dept. of Agriculture Resources](#) > [Coliform Resources](#)

Coliform Resources

Drinking Water Services

**County & Dept. of Agriculture
Resources**

Water System Surveys

Conferences and Training

Document Library

Inventory Updates

EPA Staff Resources

Coliform Resources

Monitoring Resources

Compliance Resources

Contact Us

The information on this page is design
Agriculture partners who have special
questions regarding this material plea

On this page:

- Coliform Monitoring Resources
- Groundwater Rule procedures follow
- Resources for addressing confirmed
- Representative and combined sou





The Groundwater Rule (GWR), which took effect in 2002, requires public water utilities to monitor for and, if necessary, treat for contaminants in public water systems. The primary public water systems are those that regularly supply water to at least 15 connections or serve at least 15 people. The rule requires public water systems to monitor for *E. coli* and other fecal coliform bacteria. If a public water system is found to be fecally contaminated, or a significant deficiency is found, the system must take corrective action to assure that the water is safe to drink. The rule also requires public water systems to implement the rule.

Coliform Monitoring Resou

As of April 1, 2016, a detailed investigation

Waiver process – form #2

Resources for addressing confirmed *E. coli*-positive sources under the Groundwater Rule

-  [Confirmed *E. coli* Positive Source Procedure](#): Guidance for the groundwater source evaluation process. Ensures that the proper corrective action is implemented after *E. coli* has been confirmed in the source.
 - Appendix I: Monitoring Following Removal of Temporary Sources of Fecal Contamination (not yet available)
 -  [Appendix II: Ongoing Verification that PWS is Meeting Compliance Monitoring Requirements](#)
-  [Response Flow Chart for *E. coli* Contaminated Groundwater Source](#) - This flow chart helps show what protocols shall be taken following *E. coli* confirmed in a groundwater source
-  [Source Evaluation Request Form](#): Use this fillable document to request an evaluation of the well by the DWS Regional Hydrogeologist.



Waiver process – form #2

- Work with your Tech Staff contact to fill this out

GROUNDWATER SOURCE EVALUATION REQUEST OHA – Drinking Water Services

Background Information:

Requested by: _____ Date of Request: _____
County: _____
System Name: _____ PWS ID #: 41 _____
Source Name: _____ Entry Point/Source ID: _____

Water Source Location:

Lat: _____ Long: _____ (☐ Handheld GPS ☐ Google)
Property Address: _____

Waiver process

- Both forms are sent to your Tech Staff person
- That person enters it into our tracking database
 - They send form #2 to a geologist in Springfield
- Geologist evaluation will determine whether source is adequately constructed
 - In a confined aquifer?
 - Equivalent with low/moderate susceptibility
- Your Tech staff person will coordinate with a manager to get the waiver signed

Waiver process

- Approved waiver? Great!
- Give system a copy of the waiver form
 - Deficiency is considered to be corrected

What if the waiver is denied?

- File review
- Call it out
- Move it?
- Radius of control
- Waiver
- And what if no waiver is possible?
 - Still provide them with a copy of the waiver form
 - You'll need to notify them that we denied it
 - Unresolved deficiency, no violation
 - Mark as a deficiency in future surveys
 - System can't qualify as an outstanding performer
 - Standard language in procedure

Questions?



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