Setbacks to Hazards

OHA Drinking Water Services
Survey Training Webinar
October 18, 2018
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

[Diagram showing a well and a restrictive area around it.]

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Public Health Division
What we see during plan review
Identifying setbacks to hazards during surveys

• Wells (springs too)

- Well meets setbacks from hazards? ........

  If no, identify list of hazard(s) within the setback and the distance to the hazard..........................

  HAZARD:

  DISTANCE (ft.):
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

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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: ________________________________

__________________________________________________________________________________________
Call out the deficiency

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

## Deficiency Summary

**Deficiency Summary**

- **Deficiency:**
  - **Source:**
    - **Well construction:**
      - Does not meet setbacks from hazards (cows)

- **Date to be corrected:** 12.1.18

## Source Deficiencies:

**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
<table>
<thead>
<tr>
<th>Source ID#: SRC-</th>
<th>AA</th>
<th>Source Name:</th>
<th>Well #1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Well log available?*</td>
<td>N</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Well log ID (e.g., COLU123, L12345)</td>
<td>L12345</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Well active?</th>
<th>No</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pitless adaptor?</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>

- Sanitary seal & casing watertight? | No | Yes | No |
- Raw water sample tap? | Yes | No | Yes | No |
- Treated water sample tap? | N/A | Yes | No | Yes |
- If vented, properly screened? | Yes | No | Yes | No |
- Wellhead protected from flooding? | Yes | No | Yes | No |
- Concrete slab around casing? | Yes | No | Yes | No |
- Casing height ≥12-in. above slab/grade? | Yes | No | Yes | No |
- Flowmeter? | Yes | No | Yes | No |
- Pressure gauge? | Yes | No | Yes | No |
- Pump to waste piping? | Yes | No | Yes | No |

- Well meets setbacks from hazards? | Yes | No | Yes | No |

If no, identify list of hazard(s) within the setback and the distance to the hazard:

HAZARD: Cow
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:

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(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

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

<table>
<thead>
<tr>
<th>Background Information:</th>
<th></th>
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<tbody>
<tr>
<td>Requested by:</td>
<td></td>
</tr>
<tr>
<td>County:</td>
<td></td>
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<tr>
<td>System Name:</td>
<td></td>
</tr>
<tr>
<td>Source Name:</td>
<td></td>
</tr>
<tr>
<td>Date of Request:</td>
<td></td>
</tr>
<tr>
<td>PWS ID #: 41</td>
<td></td>
</tr>
<tr>
<td>Entry Point/Source ID:</td>
<td></td>
</tr>
</tbody>
</table>

**Water Source Location:**

- Lat: _____
- Long: _____
- [ ] Handheld GPS
- [ ] Google
- Property Address: _____

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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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