

Memorandum

To: Public Distribution, OWRD Website
From: Justin Iverson, Groundwater Section Manager
Date: March 31, 2021 (original publication February 17, 2021)
Regarding: Groundwater Well Interference Complaint Process

This memorandum describes the Department's process for receiving, investigating, and responding to groundwater well interference complaints.

BACKGROUND: WHAT IS GROUNDWATER WELL INTERFERENCE?

Hydraulic interference is a scientific term that refers to the drawdown of groundwater levels at a well due to the cone of depression created by another nearby well pumping groundwater from the same aquifer (see figure below). In some cases, hydraulic interference from a neighboring well may affect your ability to produce an adequate supply of water for an intended use. Your ability to produce water may also be limited by the natural properties of the aquifer, or due to issues with your pump or well construction. The Department's [water well handbook](#) has more information regarding how a well works and many other practical matters.

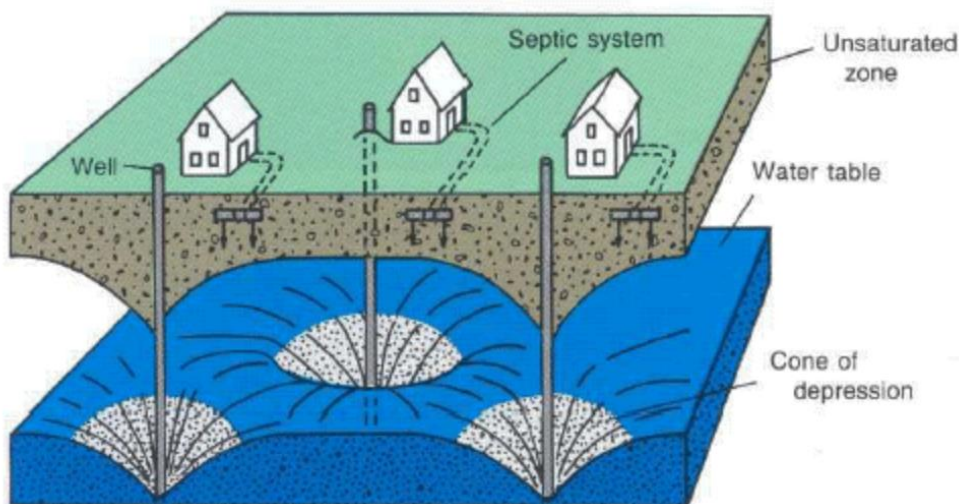


Figure source:
U.S. Geological
Survey online
publication,
[Groundwater and
the Rural
Homeowner](#)

“*Substantial or Undue Interference*” is a legal term found in the Oregon water law ([OAR 690-008-0001\(8\)](#)) and is defined as “...the spreading of the cone of depression of a well to intersect ... another well, or the reduction of the ground water gradient and flow as a result of pumping, which contributes to: ...*(c)* One or more of the senior ground water appropriators being unable to obtain either the permitted or the customary quantity of ground water, whichever is less, from a reasonably efficient well that fully penetrates the aquifer where the aquifer is relatively uniformly permeable.” The Department must find substantial or undue interference before it can act on a well interference complaint.

HOW TO FILE A WELL INTERFERENCE COMPLAINT WITH THE DEPARTMENT

If you believe your well is subject to substantial or undue interference from a junior groundwater user (a well with a more recent priority date, or a more recent well construction date in the case of exempt use wells), you may file a well interference complaint with the local Watermaster ([locate your local Watermaster](#)). The Department’s [Water Rights in Oregon Booklet](#) describes the prior appropriation water rights system and priority dates. The Watermaster or their staff will collect the necessary information on a standard well interference complaint form (attached), make a preliminary determination, and/or identify the need for additional investigation following the Department’s standard protocol.

File a complaint with the Watermaster.

1. Obtain a well interference complaint form, attached here or available from your Watermaster.
2. Fill out as much information on the form as you are able and gather supporting documentation.
3. Schedule an office visit or phone call with the Watermaster to complete the form and discuss your complaint.
4. The Watermaster will use this information to determine whether the complaint indicates 1) the potential for “substantial or undue interference,” or 2) more general concern(s) regarding the status of the aquifer (e.g., falling water levels, groundwater quality issues, observed new well construction in the area, drought, etc.) that may have negative impacts on the claimant’s ability to use the well for its intended purpose now or in the future.
5. The Watermaster will enter information into the Department’s Field Activities Database for tracking purposes and will inform the claimant (either verbally or in writing) if there will be follow-on actions:
 - a. If the Department determines that the complaint indicates the potential for “substantial or undue interference” then the Watermaster will investigate further.

- b. General concerns will be logged in the Field Activities Database, but will likely not result in follow-on action from the Watermaster. If well performance issues are suspected, Department staff may recommend contacting a pump installer or well driller to further diagnose and address the issue.

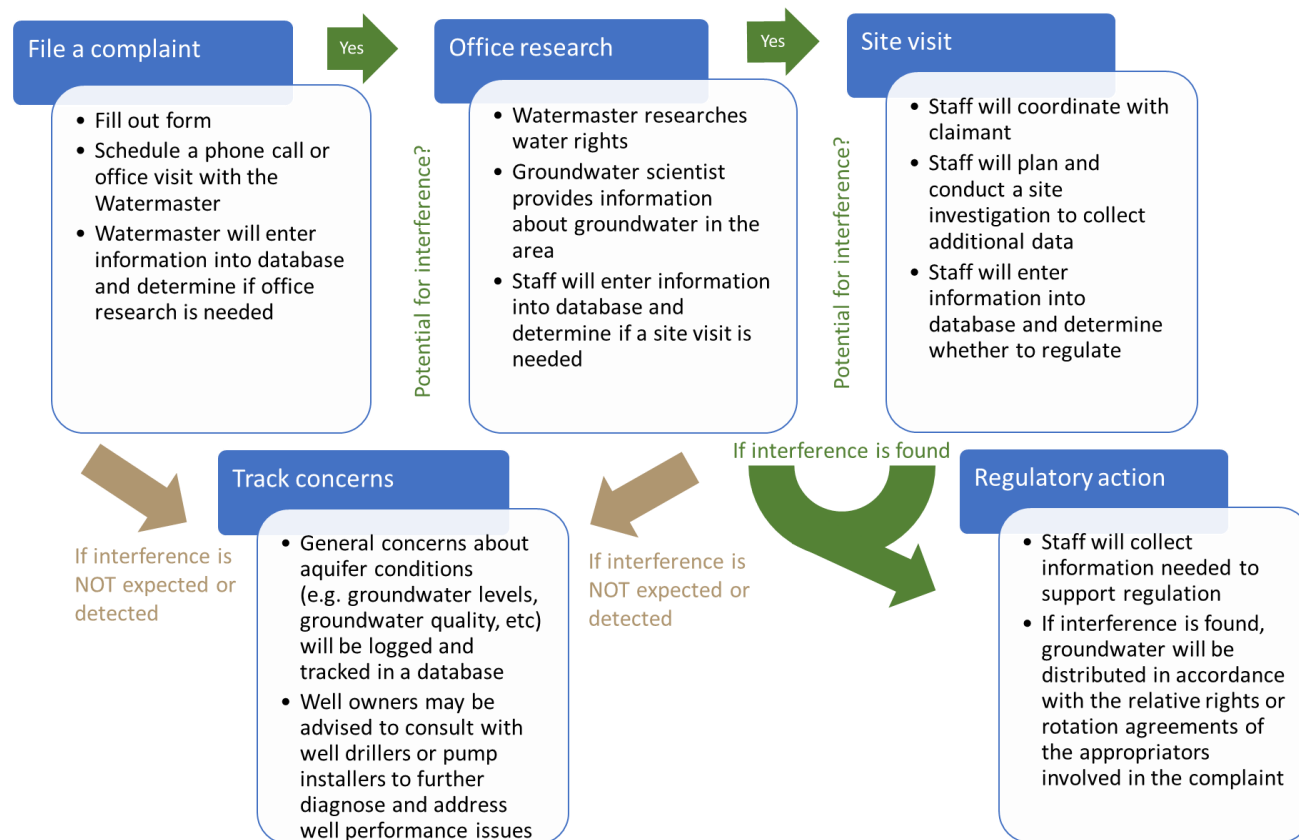


Figure 1. Well interference complaint process

HOW THE DEPARTMENT WILL RESPOND IF THERE IS THE POTENTIAL FOR WELL INTERFERENCE

If the Watermaster determines that a complaint may meet the definition of “substantial or undue interference,” their response is guided by [OAR 690-250-0110](#) Regulation of Groundwater: “(1) The watermaster shall respond to complaints based on a review of appropriate records and performance of necessary field inspections as judgement may require. The watermaster may request the assistance of a groundwater geologist. The watermaster’s response may be by oral or written communication to appropriators involved in the complaint or by personal visits by the watermaster or assistant watermaster.”

Department staff will begin by conducting office research

1. Department staff (the watermaster and groundwater scientists) will look at water rights on record as well as groundwater information in the area (e.g., geologic maps, water levels, water use records, pumping tests, etc) to assist with their determination.
2. Department staff will enter information into the Field Activities Database and will inform the claimant (verbally or in writing) if there will be follow-on actions:
 - a. If sufficient information exists to suggest that there is “substantial or undue interference,” then a site visit may be warranted (see below).
 - b. If information indicates that the well does not fully penetrate the aquifer or there are well performance issues, Department staff may recommend contacting a pump installer or well driller to further diagnose and address the issue.

Department staff may conduct a site visit depending on the outcome of the office research

1. If a site visit is warranted, the watermaster and groundwater scientist(s) will coordinate with the claimant and plan a site investigation to collect additional data.
2. Department staff will enter findings and conclusions into the Field Activities Database and will inform the claimant (verbally or in writing) if there will be follow-on actions:
 - a. If sufficient information exists to indicate that there is substantial or undue interference, then regulatory action will be taken (see below).
 - b. If information indicates that the well does not fully penetrate the aquifer or there are well performance issues, Department staff may recommend contacting a pump installer or well driller to further diagnose and address the issue.

HOW THE DEPARTMENT WILL RESPOND IF WELL INTERFERENCE IS IDENTIFIED**Regulatory action will occur if “substantial or undue interference” is found**

1. The watermaster and groundwater scientist will work together to identify, gather, and analyze any additional necessary information needed to support regulation of groundwater in response to the complaint.
2. If “substantial or undue interference” is found, groundwater will be distributed by the watermaster in accordance with the relative rights or rotation agreements of the appropriators involved in the complaint. Water users will be notified in writing.
3. Regulatory actions will be recorded in the Field Activities Database and the watermaster will perform follow-up compliance checks as time permits.



Groundwater Well Interference Complaint Form

This form is intended to be jointly completed by the local Watermaster (WM) and well owner during a scheduled office visit or phone call. The well owner may initially fill out the fields marked with an * before their meeting with the Watermaster and are encouraged to bring any supporting documents with them to the meeting. Find your local WM at www.oregon.gov/owrd/aboutus/contactus/Pages/RegionalOfficesandWatermastersDirectory.aspx

Date: _____ WM District: _____ WM Staff: _____

*Well Owner Contact Information:

Name: _____

Phone Number: _____ Cell Number: _____

Email Address: _____

Mailing Address: _____

Well & Water Right Information:

*Well Tag: L- _____ Well Log ID (e.g., HARN 99999): _____

County: _____ Township _____ N/S Range _____ E/W – Section _____, Tax Lot _____

Well Location Lat: _____ / Long: _____ (decimal degrees)

*Well Address: _____

*Power Meter s/n _____ Reading/Date/Units _____

*Flowmeter s/n _____ Reading/Date/Units _____

*Attach Map: tax lot map, Google Map, or other map showing well of interest and location of any suspected problem-causing wells

*Include other well information if no well log is available:

Depth: _____

Casing Size: _____

Date Drilled: _____

Original Owner: _____

Well Use: Exempt Use: Type (e.g., domestic, stock, etc.): _____

Permitted Use: Use Code (e.g., IR, IS, etc.): _____

Water Rights Related to Well (Permit, Cert, etc.): _____

***Complaint details** (describe the type and timing of the problem, suspected cause of the problem [as described by the well owner], any previous well problems or complaints, any past maintenance on the well, any changes to pump set depth, well deepening, etc.):

Next Steps / Resolution: