

DEPARTMENT OF
ECOLOGY
State of Washington

Tutorial

Adding and editing wells and groundwater data in
the Ecology Environmental Information
Management (EIM) System

July 2012

Ecology Publication No. 12-03-030

Adding and Editing Wells in EIM

- Editing rights in EIM are only available to Ecology staff
- Outside data submitters who need well data edited should work with an Ecology staff member to make the edits
- Well editor tools are best suited to adding or editing information for a small number of wells ($\leq 10-15$)
- Adding larger batches of wells is best done through the batch upload process
 - See batch well location upload video tutorial for more detail (Ecology Publication No. 11-03-039)
- Some important steps involved in adding and editing wells have to be completed in the editor
 - Linking to a well log, adding a supplemental log
 - Adding additional measuring points
 - Etc.

Tutorial Topics

- Using EIM map search tools to confirm your new well isn't already in EIM
- Using the EIM Well Editor to add a new well location
- Determining well X/Y/Z location information using EIM map coordinate capture tools
- Linking to a well log
- Adding a supplemental log
- Editing the attributes of a well already loaded to EIM
 - Adding/editing alias information for a well
 - Adding/editing measuring point information for a well
 - Adding new water level data
 - Editing existing water level and water quality data

Some important reminders

- A detailed discussion about the metadata requirements and standards for well locations is presented in a separate video tutorial focused on batch loading groundwater locations to EIM (Ecology Pub. #11-03-039).*
- A detailed discussion about the water level measuring point concept, including detailed examples of how to record the attributes of a measuring point on a well, is presented in a separate video tutorial focused on batch loading water level measurements (Ecology Pub. #11-03-040).*

*You can find links to these other videos (and their support files) on the EIM Groundwater Data Center home page

Some important reminders (cont.)

- Avoid Loading Duplicate Locations

- Before loading a new well, use the various search tools to confirm the well doesn't already exist in EIM, perhaps under a different name

- Best practice is to use the six-character unique state well tag ID as the **Location ID** for each of your wells

(To learn more about well tagging, including how to tag older wells that were not tagged at the time of construction, see: *Washington St. Dept. of Ecology Environmental Assessment Program; Standard Operating Procedure for Tagging Wells; EAP081.*)

- If a well you were planning to load already exists in EIM, submit your monitoring results using the existing EIM **Location ID**

- You can add your version of the well ID to the **Study Location Name** field in the results loader template spreadsheet (or in the results editor).

Adding a New Well to EIM – Summary Steps

1. Use the EIM map service to confirm the new well you plan to add doesn't already exist in the system
2. Add the new well to EIM using the Well Editor
3. If possible, link the EIM well to a Water Resources Program well log summary page
4. If appropriate, add any supplemental log images you have for the well to the Water Resources Program well log summary page
5. Once you've added the well, use the EIM Well Editor to:
 - a) add information for additional water level measuring points
 - b) add or edit information about water level measurements
 - c) edit information about water quality measurements

Start from the *Intranet* version of the Ecology Groundwater Data Center home page

<http://aww.ecology/eim/groundwater.htm>

Using the EIM search tools to confirm you're not about to
duplicate an existing well

- Start at the Intranet (Ecology staff only) version of the EIM Groundwater Data Center Home Page:

<http://aww.ecology/eim/groundwater.htm>

Entering the well attribute information for a new well

Recording elevation information for a well

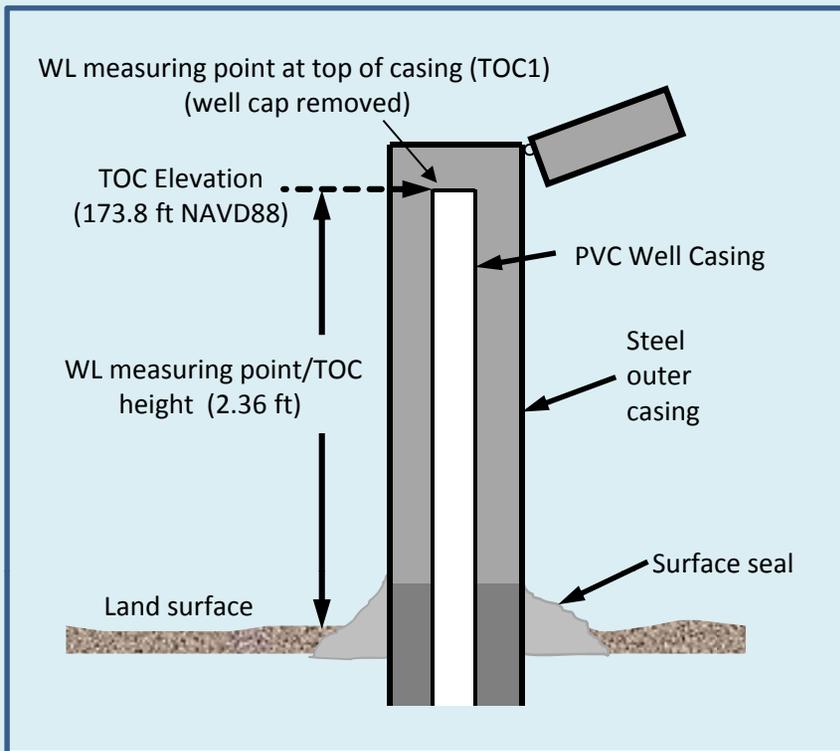
•You need to provide information about two key aspects of a well in the vertical dimension:

1. The NAVD88 elevation of one of three reference points associated with a well:
 - a. The elevation of the land surface at the well head, or
 - b. The elevation of the top of the casing, or
 - c. The elevation of the reference point you use for depth to water measurements (i.e. the water level measuring point)

AND

2. The height of the water level measuring point above land surface (if MP = TOC, this is the casing “stickup” height)

•Reporting this information allows water level depth measurements to be standardized and reported in terms of both elevation, and as depths below land surface - two industry standard units for mapping water table or potentiometric surfaces.



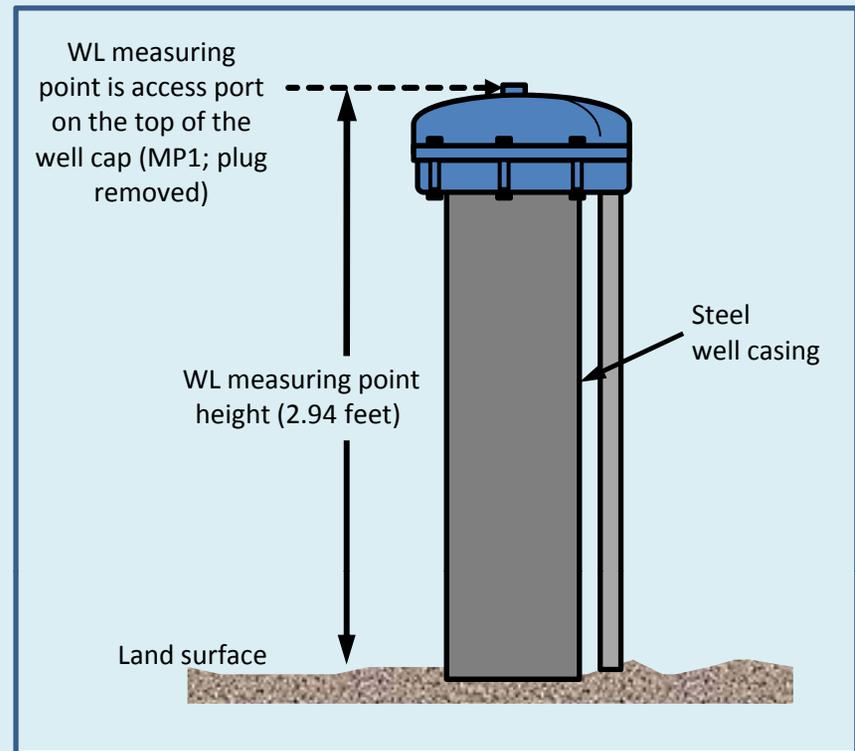
WL MP or TOC ID: TOC1

WL MP or TOC Description: Top of casing, well cap removed, black mark north side

WL MP or TOC Height: 2.36

WL MP or TOC Height Units: FT

WL MP or TOC Start Date: 4/23/2006



WL MP or TOC ID: MP1

WL MP or TOC Description: Access port on top of well cap, plug removed

WL MP or TOC Height: 2.94

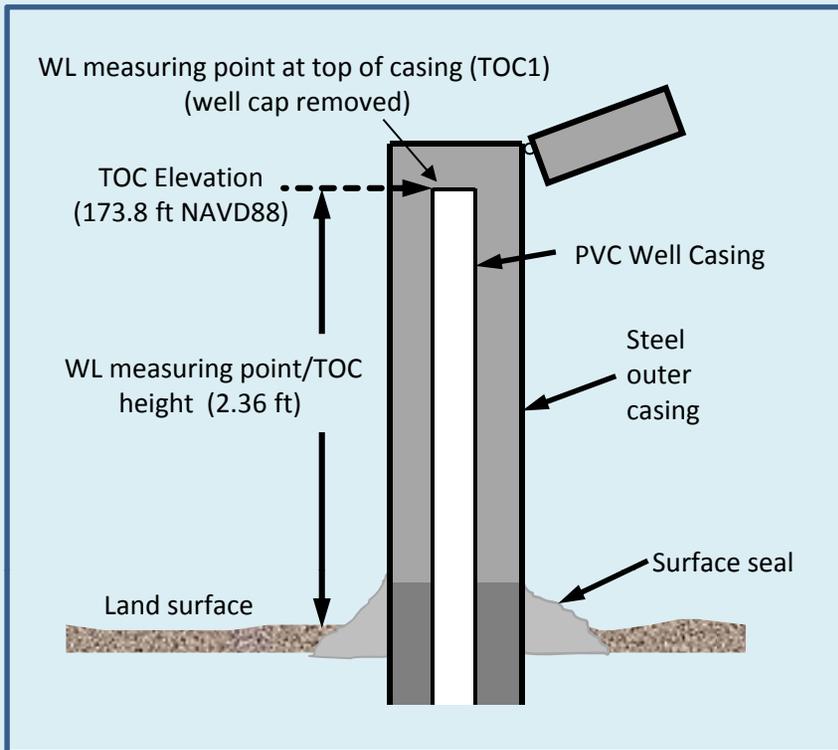
WL MP or TOC Height Units: FT

WL MP or TOC Start Date: 8/23/2006

Example Water Level Measuring Points

Converting arbitrary elevations to elevations in a standard vertical datum

- EIM will no longer accept TOC elevations for monitoring wells that use an arbitrary or “relative” site datum system.
- For example, if you establish one of your site wells as a benchmark, assign the TOC at that benchmark well with an arbitrary elevation value (e.g. 100 ft), and then survey all other site well TOCs relative to that point – the TOC elevations are precise relative to one another, but can’t be compared to well elevations on other sites
- In this type of case, you’ll need to convert those arbitrary elevations to NAVD88 elevations before submitting to EIM
- A detailed discussion about how to use the EIM map service tools to make this conversion is presented in a help document posted on the EIM Groundwater Data Center home page.
(<http://www.ecy.wa.gov/eim/groundwater.htm>)



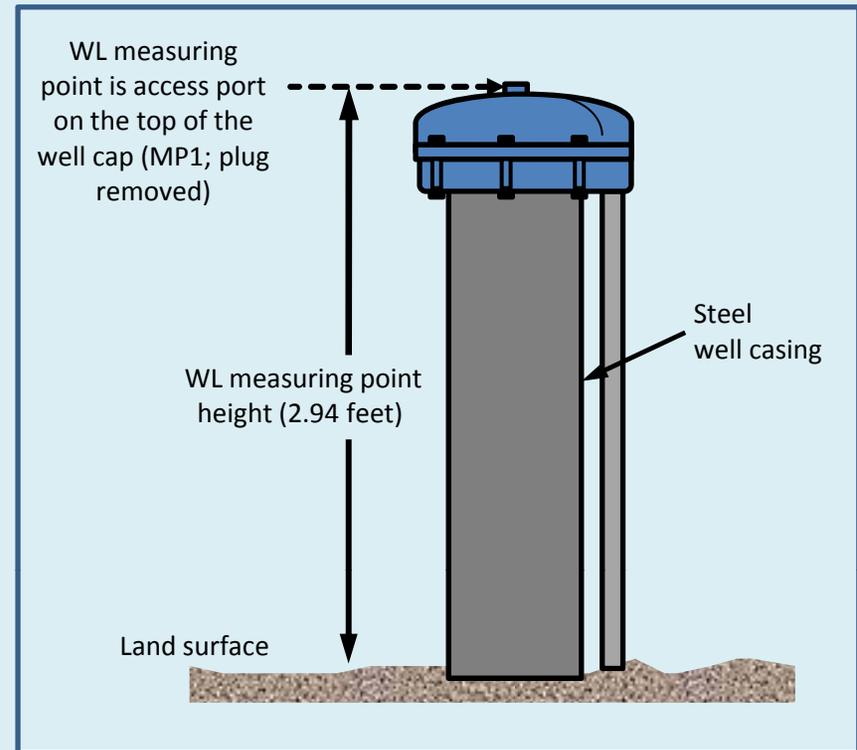
WL MP or TOC ID: TOC1

WL MP or TOC Description: Top of casing, well cap removed, black mark north side

WL MP or TOC Height: 2.36

WL MP or TOC Height Units: FT

WL MP or TOC Start Date: 4/23/2006



WL MP or TOC ID: MP1

WL MP or TOC Description: Access port on top of well cap, plug removed

WL MP or TOC Height: 2.94

WL MP or TOC Height Units: FT

WL MP or TOC Start Date: 8/23/2006

Example Water Level Measuring Points

Linking to a Well Log

Summary of the steps required to link an EIM well to a well log

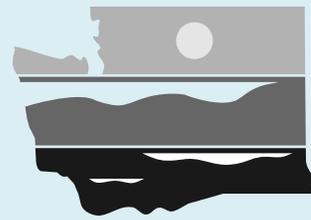
1. Use the Ecology Water Resources Program (WRP) online Well Log Search application to identify the correct log you want to link to.
(<http://apps.ecy.wa.gov/welllog/>)
2. Determine the WRP Well Log ID for the well you identified.
3. Enter the WRP Well Log ID you identified into the search field called “Legacy Well Log ID” on the EIM well log search form.
4. Click on the “Search” button to find the log. The appropriate well summary page should be listed.
5. Confirm the search identified the proper match to your EIM well by opening up the WRP Well Summary page, and viewing the log.
6. If correct, toggle to Select the chosen log, and click “OK” to link the EIM well to that log.

Adding a Supplementary Log to the Water Resources Program Well Summary Page

Adding a supplemental well log for an EIM well

- EIM well location owners can now add supplemental logs for a well.
 - Hydrogeologist's logs
 - Geophysical logs
 - Any other log recording details of the well prepared in addition to the driller's record
- Add supplemental log image files to the Water Resources Program **Well Summary** page
 - If you have a hardcopy of the supplemental log, scan it, and save and submit as a *.pdf file
 - If you already have the supplemental log image in electronic format, simply submit that file
 - Upload the file to the correct **Well Summary** page
 - Make sure to give the file a unique file name

Editing well information



DEPARTMENT OF
ECOLOGY
State of Washington

Additional Resources

To find additional tutorial videos and supporting files, visit:

<http://aww.ecology/eim/groundwater.htm>

To see additional help documentation, visit:

<http://www.ecy.wa.gov/eim/help.htm>

To submit a comment or question to the EIM Team, visit:

<http://apps.ecy.wa.gov/eimreporting/ContactUs.asp>