

Hydrofracturing Water Use Reporting Instructions

- 1) If you used over 300,000 gallons of water to hydrofrac a well, you must report your water use to the West Virginia Department of Environmental Protection. It does not matter which formation you were fracturing, just that you used over 300,000 gallons of water in the well.
- 2) This instruction manual should be printed in order to assemble the information before beginning the process.
- 3) For purposes of this report, flowback frac water is defined as being either 50% of the original injected water, or the water recovered during the first 30 days of flowback, whichever occurs first.

Questions? Contact Mark Collins (304) 926-0499 ext. 1280; email DEP.Water.Use@wv.gov



west virginia department of environmental protection

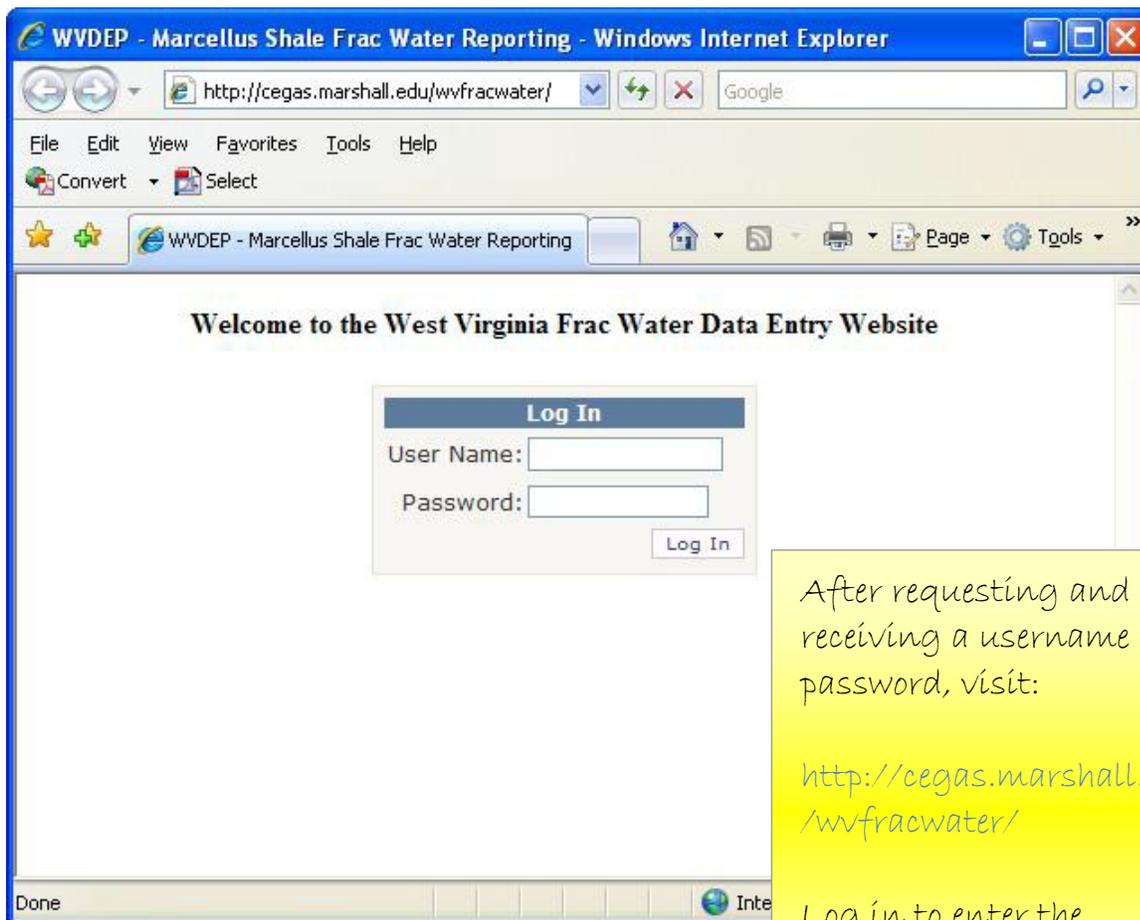


Hydrofracturing Water Use Reporting Instructions

- **Obtain a password**

Contact the WVDEP's Water Use section by email dep.water.use@wv.gov or phone (304) 926-0499 ext. 1280. Only one password can be issued per operator.

- **Log on**



After requesting and receiving a username and password, visit:

<http://cegas.marshall.edu/wvfracwater/>

Log in to enter the reporting tool...

- Enter company/contact information

The default tab 'Company Information' requires entry of contact information for both the operator and the point of contact for the operator (you). ***NEW*** The 'Submitted Well Sites' tab shows a summary of all reported wells for the operator for more convenient viewing (jump to page 11 for more details).

****NEW**** A summary of all completed wells can be viewed here; see page 11 for more details

Enter information about the operator

Enter your contact information

Partially completed well logs can be accessed or deleted here

To Continue to the next step (Water Source data), click here...

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- **Reporting Water Source**

Select the type of water source from the drop down menu. If you have multiple sources to report, click the appropriate link below.

The screenshot shows a web browser window titled "Water Source - Windows Internet Explorer". The address bar shows the URL "http://cegas.marshall.edu/WVFracWater/addWaterSc". The browser's menu bar includes "File", "Edit", "View", "Favorites", "Tools", and "Help". The page content includes a "Logout" link, "DEP_GNNG", and a "Help" link. The main heading is "Water Source". Below this, there is a form with several fields: "Type of Water Source:" (with a dropdown menu open showing options: "--Please Select One--", "Ground Water", "Lake", "Pond", "Reused Frac Water", "River", "Stream", "Purchased Water"), "Source Name:", "Decimal Latitude:", "Geographic Coordinate System: NAD 1983 (7 decimal places)", "Decimal Longitude:", "Geographic Coordinate System: NAD 1983 (7 decimal places)", "How was location determined? (if by GPS, give brand name and model)", "Total Amount Withdrawn (gal):", "Beginning Date: format: mm/dd/yyyy", and "End Date: format: mm/dd/yyyy". At the bottom of the form, there are three buttons: "Add another water source.(saves current water source entry)", "Save current water source entry and continue.", and "Cancel the current water source entry and continue.". A yellow sticky note with a black arrow pointing to the dropdown menu contains the text "Select water source type from the drop-down menu".

- **Reporting Water Source (continued)**

After entering all required data, proceed to the Well Information data entry page

The screenshot shows a web browser window titled "Water Source - Windows Internet Explorer". The address bar shows the URL <http://cegas.marshall.edu/WWFracWater/addWaterSc>. The browser menu includes File, Edit, View, Favorites, Tools, and Help. The page content includes a "Logout DEP_GNNG" link and a "Help" link. The main form is titled "Water Source" and contains the following fields:

Type of Water Source:	Stream
Source Name:	Name of Stream
Decimal Latitude: Geographic Coordinate System: NAD 1983 (7 decimal places)	38.3128470
Decimal Longitude: Geographic Coordinate System: NAD 1983 (7 decimal places)	-81.5702861
How was location determined? (if by GPS, give brand name and model)	GPS Earthmate PN60w
Total Amount Withdrawn (gal):	750,000
Beginning Date: format: mm/dd/yyyy	05/01/2011
End Date: format: mm/dd/yyyy	05/02/2011

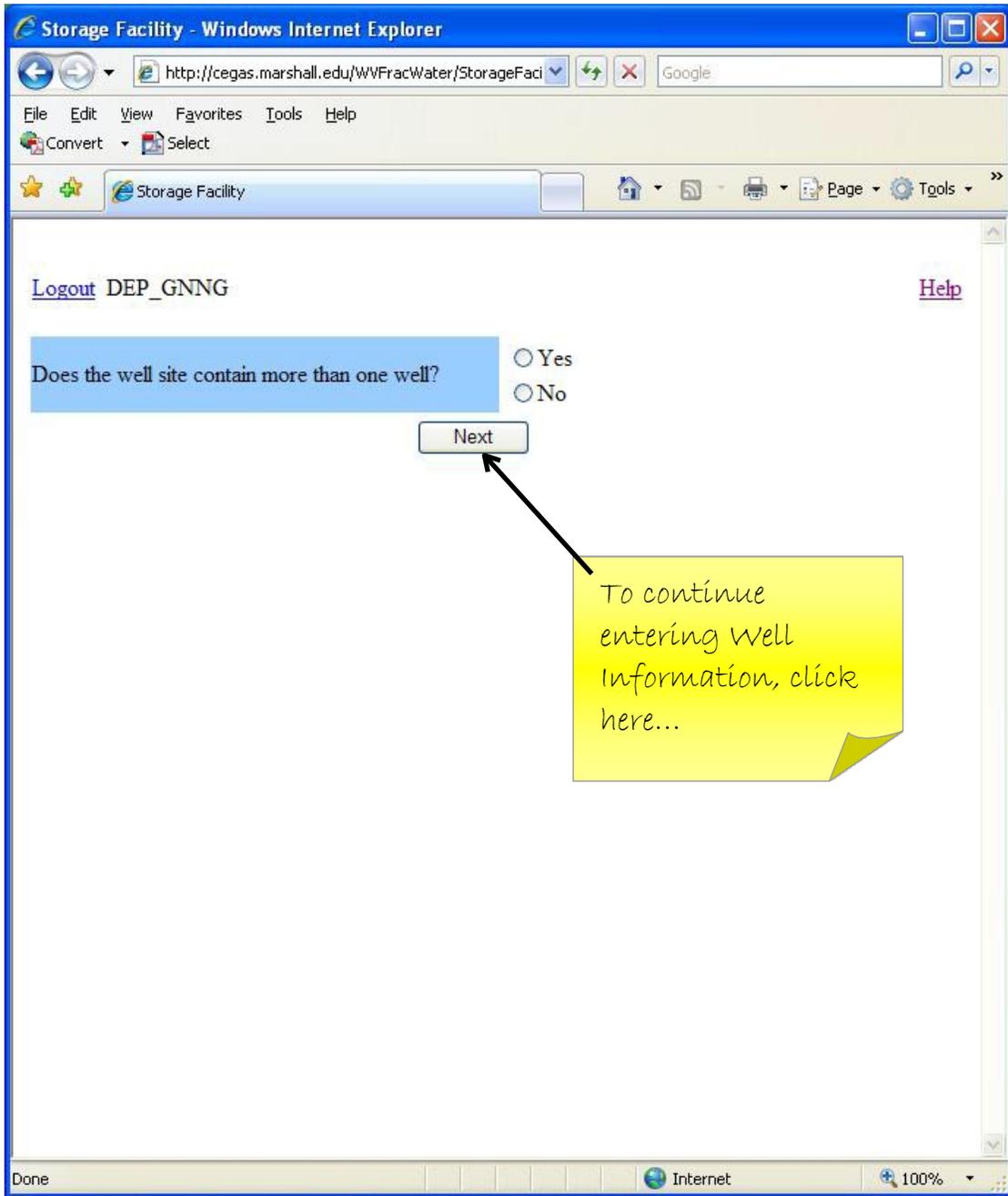
Below the form are three buttons:

- Add another water source.(saves current water source entry)
- Save current water source entry and continue.
- Cancel the current water source entry and continue.

Three yellow callout boxes provide instructions:

- Enter intake location decimal coordinates (pointing to the latitude and longitude fields)
- To report additional water sources, click here (pointing to the "Add another water source..." button)
- To continue to the next step (Well Information), click here... (pointing to the "Save current water source entry and continue." button)

- Reporting Well Information – Does the pad have multiple wells?



- Reporting Well Information – Well identification, injection, and recovery

Please provide information for all required fields, scroll to the bottom for Frac fluid disposal information

The screenshot shows a web browser window titled "Well Information - Windows Internet Explorer" with the URL "http://cegas.marshall.edu/WVFracWater/well.aspx". The page contains a form with the following sections and data:

- Well Identification Information**
 - API Number: 47 (between 1900000000 and 4710999999)
 - Descriptive Name: Well Description
- Well Location Data**
 - Decimal Latitude (7 decimal places): 38.3128470 (Geographic Coordinate System: NAD 1983)
 - Decimal Longitude (7 decimal places): -81.5702860 (Geographic Coordinate System: NAD 1983)
 - How was location determined? (if by GPS, give brand name and model): GPS Earthmate PN60w
- Well Details**
 - Producing Formation: Marcellus Shale
 - True Vertical Depth (TVD) (ft): 5500
 - Total Depth (TD) (ft): 7000
- Injected Water**
 - Total Amount of Frac Water Injected (gal): 750,000
 - Beginning Date: 05/02/2011 (format: mm/dd/yyyy)
 - Ending Date: 05/09/2011 (format: mm/dd/yyyy)
- Recovered Frac Water**
 - Total Amount of Frac Water Recovered (gal): 75,000
 - Beginning Date: 05/10/2011 (format: mm/dd/yyyy)
 - Ending Date: 05/17/2011 (format: mm/dd/yyyy)
- Frac Water Disposal Information**

A yellow sticky note with the text "Scroll down, there's more..." and an arrow pointing to the bottom of the page is overlaid on the right side of the form.

- **Reporting Well Information – Frac fluid disposal**

The hydrofracturing water use reporting tool allows for data entry for multiple frac fluid disposal methods, 'Reuse' and 'Underground Injection' are highlighted on the following pages.

The screenshot shows a web browser window titled "Well Information - Windows Internet Explorer" with the URL "http://cegas.marshall.edu/WVFracWater/well.aspx". The page contains several sections for data entry:

- Ending Date:** 05/09/2011
- Recovered Frac Water:**
 - Total Amount of Frac Water Recovered (gal): 0
 - Beginning Date: 05/10/2011
 - Ending Date: 05/17/2011
- Frac Water Disposal Information:**
 - UIC Class II Well Frac Water Disposal
 - Treatment
 - Land Appli
 - Reused in : Disposal

A modal dialog box titled "Reused in another Well Frac Water Disposal" is open, containing the following fields and buttons:

- API number where water is reused:
- Amount reused:
- Save
- Cancel

A yellow sticky note with a black border points to the "Save" button and contains the following text:

save to continue
cancel to return to Well Information data entry page

- **Reporting Well Information – Frac fluid disposal**

After entry is complete, save the disposal information and continue to the Summary page.

The screenshot shows a web browser window titled "Well Information - Windows Internet Explorer" with the URL <http://cegas.marshall.edu/WVFracWater/well.aspx>. The page contains several data entry fields. A modal dialog box titled "UIC Class II Well Frac Water Disposal" is open, containing the following fields:

- UIC Permit Number:
- Amount Injected (gal):
- Beginning Date: (format: mm/dd/yyyy)
- Ending Date: (format: mm/dd/yyyy)
- UIC Class II Well Decimal Latitude (7 decimal places):
- Geographic Coordinate System: NAD 1983
- UIC Class II Well Decimal Longitude (7 decimal places):
- Geographic Coordinate System: NAD 1983
- How was location determined? (if by GPS, give brand name and model):

At the bottom of the dialog are "Save" and "Cancel" buttons. A yellow sticky note on the right side of the dialog reads: "UIC Permit number and GPS coordinates required (decimal)".

Below the dialog, the "Recovered Frac Water" section is visible, with fields for "Total Amount of Frac Water Recovered (gal): 0" and "Beginning Date: 05/10/2011".

At the bottom left of the browser window, a yellow sticky note reads: "Continue to the summary page", with an arrow pointing to the "Save current" button.

- **Summary**

Has everything been entered correctly? Any mistakes? All data can be edited from this view.

IMPORTANT: Once data has been submitted, no further edits will be allowed.

Summary

Please review your data below before submitting it to the DEP.

Water Source(s)

ID	Name	Type	Latitude	Longitude	Location Determined By	Amount Withdrawn	Date Withdraw Began	Date Withdraw End
Edit 510	Name of Stream	6	38.3128470	-81.5702861	GPS Earthmate PN60w	750000.00	05/01/2011	05/02/2011

Well(s)

ID	API Number	Name	Latitude	Longitude	Injection Begin Date	Inject End Date	Amount Recovered	Recovery Begin Date	Recovery End Date
Edit 262	4700000000	Well Description	38.3128470	-81.5702860	5/2/2011 12:00:00 AM	5/9/2011 12:00:00 AM	75000.00	5/10/2011 12:00:00 AM	5/17/2011 12:00:00 AM

Frac Water Disposal: Reused in Another Well

ID	wellID	API Number Where Reused	Amount Reused
Edit 106	262	4700000000	75000.00

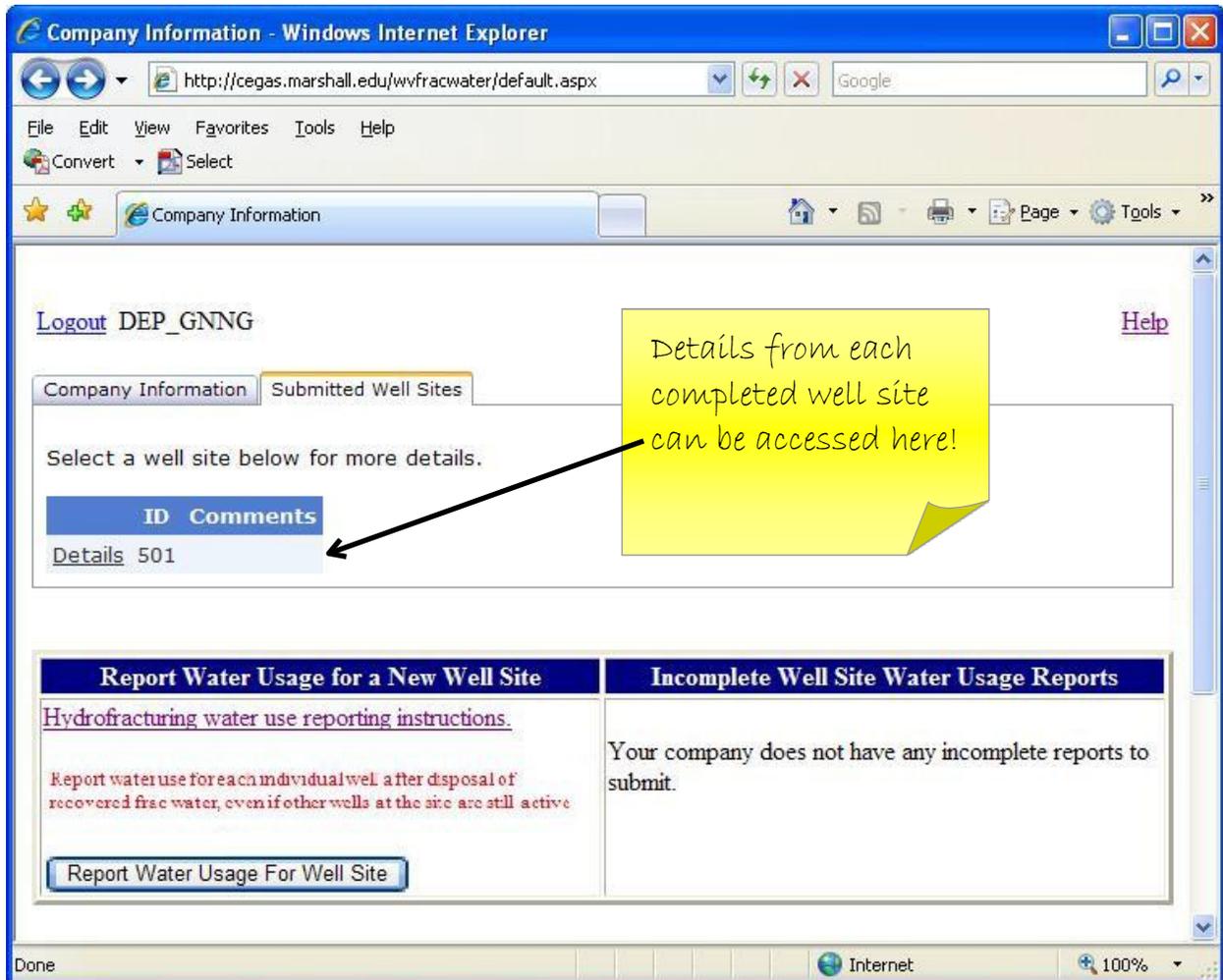
Please add any comments that you have for this site:

If the data listed above is correct submit it by clicking the submit button below. Otherwise click the cancel button. If you choose cancel, you will need to re-enter the data for this site again.

Done? Review all data carefully, once you submit, you will NOT be allowed to edit!

- ***NEW* Operator Summary**

All completed well logs for the operator can now be reviewed!



- ***NEW* Operator Summary (continued)**

The screenshot shows a web browser window displaying a well site summary page. The browser's address bar shows the URL: `http://cegas.marshall.edu/wvfracwater/enteredSites.aspx`. The page content includes:

- Well Site ID:** 501
- Comments on Well Site:** A large empty text area.
- Well Site Water Source(s)** (Section Header):
 - Water Source Name:** Name of Stream
 - Type of Water Source:** Stream
 - Latitude:** 38.3128470
 - Longitude:** -81.5702861
 - Location Determined By:** GPS Earthmate PN60w
 - Amount Withdrawn (gal):** 0.00
 - Water Withdrawal Began:** 05/01/2011
 - Water Withdrawal Ended:** 05/02/2011
- Well(s)** (Section Header):
 - Well API Number:** 4700000000
 - Well Name:** Well Description
 - Well Latitude:** 38.3128470
 - Well Longitude:** -81.5702860
 - Location Determined By:** GPS Earthmate PN60w
 - Producing Formation:** Marcellus Shale
 - True Vertical Depth (TVD) (ft):** 5500.00
 - Total Depth (TD) (ft):** 7000.00
 - Total Amount of Frac Water Injected (gal):** 0.00
 - Water Injection Began:** 5/2/2011 12:00:00 AM
 - Water Injection Ended:** 5/9/2011 12:00:00 AM
 - Total Amount of Frac Water Recovered (gal):** 0.00
 - Water Recovery Began:** 5/10/2011 12:00:00 AM
 - Water Recovery Ended:** 5/17/2011 12:00:00 AM
- Frac Water Reused in another Well** (Section Header):
 - API number where water was reused:** 4700000000
 - Amount reused:** 0.00

Handwritten annotations in yellow sticky notes are present:

- A yellow sticky note with the text "Water withdrawal Summary" is placed over the "Well Site Water Source(s)" section.
- A yellow sticky note with the text "Water use Summary" is placed over the "Well(s)" section.
- A yellow sticky note with the text "Disposal Summary" is placed over the "Frac Water Reused in another Well" section.

- **Log out**

Thank you for using the WVDEP's Frac Water Data Entry Website!

