

A CITIZEN'S GUIDE TO FRACKING PERMITS IN WV

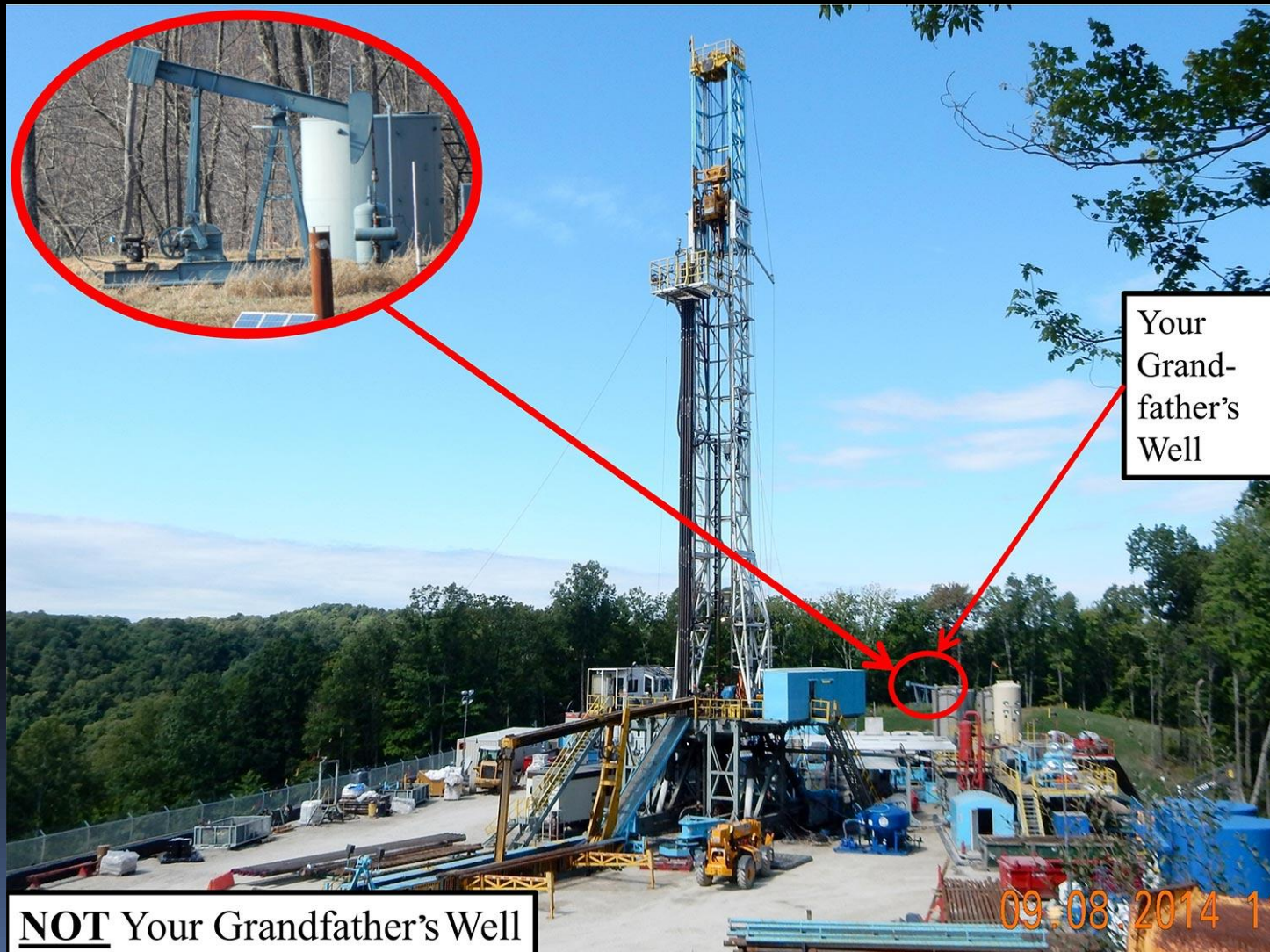
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Downstream Strategies

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What is Fracking?

natural gas extraction by hydraulic fracturing

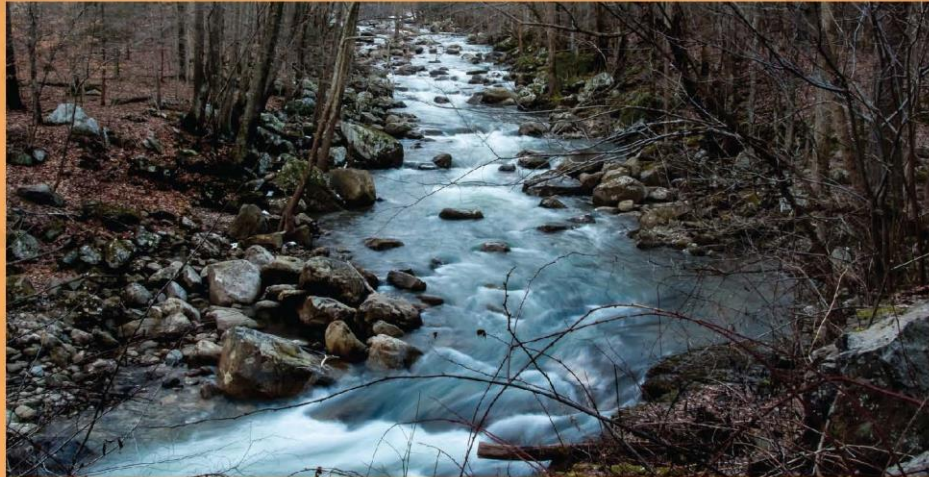


Your Grandfather's Well

NOT Your Grandfather's Well

Photo: Bill Hughes

CITIZENS' GUIDE TO FRACKING PERMITS IN WEST VIRGINIA



WEST VIRGINIA
RIVERS

Types of permits needed

Before any construction can occur, companies must apply to WVDEP for various permits designed to protect the environment:

1. Well Work Permit
2. Construction Stormwater Permit
3. State 401 Water Quality Certification
4. Underground Injection Control (UIC) Permit
5. Landfill Permit



Photo: Bill Hughes

Importance of Public Involvement

- Hold permitting agencies and companies accountable to the law.
- Speak up for the land, water, and community well-being.



Photo: Creative Commons

Subscribe to DEP's Public Notice mailing list:
www.dep.wv.gov/insidedep/Pages/DEPMailingLists.aspx

Tips for writing comments

- **Be as specific as possible.**
- **State your interest in the permit.**
- **Ensure all information is correct.**
- **Describe impacted resources**
- **Focus on the applicant's compliance history**



Photo: Creative Commons

Well Work Permit

WV State Code: §22-6 (all oil and gas wells) and §22-6A (horizontal wells)

WV Code of State Rules: 35 CSR 8

- Required to do work on a well
- Includes drilling and fracturing
- Valid for two years



Photo: Bill Hughes

Well Work Permit Requirements

- Process used to fracture the well
- Details of the well casings
- Erosion and sediment control plan
- Site safety plan
- Water management plan
- Waste disposal plan



Photo: Bill Hughes

Well Work Permit Requirements

Water Management Plan

Any permit requiring water withdrawals also requires a water management plan.

Waste Disposal Plan

Fracking produces liquid and solid wastes that must be addressed in a disposal plan.



Photo: Bill Hughes

Citizen Involvement!

Public Notice: Legal advertisement in newspaper, or <https://apps.dep.wv.gov/MLists2/Archive/index.cfm?listID=1>

Comment Period: 30 days from last publication of notice

Public Hearing: None

Legal Actions: Cannot appeal, must file claim in circuit court



Photo: Creative Commons

Effective Comments

- Proximity to homes, schools, hospitals, and other public places, and
- Proximity to drinking water wells and public water intakes.

Photo: Creative Commons



Any risk of contamination should be described.

Effective Comments

- Effectiveness of erosion and sediment controls
- Storage and containment plans for toxic fluids
- Effectiveness of the Spill Response Plan



Photos: Bill Hughes



Well Work Permits

Per the state code, permits can be denied if:

- Hazard to public safety
- Erosion and sediment controls inadequate.
- Impacts to publicly owned lands or resources.
- Failure to protect water sources.



Photo: Creative Commons

Underground Injection Control Permit

WV State Code: §22-6 and §22-11 WV

Code of State Rules: 47 CSR 13 and 47 CSR 58

- Required for wells that inject liquid waste underground to dispose of flowback fluids



Photo: Bill Hughes

Class 2 UIC Permit Requirements

- Area of Review(AOR) — quarter mile radius around the well
- Investigate existing gas wells (active or abandoned) and underground mines
- Underground drinking water supplies

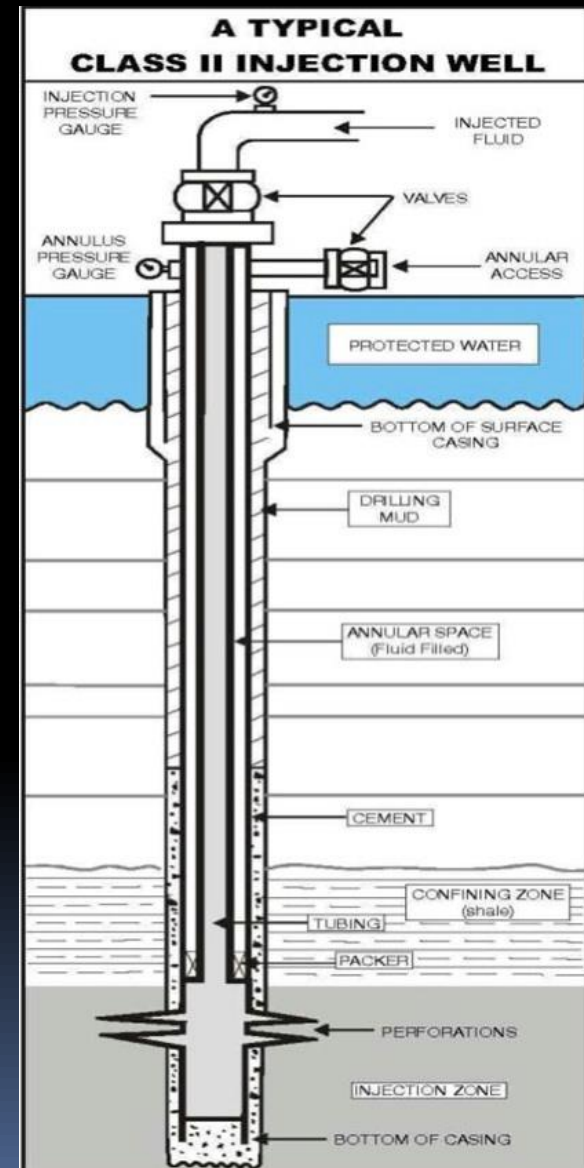


Figure: Creative Commons

Class 2 UIC Permit Requirements

- Path of injection fluids
- Mechanical testing of the well
- Injection fluids must be analyzed for contaminants

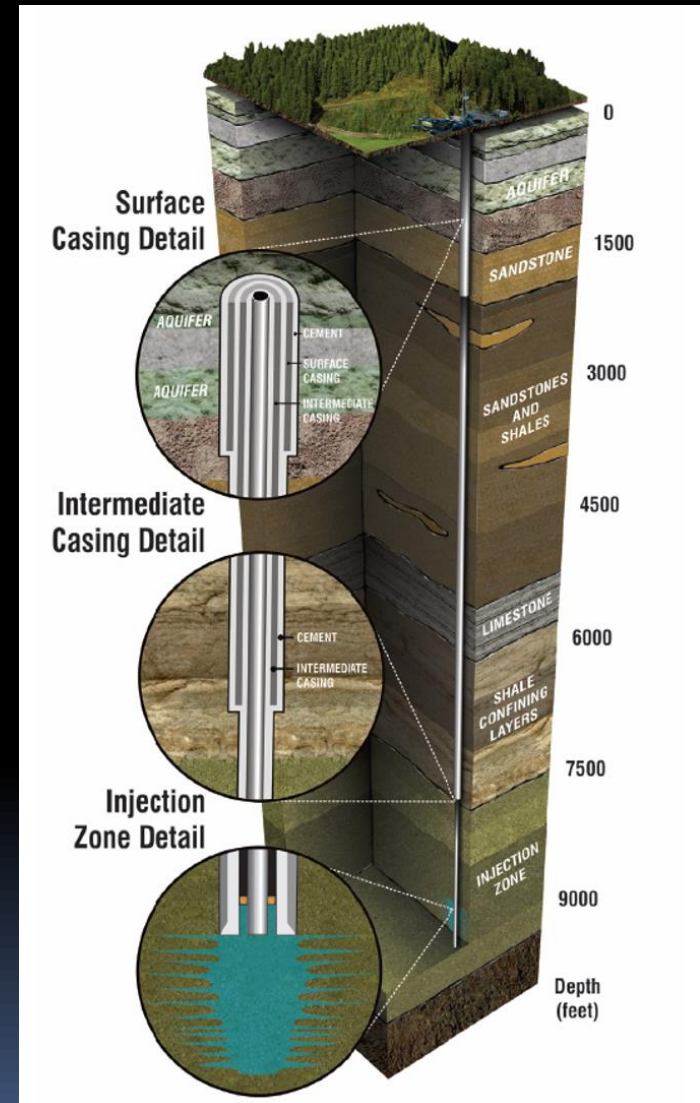


Figure: Creative Commons

Citizen Involvement!

Public Notice: Legal advertisement in newspaper, or <https://apps.dep.wv.gov/MLists2/Archive/index.cfm?listID=1>

Comment Period: 30 days from last publication of notice

Public Hearing: Can be held if requested, but not required

Legal Actions: Stakeholders may appeal WVDEP decision at the West Virginia Environmental Quality Board



Effective Comments on UIC Permits

- Threats to drinking water
- Risks for groundwater



Effective Comments on UIC Permits

Threats to surface waters



Photo: WV Rivers

Oil & Gas Construction General Stormwater Permit

WV State Code: §22-11 WV Code of State Rules: 47 CSR 10

- Pipelines, compressor stations, storage pads, and access roads
- Minimize impacts through best management practices (BMPs)
- Monitoring not required

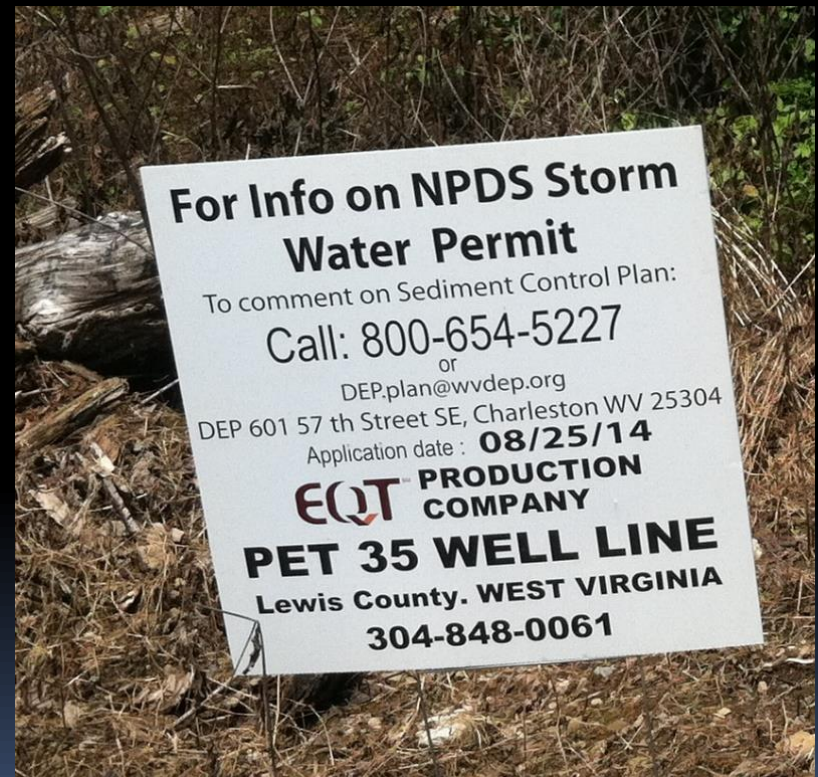
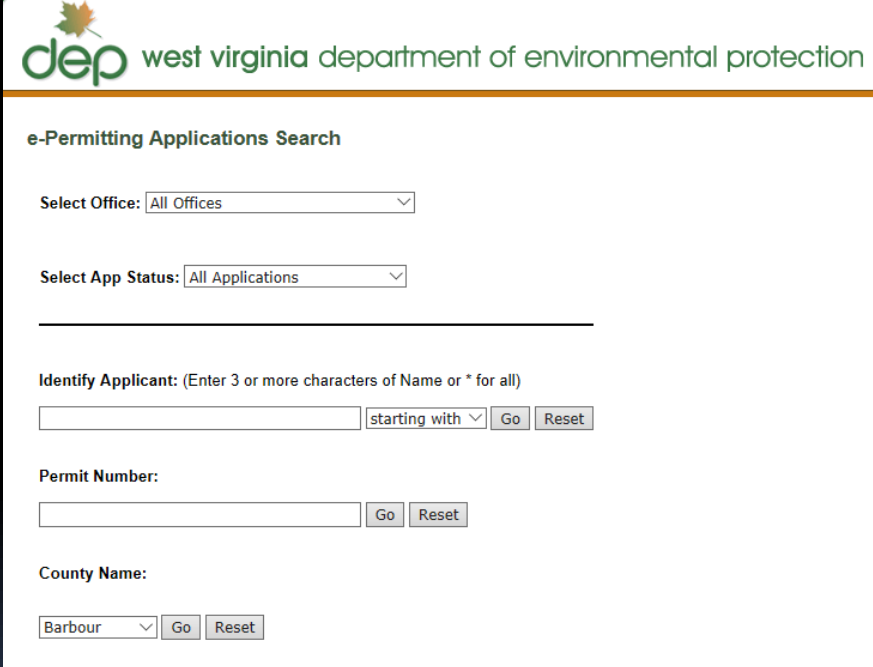


Photo: Autumn Crowe

Accessing Stormwater Permits

www.dep.wv.gov

1. Under Permitting, click "Electronic Submission System"
2. Under Public, click "Query"
3. Under Office, select "Water and Waste Management"
4. Under App Status, select "Open Applications"
5. Search by Applicant, Permit Number, or County



The screenshot shows the "e-Permitting Applications Search" page from the West Virginia Department of Environmental Protection. The page features a search interface with the following elements:

- Header:** The logo for the West Virginia Department of Environmental Protection (dep) is displayed on the left, with the text "west virginia department of environmental protection" to its right.
- Title:** The page is titled "e-Permitting Applications Search".
- Select Office:** A dropdown menu is set to "All Offices".
- Select App Status:** A dropdown menu is set to "All Applications".
- Identify Applicant:** A section with the instruction "(Enter 3 or more characters of Name or * for all)". It includes a text input field, a "starting with" dropdown menu, and "Go" and "Reset" buttons.
- Permit Number:** A text input field with "Go" and "Reset" buttons.
- County Name:** A dropdown menu is set to "Barbour", with "Go" and "Reset" buttons.

Stormwater Permit Requirements

Projects disturbing 1-3 acres

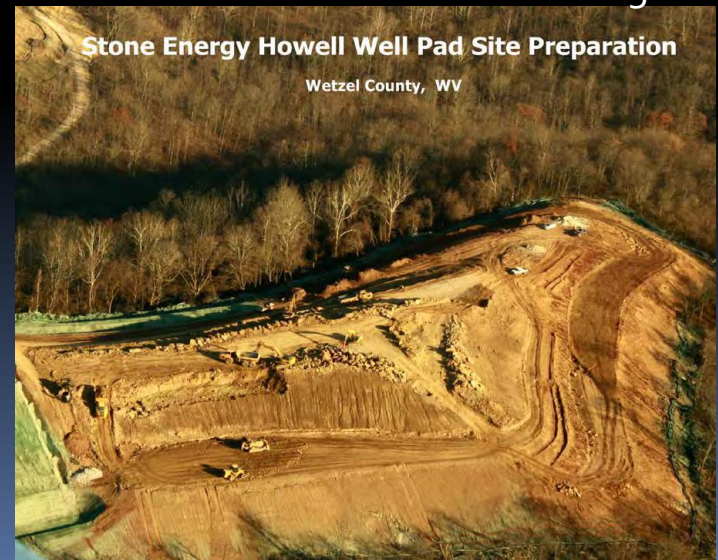
- Notice of Intent prior to construction
- SWPPP not subject to prior approval

Projects greater than 3 acres

- Submit 60 days prior to construction
- Erosion and Sediment Control Plan
- SWPPP required



Photo: Bill Hughes



Citizen Involvement!

Public Notice: Required if:

- earth disturbance lasts one year or longer
- disturbance greater than 100 acres
- discharges to Tier 3 (high quality) waters

Comment Period: 30 days, if public notice is triggered

Public Hearing: Held at DEP's discretion

Legal Actions: Can appeal the decision at the WV Environmental Quality Board



Comments on Stormwater Permits

- **Steep slopes**
- **Gaps in proposed BMPs**
- **Impacted streams**



Photo: Autumn Crowe

Comments on Stormwater Permits

- **Construction Schedule**
- **Hazardous materials**



Photo: Autumn Crowe

State 401 Water Quality Certifications

WV State Code: §22-1-6(d)(7) and §22-11-7(a)

WV Code of State Rules: 47 CSR 5A

- Complement 404 permits issued by the United States Army Corps of Engineers (USACE).
- Ensure activities meet water quality standards



Photo: Autumn Crowe

401 Application Requirements

- Identify streams and wetlands
- Impacts avoided and minimized
- Restoration plan



Photo: Jake Lemon

Citizen Involvement!

Public Notice: Applicants are required to publish notice in the local newspaper.

Comment Period: 30 day comment period.

Public Hearing: Not required; however, the public can request one.

Legal Actions: Impacted landowners may request a hearing to appeal WVDEP decision within 15 days. WVDEP decides whether to hold an appeal hearing.



Comments on 401 Application

- Accuracy of information
- Surface water impacts
- Erosion and sediment controls
- Stream crossing methods



Photo: notennesseepipeline.org

Comments on 401 Application

- Methods to reduce and avoid impacts
- Plans to restore the impacted waterways



Photo: barkhamstedhistory.org

Landfill Permits

- Not required for natural gas infrastructure
- Increase in drill cutting wastes associated with fracking, has increased the need for waste disposal.



Regulations on fracking waste

- Landfill cells for drilling wastes requires a permit modification from the WVDEP
- Monitoring at landfills may not reliably document impacts of drilling wastes



Photo: Bill Hughes

Landfill Permit Requirements

- Design of the facility
- Operations plan
- Info on the service area
- Waste streams and volume



Photo: Bill Hughes

- Waste characterization assessment

Landfill Permit Requirements

- Waste characterization
- Proximity to homes, businesses, gas wells, underground mines, roads, and waterways
- NPDES permit



Photo: Bill Hughes

Citizen Involvement!

Public Notice: Two public notices for landfill permits.

1. Pre-siting notice
2. After WVDEP issues a draft permit

Comment Period: Two 30 day comment periods

Public Hearing: Required for pre-siting notice.

Legal Actions: May appeal WVDEP decision to grant or deny the permit



Comments on Landfill Permits

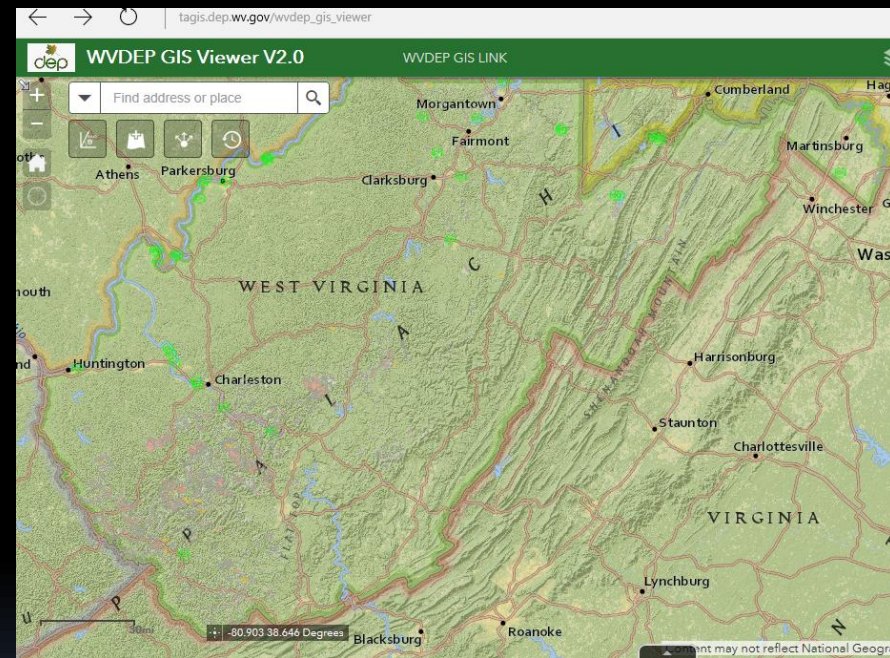
- Underlying geology suitable for long-term storage
- Avoid impacts to nearby waterways
- Air-quality restrictions



Photo: Bill Hughes

Additional Resources

- Interactive Maps:
 - WVDEP:
http://tagis.dep.wv.gov/wvdep_gis_viewer/
 - Mountain Valley Pipeline:
<http://indiancreekwatershedassociation.org/mountain-valley-pipeline-information>
 - Atlantic Coast Pipeline:
<http://pipelineupdate.org/>
- Freedom Of Information Act requests to WVDEP:
 - <http://www.dep.wv.gov/pio/Pages/FOIA.aspx>



Additional Resources

- WVDEP Water Quality Info:
 - Impaired waters (303d list):
http://www.dep.wv.gov/WW/WATERSHED/IR/Pages/303d_305b.aspx
 - Total Maximum Daily Loads:
<http://www.dep.wv.gov/WW/Watershed/TMDL/Pages/default.aspx>
 - High Quality Waters (Tier 3):
http://www.dep.wv.gov/WW/Programs/wqs/Documents/Tier%203%20Info/WV_Tier_3_Maps_20101006.pdf

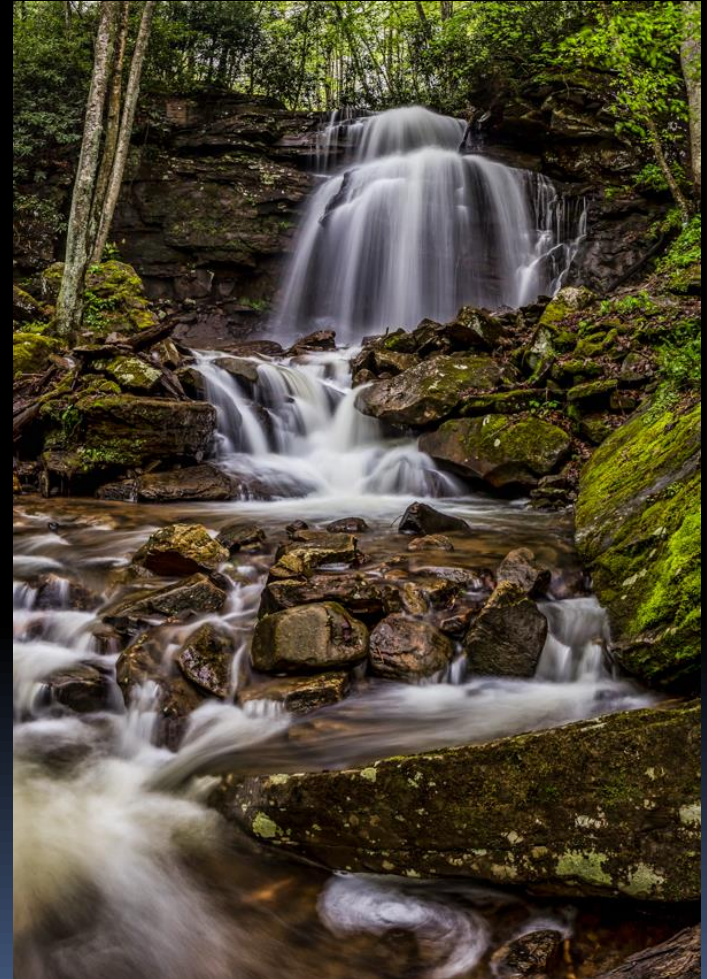


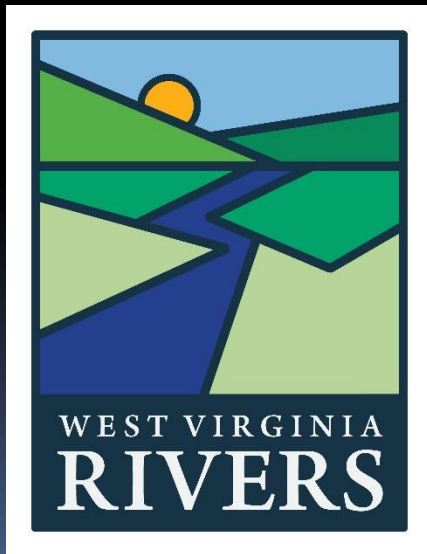
Photo: WV Rivers

Questions and Contact Info

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