THE LEAGUE LINE

A QUARTERLY PUBLICATION OF BLUE RIDGE ENVIRONMENTAL DEFENSE LEAGUE

NCDEQ FINDS PFAS IN LANDFILL GROUNDWATER

The North Carolina Department of Environmental Quality (DEQ) has discovered that many landfills across the state have PFAS contamination in their groundwater. In some cases, this contamination might even be spreading off the landfill sites. *(page 3)*

NEW CONTROVERSY SURROUNDING MOUNTAIN VALLEY PIPELINE

New controversy surrounding the Mountain Valley Pipeline -- which BREDL chapters and staff fought for a 10-year period starting in 2014 -- has been brought to light by articles appearing in the Charleston Gazette-Mail and the Roanoke Times this June. The stories published in these news outlets describe a lawsuit being filed by a welding inspector who had been employed by the pipeline developer, Mountain Valley Pipeline, LLC. *(page 5)*

Image: Scott Lineberger

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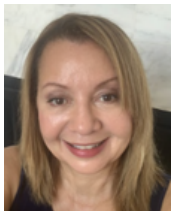
BREDL HAS ITS DAY IN SC'S HIGHEST COURT

BY: KATHY ANDREWS, BREDL EXECUTIVE DIRECTOR



What a great day at the South Carolina Supreme Court on June 24th. BREDL's attorneys were steadfast in the fight against Dominion Energy's proposed River Neck to Kingsburg gas pipeline in Florence County. In fact, one of our attorneys, Steven Spitz, is a law professor and taught one of the Supreme Court justices. Before professor Spitz began his presentation, the justice said, "I don't know if you remember me, but you taught me in law school, and I have the utmost respect for you."

The conservative court could take up to a year to make their final decision. Regardless of the outcome, BREDL is on the right side of justice. This is a pipeline that is unnecessary and dangerous for the Pamplico community already riddled with health problems, poverty, and pollution from nearby plants. Dominion Energy is a private company that has been operating with impunity in South Carolina with no oversight from government agencies, who do not require water testing. The company has a history of infractions including water contamination in Spartanburg, South Carolina, where a local utility had to purchase bottled water after a Dominion pipeline leaked. The lack of testing was one of the main points that BREDL attorneys argued before South Carolina's highest court.

This is probably the last opportunity for environmentalists to challenge gas pipelines in South Carolina. With the passing of SC energy bill H.3309, pipeline projects in South Carolina would be automatically approved after six months, preventing regulatory or environmental challenges. In addition, the legislation would allow private property to be seized through eminent domain for all new pipeline construction under an emergency declaration. The bill will also potentially cause large scale environmental damage to the state's natural landscapes and wildlife refuges as well as contaminate the state's water resources. The Dominion Energy sponsored bill is a slap in the face to South Carolina taxpayers, who will be left paying nearly $6 million for the bill's administrative costs, according to the South Carolina Revenue and Fiscal Affairs Office.

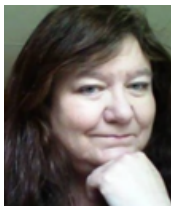
BREDL Grassroots Mini Grant Program

The BREDL Grassroots Mini Grant Program (GMGP) is a grant being offered by BREDL to its chapter organizations and other grassroots groups who need cash for the purpose of developing, expanding, enhancing, promoting, or otherwise improving their campaigns to protect the environment in the communities where they live. The GMGP will be offered in amounts ranging from $500 to $2,500.

For more details, please contact Kathy Andrews (843-698-9816, kandrews@bredl.org) or Ann Rogers (540-312-3104, amelvin3@verizon.net).

NORTH CAROLINA FINDS "FOREVER CHEMICALS" IN LANDFILL WATER

BY: THERESE VICK



The North Carolina Department of Environmental Quality (DEQ) has discovered that many landfills across the state have PFAS contamination in their groundwater. In some cases, this contamination might even be spreading off the landfill sites.

What are PFAS?

PFAS stands for Per- and Polyfluoroalkyl Substances. These are a large group of man-made chemicals used since the 1940s in many products because they resist heat, grease, oil, and water. They are often called "forever chemicals" because they do not break down easily in nature or in our bodies, meaning they can build up over time.

What DEQ Shared in May 2025: During a meeting with the Environmental Management Commission (EMC), DEQ provided the following updates:

- Regular Testing: PFAS samples were collected during each landfill's routine monitoring (usually twice a year).
- Two Rounds of Data: Landfills were required to complete PFAS monitoring for two separate events. As of December 2024, every landfill had submitted at least one set of PFAS data.
- Public Access to Reports: All groundwater monitoring reports received by DEQ have been uploaded to their public online document system, Laserfiche. (If you want to view these documents, please contact Therese Vick.)

This is a list that was provided by DEQ naming the landfills that they have identified for additional testing/assessment. Some of these landfills are closed, some are still operating.

Permit ID	Facility Name	County
0101-MSWLF-1979	Alamance County Landfill	Alamance
0105-CDLF-1998	Cobles C&D Landfill	Alamance
0901-MSWLF-1981	Bladen County Landfill	Bladen
1304-MSWLF-1992	BFI-Charlotte Mtr Speedway Landfill V	Cabarrus
1306-CDLF-2000	Highway 49 C&D Landfill & Recycling Greenway Waste	Cabarrus
2401-MSWLF-1982	ARS - Columbus County	Columbus
2902-MSWLF-1985	Davidson County Landfill	Davidson
4502-INDUS-	Kimberly Clark Industrial Waste Landfill	Henderson
5504-CDLF-1999	Lake Norman Landfill	Lincoln
6013-CDLF-1993	Greenway Waste Solutions at North Meck	Mecklenburg
6204-MSWLF-1995	Uwharrie Env. Reg. Landfill	Montgomery
7401-MSWLF-	Pitt County MSWLF (Closed 0500n)	Pitt
7401-MSWLF-1974	Pitt County Landfill	Pitt
7407-CDLF-2001	C & D Landfill Inc.(Phase 1)	Pitt
7407-CDLF-2009	C & D Landfill Inc	Pitt
7803-MSWLF-1985	Robeson County Landfill	Robeson
8002-INDUS-1974	Celanese Fibers	Rowan
8202-CDLF-1996	Sampson County Disposal, LLC	Sampson
8202-MSWLF-2000	Sampson County Disposal, LLC	Sampson
8301-CDLF-1997	Scotland County CDLF	Scotland
8301-MSWLF-1980	Scotland County Landfill	Scotland
8401-MSWLF-1999	Albemarle, City of Landfill	Stanly
9003-CDLF-1995	Griffin Farm CDLF	Union
9231-CDLF-2012	Brownfield Road C&D Landfill	Wake

LANDFILL GROUNDWATER REPORT

USE THE QR CODE TO VIEW THE FULL CHART DETAILING GROUNDWATER CONTAMINATION AT NC LANDFILLS

Understanding PFAS Levels

The information below, including the chart data, comes directly from DEQ and was shared at the EMC meeting. The chart specifically highlighted landfills with the highest PFAS levels in their groundwater.

Reference: Important PFAS Compounds and Their Recommended Limits in Water (ng/L = nanograms per liter, a very small amount)

PFAS Chemical Name	Chemical ID	Recommended Groundwater Limit (ng/L)
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.7*
Perfluorooctanoic acid (PFOA)	335-67-1	0.001*
Hexafluoropropylene oxide dimer acid (HFPO-DA or GenX)	13252-13-6	10
Perfluorobutane sulfonic acid (PFBS)	375-73-5	2,000
Perfluorononanoic acid (PFNA)	375-95-1	10
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	10
Perfluorobutanoic acid (PFBA)	375-22-4	7,000
Perfluorohexanoic acid (PFHxA)	307-24-4	4,000

- About the "*" (for PFOA and PFOS): The recommended limits (called Interim Maximum Allowable Concentrations, or IMACs) for PFOA and PFOS are so low that they are generally below what standard lab equipment can reliably detect (this is called the Practical Quantitation Limit, or PQL).
- If a lab reports PFOA or PFOS at or above 4 ng/L (using EPA Test Method 1633), it would be considered higher than the proposed health-based limit for that chemical.

Alarming PFAS Levels Found in Landfill Groundwater: PFAS levels detected in groundwater at some landfills identified by DEQ are extremely high. In certain cases, these levels are tens of thousands of times higher than the state's Interim Maximum Allowable Concentrations (IMACs), which are set as health-based guidelines. For example, at the closed Alamance County landfill:

- PFOA was found at 6,830 ng/L. This is drastically higher than North Carolina's groundwater IMAC of 0.001 ng/L.
- PFOS was detected at 11,800 ng/L. This also far exceeds the North Carolina groundwater IMAC of 0.7 ng/L.

The following provides more details on some of these significant findings:

			GenX		PFOA		PFOS		PFBA		PFBS		PFHxA		PFHxS		PFNA					
		CAS Number	13252-13-6		335-67-1		1763-23-1		375-22-4		375-73-5		307-24-4		355-46-4		375-95-1					
		2L Groundwater IMAC *	**10**		**0.001**		**0.7**		**7000**		**2000**		**4000**		**10**		**10**					
		Existing Laboratory PQL*	5		4		4		5		3		3		3		4					
		Federal MCL Drinking Water Standard*	**10**		**4**		**4**		n/a		n/a		n/a		**10**		**10**					
		Units	ng/L		ng/L		ng/L		ng/L		ng/L		ng/L		ng/L		ng/L					
Permit ID	**Facility Name**	**County**	**MIN Detect**	**MAX Detect**	**MIN Detect**	**MAX Detect**	**MIN Detect**	**MAX Detect**	**MIN Detect**	**MAX Detect**	**MIN Detect**	**MAX Detect**	**MIN Detect**	**MAX Detect**	**MIN Detect**	**MAX Detect**	**MIN Detect**	**MAX Detect**	**Facility Type**	**Ownership Status**	**Operational Statu**	**Construction Type**
0101-MSWLF-1979	Alamance County Landfill	Alamance	1.2	11	0.5	6830	1.2	11800	1.1	452	0.2	262	0.2	1440	0.2	581	0.3	973	MSWLF	Public	s Closed	Unlined
0104-CDLF-1993	Austin Quarter C&D Unit	Alamance	2.1	2	4.0	317	1.6	170	3.0	140	0.7	78	1.2	460	1.2	76	0.3	21	CDLF	Public	Inactive	Unlined
0104-MSWLF-1994	Austin Quarter SWM Facility	Alamance	1.8	2	0.2	2000	0.3	24	9.1	327	3.2	99	0.1	1800	0.5	30	0.3	33	MSWLF	Public	Active	LINED
0105-CDLF-1998	Cobles C&D Landfill	Alamance	BDL	BDL	6.0	190	2.6	39	3.9	97	2.1	130	1.8	220	1.1	67	0.4	8	CDLF	Private	Active	Unlined
0201-MSWLF-1979	Alexander County Landfill	Alexander	40.3	64	0.4	479	0.4	287	0.7	354	0.6	151	0.4	1930	0.4	168	0.3	62	MSWLF	Public	Closed	Unlined
0302-MSWLF-1981	Alleghany County Landfill	Alleghany	1.1	2	1.6	8	0.3	4	1.3	10	0.7	3	0.8	14	0.4	11	0.2	1	MSWLF	Public	Closed	Unlined
0401-MSWLF-1973	Anson County Landfill	Anson	BDL	BDL	4.4	12700	9.7	1350	1630.0	1630	1060.0	1060	5.6	18500	1340.0	1340	375.0	375	MSWLF	Public	Closed	Unlined
0403-MSWLF-2010	Chambers Development MSWLF (Anson Landfill)	Anson	BDL	BDL	10.0	129	1.2	15	8.7	45	0.7	54	1.8	298	2.3	5	2.1	10	MSWLF	Private	Active	LINED
0501-MSWLF-1980	Ashe County Landfill	Ashe	6.1	6	0.3	92	0.3	13	0.6	72	0.2	20	0.4	233	0.3	12	0.3	20	MSWLF	Public	Closed	Unlined
0501-MSWLF-1993	Ashe County Landfill	Ashe	BDL	BDL	0.2	14	0.3	14	0.9	18	0.2	30	0.5	59	0.2	3	0.2	2	MSWLF	Public	Active	LINED
0601-MSWLF-1987	Avery County Landfill	Avery	BDL	BDL	3.7	40	1.2	10	2.1	9	1.0	4	2.6	16	0.9	7	0.3	6	MSWLF	Public	Closed	Unlined
0603-CDLF-1996	Avery County C&D Landfill	Avery	BDL	BDL	5.9	18	0.7	13	3.9	8	1.3	6	12.0	22	1.3	9	0.3	2	CDLF	Public	Active	Unlined
0801-MSWLF-1979	Bertie County Landfill	Bertie	0.5	2	0.2	220	0.2	33	0.3	36	0.4	12	0.5	77	0.4	14	0.6	1	MSWLF	Public	Closed	Unlined
0803-MSWLF-1993	East Carolina Environmental Regional Landfill	Bertie	1.3	3	0.2	170	0.3	14	0.6	119	0.2	100	0.2	249	0.2	20	0.1	7	MSWLF	Private	Active	LINED
0901-MSWLF-1981	Bladen County Landfill	Bladen	2.6	7800	0.3	270	1.4	21	0.3	480	0.5	8	0.2	160	1.0	13	0.3	1	MSWLF	Public	Closed	Unlined
0905-CDLF-2000	Bladen County C&D Landfill	Bladen	0.2	22	0.1	100	0.1	86	0.2	70	0.4	25	0.1	130	0.1	87	0.1	4	CDLF	Public	Closed	Unlined
10001-MSWLF-1987	Yancey-Mitchell Sanitary Landfill	Yancey	BDL	BDL	6.0	31	2.1	9	3.5	79	2.2	10	6.5	100	1.4	3	BDL	BDL	MSWLF	Public	Closed	Unlined
10002-CDLF-1997	Yancey-Mitchell C&D Landfill	Yancey	BDL	BDL	19.0	24	BDL	BDL	13.0	17	4.4	5	34.0	50	9.9	25	BDL	BDL	CDLF	Public	Closed	Unlined

See full chart here:

We are actively reviewing documents about these sites. We expect to have more data soon regarding:
Contamination of groundwater and surface water outside the landfill boundaries.
Where the liquid waste (leachate) from these landfills is currently being disposed.

If you would like additional information, please contact Therese Vick.

NEW CONTROVERSY SURROUNDING MVP PIPELINE

By: Ann Rogers

New controversy surrounding the Mountain Valley Pipeline -- which BREDL chapters and staff fought for a 10-year period starting in 2014 -- has been brought to light by articles appearing in the Charleston Gazette-Mail and the Roanoke Times this June. The stories published in these news outlets describe a lawsuit being filed by a welding inspector who had been employed by the pipeline developer, Mountain Valley Pipeline, LLC (MVP, LLC). The news stories report that the welder's lawsuit alleges the following:

- In November, 2023, the welding inspector, Michael Barnhill, identified three welded joints on the MVP pipe on which corrosion was sufficient to render them in violation of construction standards and federal regulations.
- Barnhill's supervisor agreed that the pipes were deficient.
- Another MVP official subsequently stated, "If you want to keep your job, just install [the joints]."
- Barnhill refused to create false inspection reports approving the corroded joints, as requested by the MVP official.
- Barnhill was transferred to a different section of the MVP, after which his employment was terminated.
- After learning that the corroded segments had been approved by the inspector who replaced him, Barnhill submitted a report on the incident to the U.S. Pipeline and Hazardous Materials Safety Administration (PHMSA).
- On April 29, 2025, Barnhill filed his lawsuit in the Monroe County (WV) Circuit Court. The suit alleges "retaliatory discharge" by MVP, LLC and its parent companies, and seeks damages for lost wages and the "indignity, embarrassment, humiliation, annoyance, and inconvenience" experienced by Barnhill as a result of being fired.

BREDL's 2020 campaign

The Barnhill lawsuit follows in the wake of over a decade of requests and demands to Federal Energy Regulatory Commission (FERC) and PHMSA, made by residents of all the communities crossed by the MVP and by many environmental nonprofits including BREDL – all of which sought recognition and remediation of the safety hazards implicit in the construction and operation of the MVP.

In 2020, BREDL embarked on a campaign to obtain agreement from Virginia Department of Environmental Quality (DEQ) to require MVP, LLC to revise the water protection plans for the MVP project prior to any further pipeline construction. These plans included:
(a) Project Specific Standards and Specifications for Virginia (Standards)
(b) site-specific Erosion and Sediment Control Plans for the MVP (ESC Plans), and
(c) site-specific Stormwater Management Plans for the MVP (SWM Plans).

This campaign, which was made possible through the training and guidance provided by a licensed professional geologist, Pamela Dodds, Ph.D., sought these revisions as a means to ensure both water quality and pipeline safety. Specifically, the campaign sought:

- Correction of MVP, LLC's flawed calculations that, as of 2020, had resulted in under-reporting of peak stormwater discharge and employment of inadequate sediment barriers and techniques
- Recognition of the presence of a high concentration of groundwater in the Roanoke County portion of the MVP project area, as detailed in Roanoke County's LiDAR mapping (see discussion, below), and consideration of how this groundwater was anticipated to be transferred to the surface during pipeline construction, which would contribute significantly to stormwater runoff
- Recognition of the risk of pipeline explosion in Roanoke County due to the high volume of groundwater in a steep and rocky terrain, which may lead to subsurface flows and earth movement in the pipeline corridor.

BREDL was extraordinarily honored to obtain signatures from 50 environmental activists on a letter which we sent to Roanoke County and Franklin County on September 10, 2020 requesting that these county governments join our petition to DEQ to revise the Standards, ESC Plans, and Stormwater plans for the MVP. The governments of both counties, which are crossed by the MVP, acquiesced to our request.

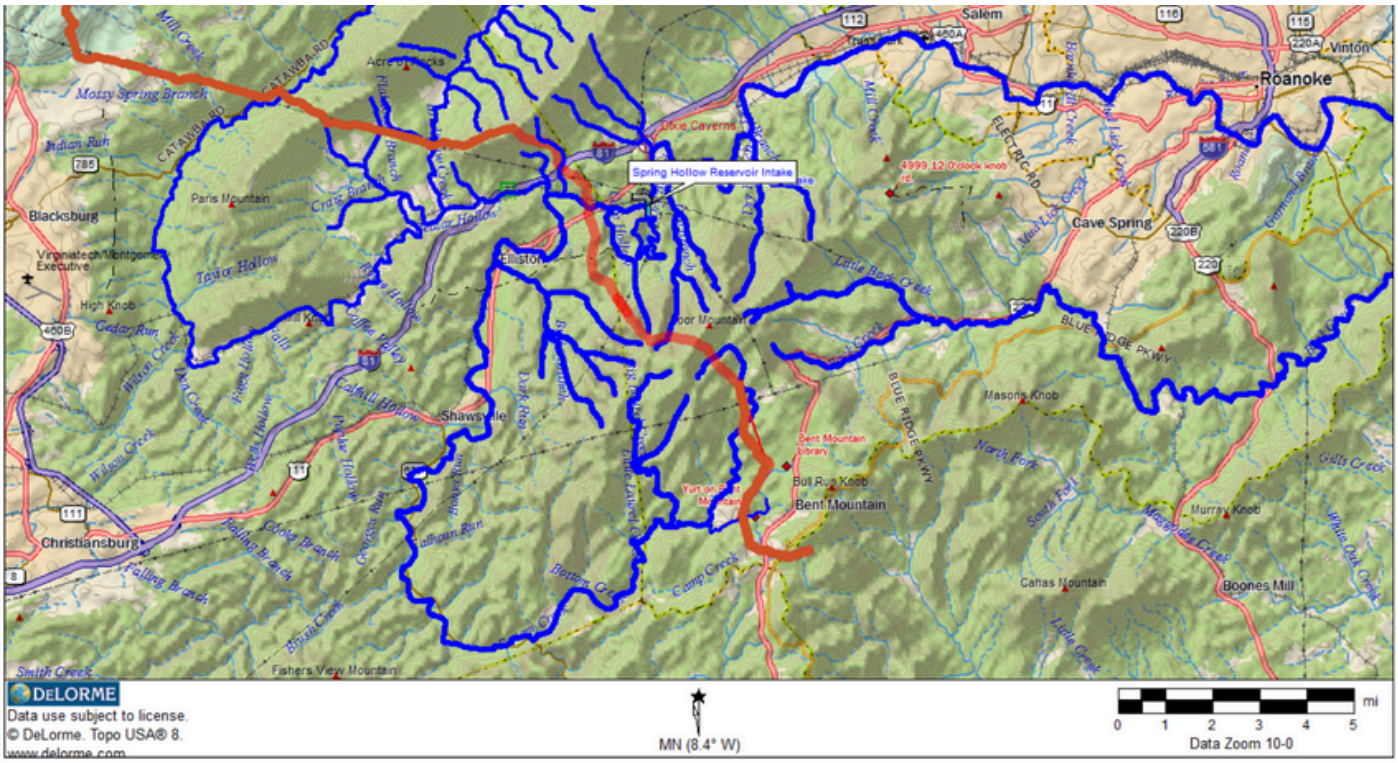
On October 6, 2020, Richard Caywood, Roanoke County's Assistant County Administrator, wrote a letter to DEQ which stated, "Due to MVP's continuing inability to manage erosion and sediment impacts for the project, Roanoke County Staff have requested that the FERC work with the DEQ to enhance requirements in these areas and grant no authorization to resume work until that time or tie any extension to such requirements. Finally, we are also concerned with any resumption of work this late in the construction season as the inability to revegetate work areas during the late fall and winter will likely exacerbate E&S issues on the project."

Then on October 26, 2020, the Franklin County Board of Supervisors submitted a memorandum to DEQ forwarding a resolution approved at the Franklin County Board of Supervisors meeting on October 20, 2020 requesting that: "The Virginia Department of Environmental Quality review the previous plans, consider the concerns raised by BREDL, and determine whether revisions or project-specific Erosion and Sediment Control and Stormwater Management Plans for environmentally sensitive areas of the proposed Mountain Valley Pipeline project that meet all Virginia standards, should be required to ensure that the continued pipeline construction will not have detrimental impacts to the Blackwater River and Smith Mountain Lake."

And on October 28 and November 10, 2020, the Blue Ridge Soil & Water Conservation District issued letters to DEQ expressing support for Roanoke and Franklin County's requests to DEQ for reconsideration of SWM and ESC planning for the MVP.

WHAT'S AT STAKE?

The MVP has been routed through a dense network of mountain streams originating from springs on the eastern slope of Poor Mountain in the Bent Mountain community in Roanoke County. Below please see a map showing MVP's route across the North and South Forks of the Roanoke River and the Roanoke River itself, which is crossed just upstream of the Spring Hollow Reservoir intake.



Map illustrates MVP crossing the North and South Forks of the Roanoke River, the Roanoke River, and the network of streams originating from springs on the eastern slope of Poor Mountain.

ROANOKE COUNTY'S LIDAR MAPPING

In 2017, responding to inquiries from the Roanoke County Pipeline Advisory Committee (PAC), Roanoke County GIS staff devoted dozens of hours to the challenging task of learning how to use LiDAR technology to create useful and instructive maps regarding potential springs and intermittent streams within Roanoke County. As reported by Roanoke County's GIS staff to members of the PAC, mapping with LiDAR identified approximately 1,374 "potential" springs within the County's portion of the Limits of Disturbance of the MVP. Please see image, below, showing one of many LiDAR maps produced by Roanoke County's GIS Department indicating potential springs and associated headwaters appearing in the portion of the MVP in Roanoke County, including the area around Bottom and Mill Creeks.

PHMSA WARNS OF PIPELINE EXPLOSION IN STEEP TERRAIN

In May, 2019, Pipeline and Hazardous Materials Safety Administration (PHMSA) issued a bulletin in response to seven recent pipeline explosions primarily in the eastern U.S., all of which were related to problems with erosion. The purpose of the bulletin was to "remind the owners and operators of gas and hazardous liquid pipelines of the potential for damage to pipeline facilities caused by earth movement from both landslides and subsidence in variable, steep, and rugged terrain."

The MVP route through Roanoke County is a prime example of the "variable, steep, and rugged terrain" noted as being at risk of landslides and subsidence, which may lead to pipeline explosions. The presence of groundwater throughout the MVP construction zone, as documented by Roanoke County GIS's LiDAR mapping, accentuates the risk of pipeline destabilization and explosion as a result of subsurface flows underneath the installed pipeline.

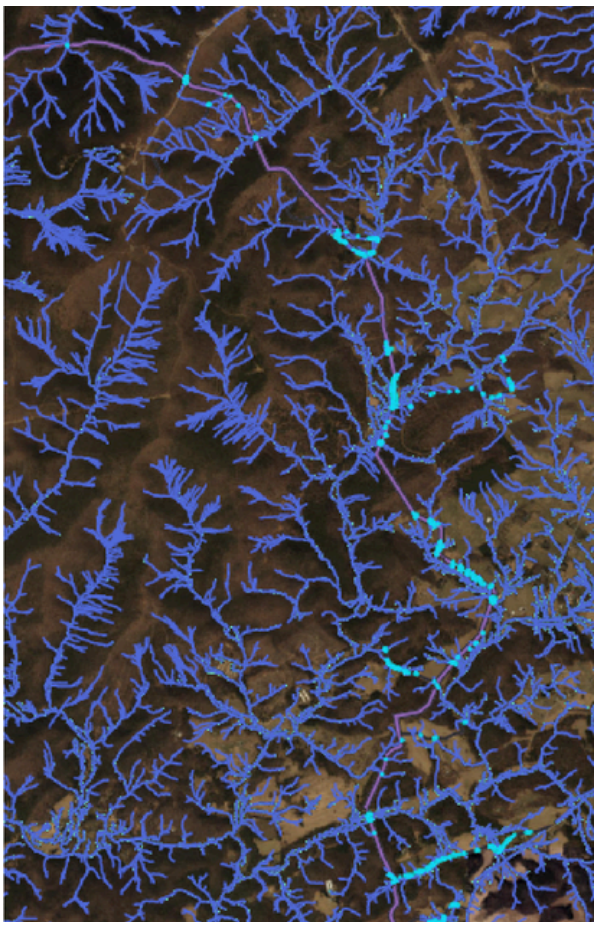
FRANKLIN COUNTY'S REQUEST TO EQT CORPORATION IN 2018

On July 10, 2018, Franklin County Supervisor, Mike Carter, made a motion to the Franklin County Board of Supervisors that the county write to EQT Corporation requesting that odorant be added to the MVP. In response to Mr. Carter's motion, Administrator W. Brent Robertson wrote to EQT Corporation requesting that odorant be added to the gas in the MVP mainline for purposes of public safety. Mr. Robertson's letter stated:

"On behalf of the Board of Supervisors of the County of Franklin, Virginia and its citizens, the purpose of my letter is to request that EQT add a natural odorant to its Mountain Valley Pipeline (MVP) natural gas transmission pipeline in order that leaking gas may be detected by smell.

The request to add an odorant to the MVP natural gas transmission line is for safety reasons. The County believes the odorant could facilitate an early warning to both property owners and other individuals who may be in the vicinity of the pipeline so that they can quickly contact EQT and emergency response agencies so that first responders can do what is necessary to make everyone in the area of the leak safe. Otherwise, a leak of gas that is odorless and colorless could go undetected without EQT adding the odorant.

Therefore, the Board of Supervisors of the County of Franklin does hereby request that EQT add a natural odorant in order to provide increased safety for the citizens of Franklin County, Virginia and those citizens in the other Counties who are impacted by the presence of the natural gas transmission pipeline."



Image, above, produced by Roanoke County GIS Department and shared via email from Darren Jones, GISP, GIS Analyst I, Roanoke County, on July 27, 2017. Mr. Jones' email described the image as a "rough representation of the derived streams and the locations of the related sinks overlayed on top of our aerial imagery." The aqua-colored dots are potential springs crossed by the MVP, which is represented by a purple line.

On July 27, EQT's Manager of Government Affairs, Maurice Royster, issued a letter in response, denying the County's request to add odorant to the MVP. Said the letter,
"The odorization of gas is regulated by the Code of Federal Regulations Title 49 Subtitle B Chapter 1 Subchapter D Part 192 Subpart L, section 192.625 (Odorization of gas). As a natural gas transmission line, the vast majority of MVP's route and related compressor station facilities are located in areas designated as Class 1 or Class 2; therefore, existing federal regulations do not require odorization be used for any segments of the MVP natural gas transmission project."

CONCLUSION

In light of (a) the need to add odorant to the gas flowing through the MVP as iterated by Franklin County in 2018, as well as (b) the known environmental and public health risks associated with the odorant used in gas pipelines, Mercaptan, BREDL offers the following actions for consideration by residents and administrators of all counties crossed by the MVP:

1. **TO PROTECT PUBLIC SAFETY** ⍰ collectively demand that EQT Corporation add the odorant, Mercaptan, to the gas in the MVP to maximize safety of communities crossed by the MVP

2. **TO PROTECT SAFETY OF INDIVIDUALS EMPLOYED AT GATE STATIONS AND RESIDENTS LIVING NEAR GATE STATIONS** ⍰ organize a public forum involving residents, county governments, EQT Corporation, PHMSA, and FERC to publicly consider the health risks of Mercaptan and the procedures, equipment, response protocols, and staff training required to deal with a Mercaptan leak or explosion

3. **TO PROTECT THE ENVIRONMENT** ⍰ organize a public forum involving residents, county governments, EPA, and Virginia Department of Environmental Quality to publicly consider the environmental risks of Mercaptan and the procedures, equipment, response protocols, and staff training required to deal with a Mercaptan leak into rivers, streams, wetlands, or groundwater.

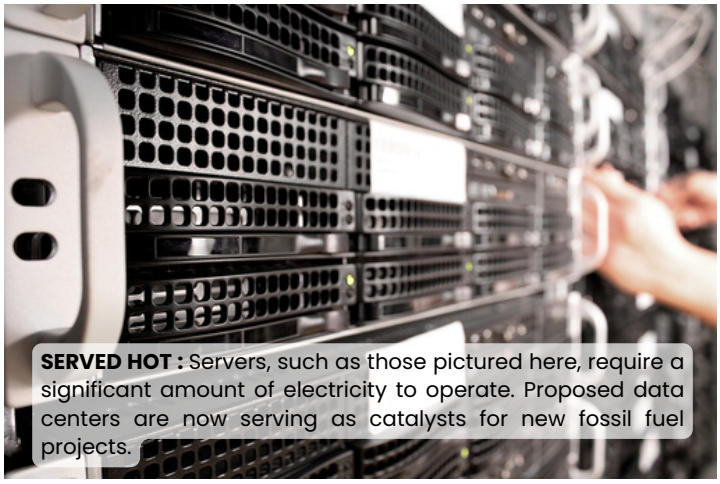
DATA CENTERS ON THE HORIZON

By: Jason Torian

The state of North Carolina is currently at the center of a large gas buildout led by Enbridge (formerly PSNC) and Duke Energy. Pipelines and gas storage facilities are planned for multiple counties throughout the state. The reasoning behind the expansion is often said to be reliability concerns, as utilities transition from coal, as well as increasing consumer demand. While a portion of this demand can certainly be attributed to increased cooling demands due to climate change, and the gradual transition to electric vehicles, it is by no means the main cause of this increase.

For many, it can be hard to imagine that the internet operates from physical locations. The information needed for cloud storage, internet video calls, internet searches, and more is stored in large buildings called data centers. Data centers are the backbone of the internet and modern IT in general. These buildings house a large number of servers used for processing and storing data, and networking. They require a continuous supply of energy and have excessive cooling needs.

With every new innovation has come the need for more data centers and more energy consumption. One Chat GPT search, for example, uses 16 oz. of water and 2.9 Wh (watt hours) of electricity. That is ten times more electricity than a standard Google search.[1]



SERVED HOT : Servers, such as those pictured here, require a significant amount of electricity to operate. Proposed data centers are now serving as catalysts for new fossil fuel projects.

Data centers consume so much electricity that they could potentially threaten power availability to homes and other industries. A single data center can use as much energy as 80,000 homes. Data centers are projected to consume as much as 9% of all U.S. energy by 2030.[2] Power constraints are already forcing some data centers away from population dense areas and into rural areas with more electric capacity.[3]

Energy demand in the United States is seeing a dramatic increase for the first time since 2005, largely because of the proliferation of data centers.[4] With that demand comes increases in toxic and carcinogenic particulates, and gases such as sulfur dioxide, nitrogen oxide, and carbon dioxide, all of which enter the air as a result of burning fossil fuels.

This increased demand has also given electric utilities an excuse to expand pipeline projects, such as those in North Carolina, and even request that shuttered facilities, such as Pennsylvania's 3 Mile Island nuclear facility, be reopened.[5]

Data centers also pose a threat to land that would typically be used for forests, agriculture, and even housing. In 2024, homebuilder Toll Brothers sold a 180 acre parcel of land in Loudon County, Virginia (often referred to as "Data Center Alley"), to be used for an undisclosed data center project. The company's CEO later said that they had received a $180 million offer to purchase the property, that they "simply couldn't refuse".[6]

Our planet is warming at a rapid pace, and it remains more critical than ever that we decrease our use of fossil fuels. With that said, there is no end in sight to the development of new technology and the growth of AI. There are steps that individuals can take to reduce the need for data centers. These include reducing our own use of cloud storage and using AI less frequently. Ultimately, however, we must demand that tech companies find ways to make data centers more efficient. This includes optimizing cooling systems and ensuring that the servers housed in these centers use the most energy efficient hardware. We must also demand that these energy behemoths be powered by their own clean renewable energy, rather than adding additional stress to the power grid. Several data centers currently get a small portion of their energy from wind and solar, but most of their electricity still comes from fossil fuels. In 2024, Google made a groundbreaking investment in a geothermal energy project that will ultimately power its two data centers in Nevada. While that is only 2 out of the 24 data centers that the company owns in the United States, it is a start. It also reminds us that tech companies have the ability to incorporate some level of environmental stewardship into their practices. As usual, the question remains, do they have the will to do so?

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58 MILLION ACRES OF FARMLAND IN DANGER OF DEVELOPMENT

By: Kathy Andrews

The US Department of Agriculture announced that 58 million acres of national forestland is now open to logging and development, including land in Alaska, Utah, and Montana that has been preserved for decades.

The Trump administration plans to revoke the Roadless Rule, a 2001 rule that protects nearly 60 million acres or 30 percent of national forest. This means wilderness areas are now open to mining, drilling, and logging. Climate experts say road construction could lead to more wildfires and harm wildlife habitat. The potential impacts on biodiversity, water resources, and untouched landscapes could have far reaching consequences.

The Trump administration previously removed roadless protections in the Tongass National Forest in Alaska in 2020, but the Biden administration restored them in 2023.

Environmental groups are expected to challenge Trump's decision in court.

HOW DOES POLLUTION IMPACT OUR WILDLIFE?

By: Renee Cail

On a daily basis the byproducts of our daily lives –sewage, exhaust, trash, agricultural and lawn chemicals, industrial and power plant emissions, and more enter our air, soil and water. These derivatives make their way into the natural environment and become pollutants, according to the National Wildlife Federation. Our planet is huge but it is unable to dilute or effectively absorb all the waste and chemicals that are produced by billions of people.

For decades the United States has made significant progress in reducing air and water pollution. Many point source pollutants have been identified and controlled to a certain extent. The pollutants can be traced to specific sources such as sewage plants, industrial plants, and waste water treatment plants. The chemicals and other hazardous pollutants continue to wreak havoc on wildlife and ecosystems. Animals' response to pollution and habitat degradation can include organ damage, weakened immune systems, and disruption in endocrine function.

There are many types of pollution that adversely affect our wildlife. Climate change pollution is understood as the relationship between the amounts of climate change pollution released into the atmosphere and the increase of surface temperatures around the globe. Other types of pollution include:

- persistent organic pollutants
- mercury, which is a naturally occurring heavy metal and can become one of the most harmful pollutants faced by fish and wildlife
- synthetic toxic chemicals such as PCBs and DDT (pesticides)
- harmful algae blooms, in which large numbers or colonies of algae or related organisms produce one or more toxins that can be dangerous to fish, wildlife, pets, and livestock
- air pollution like particulate matter, creating respiratory problems in animals similar to humans
- water pollution causing animals to ingest plastic or other pollutants leading to blockages or internal injuries
- acid rain, which can acidify water bodies, harming aquatic life and aquatic ecosystems
- land pollution, which can destroy habitats leading to displacement and decreased populations
- pollutants in the soil affecting plant growth and contaminating food sources for the animals
- chemicals from industrial waste, agricultural runoff and other sources contaminating soil and water and harming animals.

It is alarming that one-third of United States fish and wildlife species are at risk of extinction in decades to come. We must continue to collaborate with other organizations, engage politicians and community members to address this crisis. We will continue the work to organize and extend our outreach to bring awareness and education to the public in hopes of initiating public policy to decrease adverse impacts of pollution on our wildlife.

BREDL RELEASES CARE-4-AIR SITE 1 DATA REPORTS; SITE 2 AIR MONITORING HAS BEGUN

BY: CARE-4-AIR TEAM

BREDL has released our CARE-4-AIR Site 1 Data Reports. These reports include a compilation of data and analysis from our air sampling activities in Hamlet, North Carolina.

Our main Site 1 Report includes a project description, objective, goals, and details on pollutants monitored, emphasizing health impacts, emission sources, findings, limitations, and challenges. The data section provides graphical displays of data including hour and daily averages, time of day analysis, highest concentrations during the monitoring period, and wind and pollution roses to visualize the data. BREDL also screened our data with the nearest agency monitors.
Our secondary Site 1 Report includes the daily hour averages for each pollutant and any quality control comments for that day.

We have posted our Site 1 Reports and Fact Sheet on our project website at bredl.org/beast.

BREDL has begun collecting data at our Site 2 location, which will be disclosed after we have concluded our air monitoring at this site. There was a lengthy delay between Site 1 and Site 2 data collection as we waited for instruments to be calibrated at the factory. It took just over 11 weeks for this process including shipping time to be completed.

ON THE MOVE: BREDL's BEAST unit has completed its first deployment to Hamlet, NC. Monitoring has now begun at Site 2.

CARE-4-AIR Site 1 Air Quality Fact Sheet:
Hamlet, Richmond County, North Carolina

Monitoring Location: Hamlet, North Carolina (Site 1)
Monitoring Period: November 22, 2024 – April 7, 2025
What We Measured:

- Particulate Matter (PM2.5 and PM10)
- Nitrogen Oxides (NO, NO2, NOx)
- Total Volatile Organic Compounds (VOCs)

Key Findings:

- No exceedances of EPA health standards for PM2.5, PM10, or NO2 were found.
- VOC levels were generally low, although we did see significant spikes.
- Prescribed burns significantly impacted air quality on specific days, causing temporary spikes in PM levels. For example, a brief spike on March 9, 2025, reached hazardous levels (2739 ug/m3 PM10), and a day-long increase occurred on March 13, 2025, likely due to a burn.

Important Recommendations:

- Avoid prescribed burns on days when moderate to high PM levels are forecasted.
- Deploy mobile air monitors in communities during large-scale burns.
- Note: The monitoring period was limited to about 4.5 months, and VOC data measured only total VOCs. All equipment issues encountered were successfully resolved.

For more information contact: c4astaff@bredl.org

BREDL: WHO AND WHAT WE ARE

In March 1984, fifty citizens of Ashe and Watauga Counties met in the Mission House of Holy Trinity Church in Glendale Springs, North Carolina. Teachers and farmers, home-makers and merchants listened to the report of the Episcopal Church Women on the US Department of Energy's siting search for a high-level nuclear waste dump in the rain-rich east. Recognizing that the North Carolina mountains were a region at risk, the assembled group organized the Blue Ridge Environmental Defense League (BREDL) to protect their own backyard and those of other threatened communities.

Since then, the Blue Ridge Environmental Defense League has grown to be a regional community-based, nonprofit environmental organization. Our founding principles - earth stewardship, environmental democracy, social justice and community empowerment - still guide our work for social change. Our staff and volunteers put into practice the ideals of love of community and love of neighbor, which help us to serve the movement for environmental protection and progressive social change in Virginia, North Carolina, South Carolina, Georgia, Alabama and Tennessee.

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Does your chapter have a story to share in the League Line?
Submit your article to bredl@bredl.org!

View archived newsletters at www.theleagueline.org

BREDL Credo

We believe in the practice of earth stewardship, not only by our league members, but by our government and the public as well. To foster stewardship, BREDL encourages government and citizen responsibility in conserving and protecting our natural resources. BREDL advocates grassroots involvement in order to empower whole communities in environmental issues. BREDL functions as a "watchdog" of the environment, monitoring issues and holding government officials accountable for their actions. BREDL networks with citizen groups and agencies, collecting and disseminating accurate, timely information. BREDL sets standards for environmental quality, and awards individuals and agencies who uphold these standards in practice

Grassroots Campaigns

Nothing creates hopefulness out of helplessness like a successful grassroots campaign -and our chapters have a history of winning. For over three decades Blue Ridge Environmental Defense League chapters have protected their communities by stopping dangerous facilities and promoting safe alternatives. In the 1980's and 1990's, BREDL prevented a multi-state ThermalKEM hazardous waste incinerator, a southeastern nuclear waste dump and a national nuclear waste dump. In the 2000's, our coordinated grassroots citizens' campaigns have had further victories. We won a legislative victory with the passage of the NC Solid Waste Act, effectively blocking at least four multi-state mega-dumps. Our Person County chapter convinced their Board of Commissioners to reject expansion of the Republic Services landfill. Our Cascade, Virginia, chapter shut down a huge hazardous waste incinerator. We eliminated mercury waste from the Stericycle incinerator, shut down a tire incinerator in Martinsville, won the landmark environmental justice court decision in Greene County, North Carolina. Further, with our chapters we have protected air quality by blocking scores of asphalt plants, four medical waste incinerators, a PVC plant and a lead smelter, and passage by local governments of eight polluting industries ordinances. Our work on nuclear power and coal plants laid the groundwork for our new Safe Energy Campaign. Victories over twenty-four mega-dumps have resulted in our affirmative Zero Waste Campaign. Guided by the principles of earth stewardship and environmental justice, we have learned that empowering whole communities with effective grassroots campaigns is the most effective strategy for lasting change.

BREDL
c/o Virginia Staton, CPA
PO Box 2168
Boone, NC 28607

Annual Membership is only $20

Thank you for supporting Blue Ridge Environmental Defense League
It's easier than ever to **join**, **renew** and **donate** online.
Check out our secure online donation form and use your credit card at
www.BREDL.org
Or send your check to: BREDL, c/o Virginia Staton, CPA, PO Box 2168, Boone, NC 28607
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Chapter_____

Membership Amount: $ _____

JMZ Fund Donation: $_____

Janet Marsh Zeller Honorary Fund

The BREDL Board of Directors established this fund to honor the work of Janet Marsh Zeller, who founded the Blue Ridge Environmental Defense League and served as its executive director for over two decades.

The honorary fund supports BREDL's endowment and our long-term ability to serve communities. Individual gifts are accepted throughout the year. All donations to BREDL are tax deductible. Contributions to the fund will benefit the organization and honor the woman who gave so much to make our world better, one community at a time.