BLUE RIDGE ENVIRONMENTAL DEFENSE LEAGUE

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The LEAGUE LINE

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Inside Line:

List of articles inside.

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Winston-Salem residents seek legislative changes in wake of fertilizer plant fire

By Jason Torian

On January 31, 2023, residents of Winston-Salem's Piney Grove neighborhood gathered at the Piney Grove Baptist Church to commemorate the anniversary of the Winston Weaver fertilizer plant fire. Their program, which they named "Power and Praise: Blessing Through the Weaver Fertilizer Fire", gave residents the opportunity to recount the night of the fire, while also reflecting on the Piney Grove community's long and rich history.

The Winston Weaver plant, which housed around 600 tons of ammonium nitrate, caught fire one year earlier. Fearing a potentially disastrous explosion, thousands of residents were forced to temporarily leave their homes. While the plant has long since been bulldozed and the city has put in place new zoning regulations that will prevent the plant from reopening in its previous location, many residents still have lingering concerns. Chief among these concerns are the potential long-term health impacts of breathing the fumes released during the fire. Residents would also like to see accountability from those who allowed the business to operate in a dilapidated 80-year-old wooden building with no sprinklers. They would also like to see additional transparency with respect to the location of large amounts of potentially hazardous chemicals within the community.

Attendees listen to guest speaker, Rev. Karen Blue, during a service commemorating the fire. Photo: Jason Torian

"It's no surprise to us that something like this happened. There have been smaller fires at the plant before that didn't get any media attention," says Sabrina Webster, a lifelong Winston-Salem resident and a member of Piney Grove League for Change.

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Director's Report

Understanding Climate Change and Global Warming means taking action!

By Kathy Andrews, Executive Director

Do people understand climate change and global warming? Most studies by climate change experts indicate that people believe in climate change, but not enough. So, when an activist walks into a room to discuss the impact of PFAS, methane from gas, why we're fighting the Mountain Valley Pipeline, we must also take time to educate. We must break it down so that all people understand the dire consequences of climate change and global warming. Going to schools to provide educators with literature should be a part of our future planning.

We should have more young people like Greta Thunberg, the Swedish environmentalist, challenging world leaders and motivating young people everywhere to take a stand.

We must teach our children about climate change and global warming before it's too late.

We must explain that the major driver of rising temperatures is human generated gas emissions (carbon dioxide, methane, nitrous oxide) largely related to the burning of fossil fuels. We must explain the consequences of these toxic gas emissions.

These heat trapping emissions have resulted in more heat waves, poorer air quality, rising seas, storms, floods, and wildfires that affect the air we breathe, the food we eat, the water we drink, and the environment in which we live.

When it comes to our health, global warming threatens human health by amplifying existing health conditions and creating new ones. But still people connect climate change and global warming with a stranded polar bear, not an asthmatic child struggling to breathe who lives near a pipeline. Do they connect the dots when they see major storms, fires, and mudslides ruining homes and lives?

Global warming is so dangerous that scientists have determined that these public health challenges we face rival the health hazards of a lack of sanitation and clean water in the early 20th century.

Heat waves promote dehydration, heat exhaustion, and heat stroke while exacerbating heart, lung, and kidney disease, and flooding and heavy rains risk waterborne infections.

Catastrophic weather events also come with mental trauma. But despite these risks, most people in the U.S. still don't recognize climate change, or the way it damages human health. They seem dumbfounded and watch the next hurricane and flood destroy their property with aplomb that they will build back. Even rising seas that destroy their beachfront homes don't bother them. Most build back putting up sea walls and demanding their municipalities provide more sand to protect their seaside cottages.

Global warming and climate change are not taught in schools. In a small rural school recently visited in Pamplico, South Carolina, some of the young elementary students had an idea about climate change, but no real grasp of the implications of

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There is no away for PFAS…

By Therese Vick

Many claims are being made regarding "new" disposal methods for PFAS (also known as "forever chemicals") such as chemical treatment —and some old ones like incineration and landfilling. Our research indicates that, like dioxins and PCBs before them, there is no away for PFAS. So-called disposal is merely a shell game of moving PFAS from one environmental medium to another.

Some widely known sources of PFAS are industrial waste, wastewater treatment plants (WWTP), sludge, incineration, and municipal solid waste landfill leachate. However, lesser-known waste streams such as regeneration and disposal of depleted granulated activated carbon saturated with PFAS (also known as GAC, which is used to remove PFAS from drinking water although it's efficacy can vary), contaminated filters from reverse-osmosis filtration systems, and companies that "clean" PFAS contaminated vessels from facilities or waste brokers are also among the sources of reintroduction of PFAS into the environment.

- Incineration of PFAS-containing wastes can emit harmful air pollutants, such as fluorinated greenhouse gases and unknown products of incomplete combustion. Some PFAS will likely remain in the incinerator ash. Incinerator types include waste, sewage, and "thermal oxidizers." Firefighting foam (AFFF) has been sent to overburdened incinerator communities. Facilities that 'regenerate' or 'reactivate' GAC are re-releasing the chemicals into the air, and discharging what's left into WWTPs or surface waters.

- Disposing of PFAS-containing waste in a municipal solid waste landfill (MSWLF) results in PFAS-containing leachate which will end up being discharged into receiving surface waters. In North Carolina, there are no regulations addressing PFAS disposal in landfills-including PFAS laden GAC. No permits required, no notification to the host community.

- Industries that use or manufacture PFAS will often release liquid waste to wastewater treatment plants. From there, the chemicals re-enter the environment through the WWTP's discharge and from sludge that is land-applied.

- Chemical treatment is widely touted, however even EPA is skeptical.

Bottom line, current PFAS disposal practices only reintroduce them into the environment—lather, rinse, repeat. The only solution is for them to be banned.

If you have questions about PFAS or help organizing in your community contact staff@bredl.org

Wondering about EPA's new standards for PFAS in drinking water?

On March 16th, 2023, EPA announced proposed regulatory standards for six PFAS. According to the EPA, "There is evidence that exposure to PFAS can lead to adverse health outcomes." These standards are for Public and private water systems only- they are not for private well users. However, these six proposed for regulation are not the only PFAS that may be harmful.

Here are a few actions you can take:

- Contact your water provider. Ask them if they are monitoring/testing for PFAS. If so, request the most recent reports. They should be available digitally. We can help you with interpretation/explanation of what the reports indicate. Document every interaction.

- If they aren't testing, ask why not. If your communication is through email-save the emails. If by phone, take notes. Record the date, time, and person spoken to.

- Organize. If PFAS have been found in your drinking water, or not being tested for, get some friends and neighbors together to inform the community and talk about next steps, like whether to start a more formal organization. There's strength in numbers!

- Ask decision makers what their plans are to protect your community from these toxic chemicals in your drinking water. Go to town, city, or county meetings and speak. Media are usually there and can help get the word out.

Please contact BREDL staff@bredl.org if you would like more information or need assistance.

We all live downstream

(W-S residents—Continued from page 1)

In addition to those concerns, Piney Grove residents are concerned that something similar to the Weaver Plant fire could happen again in their own community, or at other sites in North Carolina. With this in mind, the group has begun reaching out to area lawmakers seeking legislation that might prevent future disasters. The group's goals center largely around changing building codes and insurance requirements

Updating building codes

The National Fire Protection Association (NFPA)'s Hazardous Materials Code determined fire sprinkler systems are a must in facilities such as Winston Weaver. They voted in 2015 to require the installation of sprinkler and fire detection systems in new *and existing* facilities. They proposed that this be accepted as the minimum level of safety for any building with over 1000 pounds of ammonium nitrate. The NFPA fire code recommendations already address ammonium nitrate and expressly enable the relevant authority to enforce construction requirements, like sprinklers, retroactively when warranted by dangerous conditions.

More stringent insurance requirements

A Chemical Safety Board investigation revealed that four years before the 2013 fertilizer plant explosion in West, Texas, the company was dropped by its insurance carrier for failure to address safety concerns identified during the inspection process. Investigations following the Winston Weaver fire found the plant had various electrical issues, and structural issues such as a leaky roof and untreated wooden walls that were soaking in ammonium nitrate.

Sabrina Webster (c) of Piney Grove League for Change, along with BREDL Community Organizer Jason Torian (l), met with State Senator Paul Lowe (r) to discuss the aftermath of the fire. Photo: Sabrina Webster

In the case of the West, Texas explosion, the $1 million general liability policy owned by West Fertilizer Company allowed for minimal safety inspections. The new policy was not nearly enough to cover the $230 million-plus damage to the town and its residents after the explosion. Piney Grove residents believe more stringent insurance requirements would motivate companies to identify and take care of hazardous situations early on.

Capping the amount of ammonium nitrate that can be stored at one site.

Listed below are a few examples to offer some perspective of just how much ammonium nitrate was stored at the Winston Weaver plant.

- 4 tons of ammonium nitrate were used by Timothy McVeigh to blow up a federal building (1995); 168 people were killed.
- 270 tons of ammonium nitrate were stored at the West Fertilizer plant in Texas (2013). When that plant caught fire, an explosion killed 15 people and left a 93 foot wide crater.
- 600+ tons of ammonium nitrate were stored at Winston Weaver (2022)

The regulation of ammonium nitrate storage has been a topic of debate on the federal level for quite some time. Capping the amount of ammonium nitrate that can be

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BREDL's Renee Cail honored at International Women's Day 4th Annual Recognition Breakfast

Renee Cail, President of Citizens for a Healthy and Safe Environment (CHASE), was recognized on March 31, 2023 at the 4th Annual Celebration of Women's History month at the Commerce Club in downtown Atlanta, Georgia. She received the award at the International Women's Day 4th Annual Recognition Breakfast.

Ms. Cail has worked tirelessly advocating for communities in her area as well as in neighborhoods out of her city. She does not hesitate to assist residents in communities of color in overburdened, underserved, neglected and deprived environments.

According to Ms. Cail, community organizing can be challenging. But she states, "Our environment is facing devastating impacts from climate change, reckless corporate greed and polluting industries. We must do more to prepare for generations to come." She feels environmental injustices and environmental racism must be stopped. She is hoping to educate developers as to how they can conduct business with measures that will mitigate environmental damage in future projects, especially those close to our neighborhoods.

Renee Cail (r) speaks at International Women's Day 4th Annual Recognition Breakfast as event organizer Dr. Diane Daniels Adoma (l) listens. Photo: Cail Family

Ms. Cail's organization is a chapter of Blue Ridge Environmental Defense League. She is a community organizer and staffer with BREDL. She enjoys strategizing with her fellow organizers who are also staffers with BREDL. Ms. Cail will continue to inform the public of toxic chemicals polluting our air, water and soil. Her passion for mobilizing communities remains. She is confident that people hold the power to chart their destiny and change lives.

Congratulations Ms. Cail for job well done!

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 to applicant organizations who are successful in raising matching funds equal to the amount of grant funding requested.

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

BREDL seeks MVP compliance with Clean Water Act via LiDAR

By Ann Rogers

On February 7, 2023, BREDL staff submitted comments to U.S. Army Corps of Engineers (USACE) requesting that they require Mountain Valley Pipeline, LLC (MVP, LLC) to conduct a thorough assessment of springs and associated headwaters impacted by the Mountain Valley Pipeline (MVP) as a requirement of the permitting process for the MVP under the Regulatory Program of the Corps (33 CFR 320-332) and Section 404 of the Clean Water Act. This article provides a summary of those comments.

History of Roanoke County's Involvement with LiDAR

In 2015, members of the Roanoke County Pipeline Advisory Committee (PAC - see description of this committee at www.roanokecountyva.gov/1628/Roanoke-County-Pipeline-Advisory-Committ) initiated communication with DEQ's Groundwater Characterization Program in Harrisonburg, VA where, since 2006, geologists have been developing a database of springs and wells in Virginia. Through communications with the Groundwater Characterization Program, Committee members learned that:

- Our existing information on springs in Virginia is incomplete.
- Springs are headwaters for many streams. The streams are discharge channels for the springs. Every mountain valley could have a spring at certain times of the year.
- Many tiny, unnamed headwater streams originating from springs do not appear on any topographic map. Their location is unknown except by people who have walked the mountains.
- Many of these springs may be intermittent, which means they originate higher on the mountain when the water table is high, during wet seasons, and lower on the mountain when the water table is low, during hot and dry seasons.
- In the interest of sediment control, any large-scale construction project should begin with a proper inventory of groundwater features such as springs, sinkholes, and wells.
- Light Detection and Ranging (LiDAR) is a technology that can be used to provide preliminary information on the location of springs and associated headwaters.
- Field surveys with GPS would be required to confirm the location of each spring and associated headwater stream identified through LiDAR.

In 2017, responding to inquiries from the 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 Roanoke County's portion of the Limits of Disturbance of the MVP.

During August, 2017, the County GIS staff further developed the LiDAR imagery to describe "potential streams". Roanoke County's GIS Analyst, Darren Jones, described these new LiDAR map images as ". . . a network of lines which could be theoretical streams based on quite a few high level algorithms which calculate the flow of direction and flow accumulation from the digital elevation model (DEM). What they do is calculate the potential of water flow, starting at the highest elevation available, and following

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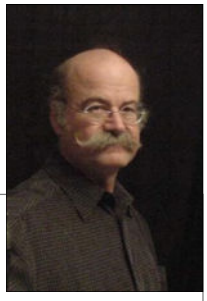
The Last Frontier

By Lou Zeller, Strategic Advisor



Alaska is often referred to as the "last frontier." But the point of view which generates this term is uniquely European, the perspective of the descendants of settlers and immigrants, not the people who crossed the land bridge from Asia during the Ice Age.

"Native people have lived on this landscape for at least 10,000 years, if not longer," said Charles F. Sams III, who was appointed in 2021 to lead the National Park Service and is its first Native American director.[1]

Europeans' so-called discovery of Alaska dates to 1741 with a Russian voyage led by Danish navigator Vitus Bering, when fur trading was the principal activity. In 1867, the United States paid Russian Tsar Alexander $7.2 million for his claim to the territory. The Russian Empire needed funds to recover from its losses in the Crimean War. Coming so soon after the devastation of the American Civil War, the sale was dubbed "Seward's Folly" after President Andrew Johnson's Secretary of State who had secured the deal. No payment was made to the native Alaskans who had lived there for millennia.

The 20th Century brought statehood and the discovery of vast reserves of petroleum in Alaska. The first commercial oil discovery in Alaska came in 1957. And in 1977 the Trans Alaska Pipeline System began transporting crude from Prudhoe Bay on the North Slope 800 miles to its southern terminus, Valdez. Alaska's North Slope borders the Arctic Ocean and includes the National Petroleum Reserve, an undisturbed 23-million-acre tract of land, the largest in the nation. Most of the Reserve is under the control of the federal Bureau of Land Management (BLM).

On March 13, 2023—after decades of legal wrangling, interim approval by the Trump Administration, a reversal in court—the Biden Administration gave its approval of petroleum leases for the Willow Project in the National Petroleum Reserve. The leases granted to ConocoPhillips allow the company to extract upwards of 576 million barrels of oil over a thirty-year period of operation. The resulting greenhouse gas emissions would be equivalent to the emissions of 75 new coal-fired power plants, one-third the existing fleet nationwide. The Willow Project includes infrastructure: local pipelines, an airstrip, roads and bridges, a central processing facility, a gravel mine and 200 new wells.

Public health and social justice factors were dismissed by those eager to approve the $8 billion project. Opposed are the City of Nuiqsut and Native Village of Nuiqsut, the population of which are 92% Native Alaskans. These isolated communities lie along the border of the National Petroleum Reserve. An environmental analysis for the Willow Project identified negative local impacts resulting from the releases of black carbon particles, PM 2.5, affecting those living closest to drilling operations.

Trans Alaska Pipeline System (TAPS) taken June 20, 2022 by Louis Zeller

"If the BLM knows that our health is deteriorating, how can it in good conscience allow an activity to go forward, which will make our health worse?" ask Nuiqsut city mayor Rosemary Ahtuangaruak, vice mayor Carl Brower, and president of the Native Village of Nuiqsut.[2]

In an attempt at compromise, the Interior Department placed three million acres of the Arctic Ocean "indefinitely off limits" to exploration and for the protection of wildlife. Of course, indefinitely is an unspecified period of time. And a pipeline must be fed.

The Alyeska Pipeline Service Company was created by oil companies in 1970 to construct and operate the Trans Alaska Pipeline System (TAPS). Today, majority shareholders are ExxonMobil and ConocoPhillips. On its website, Alyeska calmly discusses pipeline throughput, round-the-clock operations and the problems created by dwindling oil volumes in its system. And it offers a solution.

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"Less oil in TAPS means slower-moving and colder oil, which creates complicated operational challenges. Alyeska and its owner companies continue analyzing the risks, options and challenges of declining throughput while creating mitigations and validating other potential steps through laboratory and field tests. **The best long-term solution for TAPS operations is more oil**." [3]

More oil. The petroleum industry's solution to the crisis caused by the burning of fossil fuel is more oil.

Charles Sheldon spoke in 1908 on the preservation of Denali—the tallest peak in North America—in a national park, *to celebrate restraint as an expression of freedom*. In other words, voluntarily limiting one's actions for the greater good preserves liberty. Sheldon was talking about caribou, eagles and bears. Today, the Last Frontier may be where we finally set a limit on industrial destruction for the preservation of Planet Earth.

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[1] "Meet the New Man Behind the National Park Service" *The New York Times*, June 24, 2022, https://www.nytimes.com/2022/06/24/travel/national-park-service-director.html

[2] "What to know about the Just Approved $8B Willow Project" https://www.wellandgood.com/willow-project/

[3] Alyeska website, https://www.alyeska-pipe.com/historic-throughput/

Image: Alaska License Plate, https://commons.wikimedia.org/wiki/File:Alaska_2020_License_Plate.jpg, This image is licensed under the Creative Commons Attribution-Share Alike 4.0 International license.

PFAS public notification bill dies in VA General Assembly

By Mark Barker

Senate Bill 1013, which would have required some general public notification for four PFAS contaminants, died in the Virginia General Assembly 2023 Session.

SB 1013 passed the Senate Agriculture, Conservation and Natural Resources with a substitute on a vote of 12 to 0. In the full Senate, the bill once again passed unanimously on a vote of 38 to 0.

However, SB 1013 met a different fate in the House. It was sent to a subcommittee of the House Agriculture, Chesapeake and Natural Resources Committee where it was voted to be left on the table with a vote of 6 to 4. The vote was along party lines.

Senator John Edwards of Roanoke filed the bill in the Senate on behalf of BREDL staff member Mark Barker.

Mark was dismayed that the Spring Hollow Reservoir GenX contamination was kept from the public for nearly 3 years.

SB 1013 would have required public notification via the annual water quality report whenever waterworks tests found concentrations exceeding 10 parts per trillion (ppt) for GenX, 2,000 ppt for PFBS, or 4 ppt for PFOA or PFOS.

Until public notification is required, BREDL recommends that waterworks customers – no matter where you reside – contact your drinking water supplier and ask if they are testing for PFAS and, if so, request a copy of the sampling results.

EPA is proposing a National Primary Drinking Water Regulation to establish legally enforceable levels, called Maximum Contaminant Levels (MCLs), for six PFAS known to occur in drinking water. The six PFAS are PFOA, PFOS, PFNA, PFHxS, PFBS, and GenX chemicals. This rule would require Tier 2 public notice when testing exceeds the MCL. Tier 2 requirements would include that public water systems provide public notice as soon as practical, but no later than 30 days after the system learns of the violation. Community water systems would require notice by mail or other direct delivery to each customer receiving a bill.

EPA is accepting comments on this proposed rule through May 30, 2023. Regulatory requirements would go into effect three years after the rule has been finalized. The proposed rule was published in the March 29, 2023 Federal Register.

(LiDAR—Continued from page 6)

the topography of the land, to points where each line joins with others, thus generating a potential network of streams."

Assessing headwaters' eligibility for protection under Clean Water Act using LiDAR

The January 18, 2023 Federal Register contains an article announcing the release of the newly-revised definition of "Waters of the United States", which are the waterbody types eligible for protection under the Clean Water Act. The types of streams for which we seek protection – headwater streams – are referred to as "tributaries" under the Clean Water Act. In order to receive protection under the Clean Water Act, as recently revised, tributaries must meet at least one of two criteria (called "Standards"): (1) the Relatively Permanent Standard and (2) the Significant Nexus Standard.

The January 18, 2023 Federal Register (*Federal Register*, Vol. 88, No. 11, January 18, 2023, Revised Definition of "Waters of the United States", pages 3004-3144) offers a section titled, "Tools Available To Determine Whether a Tributary Meets the Relatively Permanent Standard". This section recommends the use of LiDAR as a tool for assessing whether a tributary meets this Standard. We offer the following citations from that Federal Register:

- "Elevation models, including those based on light detection and ranging (LiDAR) derived data, may also illustrate tributary connectivity and flow patterns, as well as topography."

- "The increasing availability of LiDAR-derived data can also be used to help implement this rule. Potential LiDAR-indicated tributaries can be correlated with aerial photography or high-resolution satellite imagery interpretation and USGS stream gage data, to reasonably conclude the presence of an OHWM [Ordinary High Water Mark] and shed light on the flow characteristics."

- "Where LiDAR data have been processed to create elevation data such as a bare earth model, detailed depictions of the land surface are available and subtle elevation changes can indicate a tributary's bed and banks and channel morphology. Visible linear and curvilinear incisions on a bare earth model can help identify the flow characteristics of a water in greater detail than aerial photography interpretation alone. Several tools (*e.g.,* TauDEM, Whitebox, GeoNet) can assist in developing potential stream networks based on contributing areas, curvature, and flowpaths using GIS."

Thus we see that the LiDAR analysis of the MVP area of disturbance conducted in 2017 by Roanoke County can and should be utilized as the starting point for an extensive re-evaluation of the waterbodies that will be potentially harmed by construction of the MVP. This re-evaluation of waterbodies should be required by the USACE as part of the permitting process for the MVP under Section 404 of the Clean Water Act.

BREDL's request to USACE

The cumulative impact of the MVP's waterbody crossings in mountainous areas imposes an unacceptable level of impairment to the affected aquifers.

LiDAR mapping should be utilized as the starting point for on-the-ground field reconnaissance to confirm the presence of currently unmapped springs and headwaters along the entire route of the MVP and all its access roads. These springs and headwaters should be assessed for protection under the Clean Water Act as tributaries, via their eligibility as meeting the Relatively Permanent Standard and the Significant Nexus Standard. Digital tools described on page 3087 of the January 18 Federal Register under "Tools Available to Determine Whether a Tributary Meets the Relatively Permanent Standard" should be employed as well.

Without a comprehensive effort at mapping, digital analysis, and field reconnaissance of the springs and headwaters potentially impacted by the MVP, the USACE will not have sufficient information to issue a permit for the MVP.

(W-S residents—Continued from page 4)

stored in one place could potentially prevent future incidents or, at the very least, lessen their impact.

While no one in the Forsyth County, North Carolina legislative delegation has yet agreed to sponsor legislation relating to the Winston Weaver fire, several have been willing to listen to ideas. The residents of the Piney Grove community feel a duty to protect others who face similar hazards. Says Webster, "The elders in this community have been fighting this fertilizer plant for years. Now it's up to state and local officials, and the owners of the plant, to ensure that the soil and water are clean, the health of the residents is monitored, and to make sure that nothing like this is allowed to happen to any other neighborhood in Winston-Salem."

(Climate—Continued from page 2)

climate change and global warming. They had heard about it, but had no clear understanding of the consequences, though most knew about the recent catastrophic storms that flooded their homes in the low country.

Gallop has conducted a poll each March since 2001 asking the American public their opinions regarding the quality of the environment. In the March, 2022 poll, 44% of respondents said they were a "great deal" concerned about the environment. 47% gave this response in 2017 and 2019, and 46% in 2021. Prior to 2017, the percentage of respondents expressing a "great deal" of concern over the environment ranged from 31% in 2014 to 43% in 2020. In the 2022 poll, only 18% of respondents rated the overall quality of the environment in the U.S. as "poor", whereas 32% rated it as "good". The percentage of respondents declaring a "great deal" of concern about global warming/ climate change was 43% in 2022, compared to 46% in 2020, 44% in 2019, and 45% in 2017. Approximately 700 people responded to the 2022 poll.

Studies by the Yale Project on Climate Change Communication and the George Mason University Center for Climate Change found that 61 percent of adults have given little thought to the health consequences of global warming. Do they see the connection between a woman with cancer who drinks well water and lives near a contaminated dump or do they see glaciers melting in Alaska and think they are far removed?

One way to get across to people that global warming is real and could be the cause of your cancer, asthma, and respiratory problems is through their family physician. Doctors have the opportunity not only to educate patients, but work together collectively and urge legislators to reduce greenhouse gas emissions. They could educate their patients about global warming and the consequences of allowing fossil fuel companies to impact poor vulnerable communities with no consequences. All health professionals can help.

As legislators try their best to continue to build the Mountain Valley Pipeline, allow Dominion Energy to continue to control the court system and regulators, and push unnecessary pipelines in the Deep South impacting the poor and vulnerable, President Biden compromises to allow oil production in Alaska's North Slope through the Willow Project. At the same time Biden has committed to help environmentalists with his recent inflation bill, a bill many activists say puts no major penalties on fossil fuel companies. Encouragement is not enough to change a system based on greed and a lack of public education. The fossil fuel industry is counting on our children not learning about the dire implications of global warming. As activists, let's try to change that by going to schools and working with interns.

In Our Backyard is BREDL's Podcast where we discuss environmental issues that are right in our backyards. Topics include coal plants, fracking, pipelines, and much more. This podcast takes a deep dive into these topics and talks with people who are on the ground fighting for the health and safety of their communities as well as protection of the planet. Host Jenn Galler always interviews great guests! **Search for "In Our Backyard Podcast" on your podcast app or go to https://anchor.fm/bredl**

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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.

Grassroots organizing was a cornerstone of our early all-volunteer organization. One of our first multi-county boards of directors adopted our credo, which embodies our mission statement:

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.

Moving into the future

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.

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.

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Executive Assistant
Mark Barker

Sustainable Economic Development Coordinator
Therese Vick

Grant Writer/Community Organizer
Ann Rogers

Development Director/Community Organizer
Jan Haagensen

Community Organizers
Renee Cail
Jenn Galler
Jason Torian

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

Contact BREDL to help organize your community and plan events to educate others about your issue and expand your membership so you can win!

BREDL is a regional, community-based nonprofit environmental organization founded in 1984. BREDL encourages government agencies and citizens to take responsibility for conserving and protecting our natural resources. BREDL advocates grassroots involvement in environmental issues. Protecting children's health from environmental poisons, empowering whole communities to engage in crucial decision making, and changing the balance of power to prevent injustice are key components of our work.

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
All donations are tax deductible.

Name_____

Street_____

City/State/Zip_____

Email_____

Phone_____

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.