

Honor Banvard

From: Tony Long <tlong@ohiochamber.com>
Sent: Friday, May 5, 2023 1:39 PM
To: JCARR1
Subject: Letter of Support Proposed Rule 1501:155-1-01
Attachments: JCARRSupportRule1501155101May2023.pdf

Enclosed is the Ohio Chamber of Commerce letter supporting the adoption of Rule 1501:1551-01. We believe the rule and referenced standard lease meet all the statutory requirements and should proceed without delay.

Respectfully Submitted,

Tony Long



Tony Long
General Counsel
Ohio Chamber of Commerce
34 South 3rd St., Columbus, OH 43215
614-629-0910 desk
614-425-0921 cell
www.ohiochamber.com



May 5, 2023

The Honorable Jamie Callendar
Chair, Joint Committee on Agency Rule Review
77 S. High Street
Columbus, OH 43215

RE: Ohio Administrative Rule Number 1501:155-1-01 – Standard Lease Adoption

Dear Representative Callendar:

On behalf of the Ohio Chamber of Commerce I am writing to share our support the adoption of Ohio Administrative Rule Number 150:155-1-01 regarding the standard lease adoption proposed by the Oil and Gas Land Management Commission, a commission of the Ohio Department of Natural Resources.

The U.S. Energy Information Administration notes that the Appalachian Basin, spanning Ohio, Pennsylvania and West Virginia, would have been the third-largest natural gas producer in the world the first half of 2021, behind Russia and the rest of the United States. Furthermore, Cleveland State University reports that between January 2011 and June 2020 there was \$90.6 billion in shale-related investments in Ohio, with oil and natural gas producers in Ohio paying nearly \$850 million in ad valorem taxes directly to local governments and schools. Finally, in the first two quarters of 2021, oil and natural gas producers paid more than \$1 billion in royalty payments to Ohio landowners.

Recently, the Ohio Chamber of Commerce published its "*Blueprint for Ohio's Economic Future*," a comprehensive policy report focusing on the key areas for economic growth and improvement for the state of Ohio. This study found that Ohio could stand to realize approximately \$200-\$220 million in new revenue from leasing state minerals just within "Tier I" lands, or small acreages of state-owned minerals currently in producers' prospective drilling units and surrounded by their contiguous blocks of acreage. These projected revenues do not include those that could be derived from leasing "Tier II" acreage, or larger tracts of acreage in the thousands of acres.

Ohio Revised Code Section 155.31 (A) states, *"It is the policy of the state to promote the exploration for, development of and production of oil and natural gas resources owned or controlled by the state in an effort to use the state's natural resources responsibly."* We recognize and note that leasing state minerals is a policy conversation which started more than a decade ago when Governor John Kasich signed H.B. 133 that created the Oil and Gas Leasing Commission in 2011.

Ohio now has a unique window of opportunity to finally realize this policy goal with the adoption of the rule and standard lease attached to the rule. Adoption of this rule and use of the lease will finally unleash more economic opportunities for Ohioans and provide additional energy security for Ohio and the United States with this additional supply of energy. We believe the rule and standard lease form meets all the statutory requirements and should proceed without delay.

The Ohio Chamber of Commerce has long held a position that supports the development of all energy sources – an all-of-the-above energy policy. And with that policy position in mind, the Ohio Chamber of Commerce strongly supports the adoption of this rule and the benefits it will create for all Ohioans.

Respectfully Submitted,

A handwritten signature in blue ink, appearing to read "Tony Long", is positioned above the printed name and title.

Tony Long
General Counsel
Ohio Chamber of Commerce

Honor Banvard

From: Steve Cochran <stevenlc@roadrunner.com>
Sent: Monday, May 8, 2023 3:39 PM
To: JCARR1
Subject: Oil and Gas Land Management

We know that access to natural environmental areas is important to human health. Not only does it have a positive effect on one's psyche, it has added health benefits with lowered blood pressures, reduced stroke and heart disease, and the incidence and severity of psychiatric disorders such as chronic anxiety and depression. Allowing oil and gas drilling in our state's parks will seriously compromise these advantages. This is, of course, completely outside the whole issue of contribution to global warming, which has the greatest threat to human health, security and happiness. Leasing out public lands for fossil fuel extraction is a bone-headed and wrong thing to do. Please consider carefully what is at stake.

Thank you,

Steven L Cochran, MD

Honor Banvard

From: Shelly Corbin <shelly.corbin@sierraclub.org>
Sent: Monday, May 8, 2023 11:31 AM
To: JCARR1
Subject: JCARR Hearing Testimony/Witness Slip
Attachments: corbinwitness-slip-jcarr-5-25-22.pdf; Shelly Corbin May 9th JCARR Testimony.pdf

Good Morning,

I am submitting testimony and the witness slip for tentative agenda item 14. Department of Natural Resources - Oil and Gas Land Management Commission, Rule Number 1501:155-1-01 Standard lease adoption. I will be testifying in person. Please let me know if you have any questions or concerns. Thank you.

Shelly Corbin/Takóni Kókipešni ([hear my name](#))
Itázipčo/Mnicoujou - Lakota
Campaign Representative - Ohio
Beyond Dirty Fuels Campaign
(605) 850-1474
Represented by the Progressive Workers' Union

May 9th, 2023

Joint Committee on Agency Rule Review

Regarding: Rule Number 1501:155-1-01 Standard lease adoption.

Dear Members of the Commission,

I'm here today on behalf of our 19,000 members and 46,000 supporters of the Sierra Club across Ohio. We are requesting that the Joint Committee on Agency Rule Review consider our and citizens' efforts today to request for public participation in the nomination process for the state-owned lands for oil and gas drilling. We also request the Committee strengthen the proposed rule 1501:155-1-01 and adopt a process that the Ohio Department of Natural Resources would follow in the standard leasing process.

Specifically, we are requesting,

- The commission must allow at least 60 days for public comment from the time the oil and gas industry nominates a parcel for oil and gas extraction to the time the commission meets to make a decision.
- Notice for each nominated parcel must be posted on the commission's public website at least 60 days in advance and remain on the website through the close of the commenting period.
- The commission must create an email notification list, with signup readily available on the commission website, that provides direct email notice of each nominated parcel at least 60 days in advance of a decision date.
- Each notice must specify the date on which the notice was first posted, the procedure for providing public comment, and the date and time at which public comment is due.
- Each notice must provide electronic access to the location and map of the parcel nominated for oil and gas extraction.
- Each notice must include a list of factors the commission will consider in making a decision about whether to allow oil and gas extraction on the parcel of public land.

Why

1. A 2022 Physicians for Social Responsibility found that forever chemicals have been used in 101 Ohio oil and gas wells in eight Ohio counties, mostly in the eastern portion of the state. These chemicals are soon to be regulated under the superfund rules, which govern the most dangerous chemical pollution sites. The report's findings raise concerns that Ohioans may unknowingly be exposed to highly hazardous substances that break slowly in the environment and have been associated with cancer, pregnancy complications, high blood pressure, and other harms to human health.
<https://psr.org/oil-and-gas-companies-have-used-pfas-in-ohio-wells-trade-secret-laws-limit-publics-ability-to-know-full-extent-of-use/>

2. Childhood Leukemia had been linked to oil and gas drilling in a study conducted in our neighboring state of Pennsylvania. The study found that pregnant women exposed to oil and gas pollution on a routine basis gave birth to children 2 to 3 times more likely to develop Acute lymphoblastic leukemia, a type of cancer.
<https://thehill.com/policy/equilibrium-sustainability/3604700-children-who-live-near-fracking-sites-at-birth-face-increased-risk-of-leukemia-study/>
3. 2022 Study finds fracked gas production is linked to low birth weight in a national study. Low birth weight is associated with higher rates of infant mortality, poor lung development, problems with growth and cognitive development, and increased risk of health problems later in life—including diabetes, heart disease, high blood pressure, and developmental disabilities.
<https://www.ehn.org/fracking-low-birth-weights-2658468031.html>
4. It could be argued that the rules proposed today don't meet the requirements to pre-empt HB 507 because all they do is create a standard lease form, and they create **no** process for how lease requests will actually be considered by the Commission. Therefore, if the Commission denies a permit in the future, the Commission could be sued because (the operator would argue) HB 507 is still in effect, and under its terms all lease requests must be approved.

The current rules do not impose any binding requirements for what the government must consider when approving or denying oil and gas leases on state lands. The Commission has created certain non-binding guidelines to guide its decisions. But the use of non-binding guidelines is not enough to ensure the government properly considers the lasting destruction the oil and gas industry causes to the environment and ourselves. The continuation of poisoning the land, ourselves, and the next generations needs to be considered when considering what rules and regulations are in place. These insufficient rules do not allow for public comment and participation or create any clear process by which decisions will be made. When it comes to state lands that belong to the public, we as citizens and living beings have a right to voice our concerns. We call on the commission to increase public participation and strengthen proposed Oil and Gas Land Management Rules to ensure a standard leasing process that includes public participation and rules that hold the oil and gas industry accountable to the environmental destruction and clean up necessary and doesn't leave the burden on public taxpayers.

Thank you,

Shelly Corbin
Beyond Dirty Fuels Campaign Representative
Sierra Club
Ohio

Honor Banvard

From: Cathy Cowan Becker <becker.271@gmail.com>
Sent: Sunday, May 7, 2023 11:21 PM
To: JCARR1
Subject: Testimony for 5/9 JCARR meeting
Attachments: JCARR Testimony - CCB.docx

Hello, please find attached my testimony for the JCARR meeting on 5/9. I don't know yet if I will be able to attend in person - it depends on results from a covid test.

Just let me know if you have any questions.

Thank you,

Cathy Cowan Becker
she/her/hers
937-271-1247

JCARR Testimony
ODNR Rule 155-1-01
Cathy Cowan Becker
May 9, 2023

Chair Callender and members of the Joint Committee on Agency Rule Review,

Thank you for the chance to submit testimony. My name is Cathy Cowan Becker, and I am a dedicated user of Ohio's state parks and other public lands. I would like to provide some comments regarding Draft Rule 155-1-01, which would govern oil and gas extraction on Ohio public lands.

I am part of a group of Ohio citizens that has been engaging in the rule-making process with the Oil and Gas Land Management Commission since HB 507 passed last December, mandating fracking on Ohio public lands. Through our efforts:

- 673 people sent in written comments and 15 testified in person at the commission's February 1 meeting.
- 575 people sent in written comments and 16 testified in person at the commission's April 10 meeting.

Keep in mind that our citizens group is made up of volunteers, and many of us took time off work and drove from all corners of the state to testify in person at the ODNR meetings. We are the public who own and use Ohio public lands and have by far the most stake in what happens to them.

Despite this, the Oil and Gas Land Management Commission has all but ignored our concerns and requests, while bending over backwards to cater to entities that frack the Muskingum watershed, and industry trade groups that wanted – and got – changes that enable them to frack our protected lands.

Here are examples of our requests and concerns that were ignored or shut down:

1. Lack of procedures for consideration of public input.

We asked the commission to modify Rule 1550-1-01 to include

- 60 days public notice of any meeting to decide on a lease nomination
- Notice posted on the commission website
- Parcel nominations sent to an email list
- Notice specifying the deadline for submitting input
- Electronic maps of the parcel site
- Citation of the statutory factors the commission will consider in its decision

None of that was included in the draft rule. We were told it would be covered by agency guidelines, but have not yet seen these guidelines, which the commission would be free not to follow regardless.

2. Surface use impacts to public lands, especially state parks

In signing HB 507, Gov. DeWine ordered ODNR not to allow surface use impacts in Ohio state parks. Surface use refers to things like frack well pads, pipelines, access roads, timber removal, or water withdrawal.

Yet the original lease form instructed oil and gas companies that if they want surface impacts, they can go directly to the state agency that manages the public land they want to frack and create a separate agreement to get the surface use they want. This agreement would take place after the parcel lease nomination has been approved, without any public notice or chance to comment.

We brought up this obvious discrepancy to the Oil and Gas Land Management Commission, asking that they require oil and gas companies to inform the commission up front, at the time they nominate a parcel for extraction, of any possible plans for surface use impacts. This would allow both the commission -- and the public -- to make an informed decision about leasing a nominated parcel.

But instead of asking for more information, the commission simply removed all references to surface use impacts from the lease form and resubmitted it to JCARR. This does not solve the problem, but instead buries it further out of public view. Oil and gas corporations can still make separate agreements with state agencies to get surface use impacts -- and such agreements will still be out of the view of the public.

No one will know a frack rig is being planned in one of our state parks until construction begins -- and by then it will be too late. That is totally counter to the spirit and letter of the statute which says public input and objections to a project must be taken into account during the nomination process.

3. Impacts of fracking on health, climate, and environment

Our public lands are supposed to be a protected refuge for people to recreate and for wildlife to live in clean natural surroundings. Fracking is incompatible with these uses.

Numerous studies over more than a decade show that the toxic chemicals in frack water cause cancer and other serious health issues. Physicians for Social Responsibility has compiled a compendium of this research each year for the past nine years. The 2022 compendium contains 2000 abstracts of and links to medical, scientific, and investigative reports.

Fracking uses millions of gallons of fresh water, water that is permanently contaminated with toxic chemicals and cannot be put back into the ecosystem. Fracking creates hundreds of truck trips per well on rural roads not meant to handle this traffic. Fracking either harms vegetation and wildlife directly or drives them to other areas -- the opposite of what we want in our state parks.

Fracking releases a lot of methane, which is 80 times more potent as a greenhouse gas than carbon dioxide. Methane emissions from oil and gas operations have exploded due to leaks and flares from fracking. Methane emissions from the energy sector are estimated to be 70% higher than official figures.

This is happening at a time when the world's scientists have issued a "final warning" to humanity, saying we must cut greenhouse gas emissions in half by 2030 if we want a chance of a livable planet. The only way to slow near-term warming is to reduce methane emissions. That's not going to happen if we are fracking our public lands.

Despite the overwhelming evidence about the harms of fracking to our health, climate, and environment, the Oil and Gas Land Management Commission has yet to utter the words "health" or "climate." The commission has no climate scientists, no health professionals, no biologists who can speak to these issues -- nor do they listen to members of the public who do have these credentials.

4. Claims that fracking is a source of revenue for tax cuts

Senate President Matt Huffman has claimed that revenue from fracking can be used to fund a flat tax. The facts say otherwise.

A study by Ohio River Valley Institute found that Ohio's seven eastern counties in the shale play – Belmont, Carroll Guernsey, Harrison, Jefferson, Monroe, and Noble – have all seen declines in jobs, income, and population since the fracking boom began.

Even if fracking our public lands could provide some revenue, it would taper off after a few years as frack wells run dry. The industry's own proposals say fracking projects would end in six years.

What does provide ongoing income isn't polluting and degrading our public lands – it's preserving them. An Ohio State study found Ohioans take 171 million outdoor recreational trips each year, spending \$5.9 billion, employing 132,790 workers, and adding \$8.1 billion to our state economy each year.

No one wants to hike, camp, birdwatch, fish, or hunt next to where frack rigs are injecting millions of gallons of toxic water into the ground and flaring off methane in the air. Why would we put our entire outdoor tourism industry at risk to enrich the oil and gas industry?

Yet again, the concerns of the public who owns and uses our public lands have been ignored in favor of catering to the profits of a dirty and destructive industry that doesn't care what it destroys for greed.

Conclusion

These are examples of concerns and requests expressed by literally thousands of comments and testimonies from the public that owns and uses the state parks and other public lands now being forced into fracking. And all these concerns and requests have been almost completely ignored.

Ohio statute 155.33 requires the Oil and Gas Land Management Commission to take public comments and objections into account when considering oil and gas extraction on public lands. Please send Rule 155-1-01 back to the Oil and Gas Land Management Commission with instructions that they incorporate these concerns into the draft rule and resubmit it at a later date.

Honor Banvard

From: Randy Cunningham <randino49@gmail.com>
Sent: Sunday, May 7, 2023 8:09 PM
To: JCARR1
Subject: May 9 JCARR hearing.

Dear Commissioners of JCARR,

I think it is in your interest to bend over backwards when it comes to transparency in the allocation of fracking leases in our (not the oil and gas industries') public lands, and transparency begins with openness to public input. There cannot be enough transparency and public input in your deliberations. The critics of the original HB 507 and the program to frack our (not the oil and gas industries') lands are not only trying to protect **our** lands, but they are also trying to protect you from scandal and the suspicion that you exist merely to serve the interests of the oil and gas industries. In post HB 6, and a post-conviction of former speaker Householder world, this is a deal you can afford. You are at the bottom of a hole. Quit digging. Listen to us. If you don't, then the fuse is lit for future scandal.

Randy Cunningham
3623 West Blvd.
Cleveland, OH 44111
216-245-1073

Honor Banvard

From: terrylynn grange <tlg_co@hotmail.com>
Sent: Sunday, May 7, 2023 9:37 PM
To: JCARR
Cc: Cathy Cowan Becker
Subject: Rules re Oil & Gas

I would like to make sure we are considering all the possibilities before we allow drilling underneath state lands.

How will we insure water land and air are not contaminated? A trust fund should be established to help pay for health effects and to remedy damage to habitat.

The chemicals used should not be proprietary, they should be public knowledge.

Dewine says there will be no impact on the surface. How can we guarantee that? What happens if there are leaks?

Terry Grange
1037 Robinson
Marion OH 43302

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Honor Banvard

From: Roxanne Groff <roxannegroff1227@gmail.com>
Sent: Monday, May 8, 2023 11:09 AM
To: JCARR1
Subject: Comments on Rule Number 1501:155-1-01
Attachments: JCARR comments Dear Chairman Callendar.docx

Please find comments attached.

Roxanne Groff
Amesville Ohio 45711
740-707-3610

Dear Chairman Callender and members of JCARR committee,

I have been following the Oil and Gas Land Management Commission's work since December 2022. I submitted comments and testified at the April 10 public hearing on Rule Number 1501:155-1-01. I would like to give my support to the adoption of the rule package before you only in that it allows OGLMC to begin its statutory authority of oversight of the leasing of state-owned mineral rights. Unfortunately, however, I cannot do that. The rule package is inconsistent with the clear, unambiguous intent of the General Assembly set forth in R.C. 155.34.

I share the concerns of hundreds of Ohioans as to what has been purposefully left out of the rule package. Over 1,300 comments were submitted to the OGLMC during two public comment periods for this rule package. OGLMC has refused to grant the public its requests for more rigorous public engagement and participation. The public has insisted on the following points and has discussed these points with the chair of OGLMC. To date our reasonable requests, which follow, have been denied.

- OGLMC must allow 60 to 120 days for public comment from the time an agency or member of the oil and gas industry nominates a parcel for extraction to the time OGLMC meets to make a decision on a nomination.
- Notice for each nominated parcel must be posted on OGLMC's website 60 to 120 days in advance and remain on the website through the close of the commenting period.
- OGLMC must create an email notification list, with signup readily available on OGLMC website, that provides direct email notice of each nominated parcel 60 to 120 days in advance of a decision date.
- Each notice must specify the date on which the notice was first posted, the procedure for providing public comment, and the date and time at which public comment is due.
- Each notice must provide electronic access to the location and map of the parcel nominated for oil and gas extraction.
- Each notice must include a list of factors OGLMC will consider in making a decision about whether to allow oil and gas extraction on the parcel of public land.
- A 45-day review of the comments submitted to OGLMC on each parcel nomination before OGLMC meets to discuss the nomination.
- Notification of an interested party's intention to negotiate a surface use agreement with an agency.

These requests are within the statutory time frame in which OGLMC has authority to decide on whether state owned mineral rights should be leased. Yet they have been ignored by OGLMC.

Even while ignoring the reasonable requests of the public, OGLMC has opened the door widely to the requests of the Ohio Oil and Gas Association (OOGA). Most recently, the association demanded last minute changes to the lease, failing which oil and gas companies would refuse to sign the lease. With a gun to their heads, OGLMC commissioners quickly revised the proposed lease giving OOGA everything it had demanded. OGLMC then quickly refiled the rule package with JCARR. The public was shut out of the process and could not even suggest appropriate lease language or provide more appropriate language.

This is inherently wrong when the “*standard lease form*” that you have before you, by statutory reference in division (A)(1) of section 155.34 of the Revised Code, shall be “*consistent with the practices of the oil and natural gas industries.*” Additionally, the standard lease form must include the terms required under divisions (A)(1)(a) to (d) of section 155.34 . This statutory language does not direct OGLMC to adopt the oil and gas industry’s wish list of desired lease provisions, as OGLMC apparently has done. The words “*consistent with the practices of the oil and natural gas industries*” refer to negotiated lease provisions found in the hundreds or thousands of individual lease negotiations between lessors (landowners) and lessees (oil and gas companies). Indeed, most executed oil and gas leases were modified in some way or another as a result of negotiations before they were signed. Those executed leases provide “*the practices of the oil and natural gas industries.*”

The above language anticipates that input of lessors (landowners). Such practices cannot be determined only by OOGA, oil and gas companies or the OGLMC commissioners who experience with or close ties to the oil and gas companies. No attempt has been made by OGLMC to discern the practices of oil and gas lessors (landowners). Since the property to be affected by OGLMC’s authority consists of parks and other state lands, only members of the public have the diversity and interests to represent the lessors of oil and gas leases. After all, members of the public use the parks and other public lands and pay for the operation of most of those parks and lands through fees and taxes. Members of the public are the largest and most important group of stakeholders. By the clear, unambiguous intent of the Legislature in section 155.34, “*practices of the oil and natural gas industries*” must include representation of the interests of past and present oil and gas lessors. The public provides that representation. OGLMC has refused to include the public, and in doing so, has subverted the clear, unambiguous intent of the General Assembly. OGLMC at best has only paid lip service to that intent.

Just as OGLMC is powerless without input from those representing lessors (landowners) to dictate the terms and conditions of the standard lease, ODNR, which owns or regulates many of the parks and other state lands subject to leasing, likewise would be an inappropriate party to represent lessors (landowners) in preparation of the required lease form. ODNR by its own admission in its purpose and history on its website states: “***It is an agency comprising incredible diversity with a vast understanding of the importance of partnerships with the public. Through these partnerships, ODNR has accomplished a greater balance between environmental conservation and economic growth for the state.***” OGLMC is a part of ODNR. As such, it is subject to ODNR’s overall policies. Just as ODNR relies on partnerships with public, OGLMC must do likewise. OGLMC’s stonewalling tactics fail to provide a basis for a partnership with the public. There is no other way for OGLMC to act consistently with the legislative intent set forth in section 155.34(A)(1). In order to comply with its statutory mandate, OGLMC must discern the leasing practices of oil and gas lessors *and* lessees before attempting to prepare a standardized oil and gas lease form to be used for leasing public lands. It has failed to do so. Therefore, JCARR should exercise its authority to require OGLMC to establish a partnership with the public and properly prepare the required statutory standardized lease form.

Submitted by

Roxanne Groff
Public Lands Campaign Volunteer
Amesville Ohio 45711
740-707-3610

Honor Banvard

From: Morgan Hager <mhager@repowernetwork.com>
Sent: Monday, May 8, 2023 8:59 AM
To: JCARR1
Subject: Testimony for JCARR meeting

To the Joint Committee on Agency Rule Review:

I am writing again because you are not listening to us even though you received over one thousand written and in person testimonies. We are the public, we own these lands. We pay for their management with our taxes and we are the most impacted by these uses that we apparently have no say on.

To the public, Governor DeWine says that his administration's policy of prohibiting any new surface use access in state parks will continue. In private, the Oil and Gas Land Management Commission allows separate agreements to be made between the companies who stand to profit from these surface impacts and the agency that manages the land. These decisions regarding the most destructive part of leasing on these lands will be made with no way for public notification or comment.

This is wrong. You say you value public input but actions like these make it clear that this is not true. The information we need to be engaged citizens as part of a functioning democracy is hidden from us in these meetings behind closed doors. Our participation and feedback is ignored and instead you listen to every request from the Ohio Oil and Gas Association.

I am so discouraged by witnessing this process that directly effects us but does not include or represent us. You are listening to the gas companies, not to us when we are the largest stakeholder.

Sincerely,

Morgan Hager
Engineer & Co-owner
RePower Network

Honor Banvard

From: Carolyn Harding <cinublu@gmail.com>
Sent: Monday, May 8, 2023 12:21 PM
To: JCARR1
Subject: Testimony re: oil & gas extraction on public lands leasing law

Carolyn Harding
Bexley, Ohio 43209

When I was a kid my Grandparents bought a lake house at Lakeside, between Marblehead and Port Clinton on Lake Erie. We spent weekends up there with our families swimming at the East Harbor State Park beach. It was in the early 1960's, I was in preschool and had learned to swim. I loved swimming in the waves, my hands touching the sand, facing the shore- and this one day I kept accidentally taking in gulps of water as I floated in the surf. This was early 60's when Grandpa's boat would skiff over dead fishes in the ski bay, before water treatment and industrial release regulations were taken seriously. That week I was admitted to the Childrens Hospital with Dysentery. I was five, in a hospital crib, fed by an IV, for drinking Lake Erie water.

Ohio's been unconventionally fracking our hillsides, farm fields, villages for over a decade, and during the last lame duck session, the Oil & Gas industry, lobbyists and their well funded Ohio legislators, slipped into the 2022 Christmas Tree bill, Ohio HB507, with provisions to Frack our Public Lands, which includes our state parks, forests, wildlife areas and Lake Erie.

Fracking is an oil & gas extraction method. First the drill bore hole goes down vertically and then when the drill bit hits the hot spot in the black shale, the drill bore hole goes horizontal and continues drilling for up to a mile or more. The drill cuttings, or rocks and soil brought up from the bore hole, are radioactive, particularly in the Marcellus and Utica black shales, and due to oil & gas funded legislation, these radioactive drill cuttings no longer have to be regulated. Consequently frack drill cuttings are being dumped into municipal landfills, where Radium 226 & 228, bone seeking radionuclides linked with leukemia, bone and breast cancers, can leach into our surface and ground waters.

The industrial process of bulldozing, construction, heavy equipment use, diesel fumes destroy any property used for a Frack Well Site. And millions of gallons of fresh water (per frack) is mixed with a secret chemical brew and silica sand, then injected at high pressure to fracture the shale to extract the oil and gas. This process creates massive amounts of radioactive toxic Frack Water Waste.

This radioactive toxic Frack Water Waste, full of neurotoxins, endocrine disruptors, carcinogens, and PFAS (forever chemicals), is then transported by tanker truck and injected into old abandoned vertical oil wells on farm fields, next to school yards, next to rivers and lakes. These injection wells, which have no stainless steel holding tank, have fissures, cracks and conduits where this radioactive toxic frack water waste can contaminate our ground and surface waters.

When the Oil & Gas Industry claims that fracking and injection wells are safe, the esteemed Cornell University professor of Civil and Environmental Engineering and fracking expert, Anthony R. Ingraffea, warns, "Anything that ages starts to fail."

The claim that HB507 doesn't allow fracking to be sited on Public Land is smoke and mirrors. A Unconventional Frack Well pad sited on the outskirts of an Ohio park, forest, wildlife area, or lake can have

horizontal legs that extend miles directly under, and can impact, our public lands including our vulnerable Great Lake Erie. Indeed, “Anything that ages starts to fail.”

I was lucky back then. I got better.

Radioactive, toxic water is deadly. Our Children, Grandchildren & Great Grandchildren’s Health - their Lives - depend on Us to Do the Right Thing.

I ask you as my/our Ohio Representatives to:

1. Legislate only Renewable Energy;
2. Legislate a Ban on Fracking in Ohio - Period.
3. If you are not insightful or brave enough to do so, at the very minimum you must legislate, for any kind of oil & gas lease, the following to [Draft Rule 155-1-01](#):
 - The commission must allow 60 to 120 days for public comment from the time the oil and gas industry nominates a parcel for extraction to the time the commission meets to make a decision.
 - Notice for each nominated parcel must be posted on the commission’s website 60 to 120 days in advance and remain on the website through the close of the commenting period.
 - The commission must create an email notification list, with signup readily available on the commission website, that provides direct email notice of each nominated parcel 60 to 120 days in advance of a decision date.
 - Each notice must specify the date on which the notice was first posted, the procedure for providing public comment, and the date and time at which public comment is due.
 - Each notice must provide electronic access to the location and map of the parcel nominated for oil and gas extraction.
 - Each notice must include a list of factors the commission will consider in making a decision about whether to allow oil and gas extraction on the parcel of public land.

The Oil & Gas Land Management Commission implemented the oil & gas industry's and their political friends’ requests, and added **none** of the above People’s requests to the draft rule.

We expect you to require and legislate these minimum rules. We expect you to represent the People of Ohio, our Public Lands, Public Health and Wellbeing.

Thank You.

From: Mary Huck <theclevelandwoman@gmail.com>
Sent: Monday, May 8, 2023 11:06 AM
To: JCARR1; commissionclerk@oglmc.ohio.gov
Subject: HB507

Ohio Legislature Voted in January to Frack Our State Parks

I grew up on a mid-sized dairy farm in Northern Ohio in the 50's and early 60's with ravines, a cliff, crooked creek and woods to roam in. I witnessed order in the chaos of nature. Snakes shedding their skins, 2-inch-long grasshoppers, red fox, quail and plate sized turtles. My mother would say that we lived in a park-like setting. Thoreau said, "Wildness is the preservation of the world." Now, I want to preserve the wooded acreage as a county park, minus the wildlife.

With the passage of HB507, what is left of nature today is at risk of being lost for millennia, as fossil fuel companies stampede to frack our state parks.

"Fracking pollutes the air. The emissions from burning and extracting fossil fuels from public lands and waters account for about a quarter of U.S. CO2 emissions, per a U.S. Geological Survey, and Ohio is on course to inflate this statistic. "There are no federal regulations on flaring, i.e., burning off the methane from fracking...if fugitive emissions of methane from the equipment used to transport and store natural gas exceed more than 3 percent, natural gas use would have a greater climate change impact than coal." (1) She also said that there's evidence to suggest that the industry's methane emissions will exceed 3 percent. Methane, whether flared or leaked accidentally, pollutes the air; "methane, which is...at least several dozen times more powerful than CO2." (2) "Thirty seven percent of the chemicals used in hydraulic fracturing operations are volatile and can become airborne." (3) "One study measured various air pollutants weekly for a year surrounding the development of a newly fractured gas well and detected non methane hydrocarbons methylene chloride (a toxic solvent) and polycyclic aromatic hydrocarbons." (4)

Fracking pollutes the water. Millions of gallons of water are used for a single fracking well (up to 16 million per the Geosciences Institute.) Where does this water come from – use of water for hydraulic fracturing can divert water from stream flow, water supplies from municipalities and industries, such as power generation, as well as recreation and aquatic life. Unfortunately, our parks fall into the latter category. How bad is the pollution - "Out of 2,500 products used as hydraulic fracturing additives in the United States, 653 contained one or more of 29 chemical compounds which are known or possible human carcinogens, regulated under the Safe

Drinking Water Act for their risks to human health. Wastewater from fracking can become flow back, then be recovered as production brine. (Ohio has recently pledged to stop buying a form of this, called Aqua Salina, to melt highway ice due to its radioactive content.) Some of the wastewater remaining in the ground contains uranium, radium, radon and thorium, contaminating groundwater. In addition, produced water spills contain benzene, toluene ethylbenzene, xylene and naphthalene in harmful amounts for park drinking fountains and lavatories. In addition, groundwater methane is potentially explosive. (6) We need to consider our needs when planning a visit to state parks this June and forward, “Of all urban entitlements, the casual expectation of never-ending drinking water is perhaps the most deeply delusional” (7)

There are small earthquakes of increasing frequency caused by the increased injection of gas-well wastewater into disposal wells. The United States Geological Society says that there is no guarantee that larger quakes will not occur. There are also concerns that “quakes may damage underground gas, oil, and water lines in wells that were not designed to withstand earthquakes.” (8) (9)

Can we protect our state parks from hydraulic fracturing, an environment of well pads, rigs, pipelines, compressor stations and flares? Can we stand up to a legislature which gave us the HB6 scandal and was named most corrupt in the nation by USA Today? John Kerry has likened the threat of climate change to a “weapon of mass destruction.” (10) This is what it means to live beyond the “end of nature: - and “it is human action that will determine the climate of the future, not systems beyond our control.” (11) We’ve worked collectively before: ozone layer: WWII victory gardens & rationing & bonds. (12) If we allow fracking to go on against our collective will, we’re promoting a reverse of the “nuclear winter” ...unchecked greenhouse gas emissions could eventually produce global warming comparable in magnitude but opposite in sign to the global cooling of the last Ice Age.” (13)

We can stop fracking in our Ohio state parks

"Anyone and everyone (families, campers, hikers, etc.) that loves the local, city, state parks - stand up for them every Saturday anytime from 10:00 a.m. to 2:00. Stand at the park entrance, or just inside the park entrance with your homemade signs, "Save Our State Parks from Drilling" or "Please Don't Poison Our Parks With Fracking," etc. One can stand for 15 min., 30 min. or an hour. Stand up for your Parks before or after your hike, picnic, etc. Stand at whatever Park you happen to be visiting that day, says Jenny Morgan, founder, Save Our State Parks www.KidsandNature.org www.CitizenPollutionWatch.org and member, Ohio Brine Task Force.

Sources: [Document 3](#)

Mary Huck
retired teacher
1579 Lakeland Avenue
Lakewood Ohio 44107
216-926-5757

Honor Banvard

From: Mary Huck <theclevelandwoman@gmail.com>
Sent: Monday, May 8, 2023 11:11 AM
To: JCARR1; commissionclerk@oglmc.ohio.gov
Subject: HB507

A thief in the night comes and steals what isn't theirs, undercover and quickly, so as not to be detected. The parkland, along with its mineral rights, belongs to Us - your bosses - the people. When you voted to decimate its peacefulness you were playing hardball. You've made a new set of rules in your hurry to steal our parks. One which is based upon no accountability and no communication. We asked for the location and timing of proposed fracking to be on the OOGA commission's website plus an email notification list with sign up readily available on the same commission website, with 60 to 120 day direct email notice on that email. We asked for a 60 to 120 day advance notice between nomination and decision making. You ignored our requests. We asked for a weigh-in of factors considered in decision making for extracting. You ignored our request.

Most importantly, we asked for health professionals, environmental scientists, botanists, biologists and Park users to be on the commission. You are unqualified. You see, our spiritual, mental and physical health, along with the health of our air, soil, water, flora and fauna in our Parks is far more valuable than the pitifully small amount of taxes, if any, we'd collect from your extractivism. You see, we like to hike, jog, picnic, camp, swim and fish in our parks. In the meantime, we enjoy the scenery unspoiled by unsightly buildings and fracking surface impacts: pads, pipelines, pump stations, tank batteries, dryers, separators, compressors, access pits, timber removal, fencing, gates, water withdrawals, rigs, towers, methane flares, bulk trucks and jungles of pipelines.

You must stop because we live here and we won't go away. Oh, and - we like safely drinking the water in our Parks.

Mary Huck
retired teacher
1579 Lakeland Ave.
Lakewood, Ohio 44107
216926-5757

Honor Banvard

From: Jill Antares Hunkler <jahhunkler@gmail.com>
Sent: Monday, May 8, 2023 3:34 PM
To: JCARR1
Subject: Testimony on on Rule 155-1-01

I urge this committee to listen to the countless Ohioans who have voiced their concerns regarding the draft rules that will govern oil and gas extraction on our public lands.

For over 50 years, my extended family has gathered at state parks with great appreciation and enjoyment. The proposed draft rules do not include adequate public engagement and strips us of our power to advocate for and protect these beautiful and treasured parks and public lands. Fracking has had devastating effects on Southeastern Ohio. Our public lands must remain free from oil and gas development. There are discrepancies between Governor DeWine's order that no surface impacts will be allowed on our state parks and lease procedures regarding such impacts.

There has been no public health or environmental study on the effects of fracking in Ohio. I doubt there are any members of this committee who have investigated or have the qualifications to make determinations of the safety of fracking. How many committee members live on the frontlines of fracking or even enjoy our public lands and state parks?

Living in Belmont County, the most heavily fracked in the state, I can tell you that opening up our parks and public lands to fracking will be another blow to my community. We now must rely on the peace and natural beauty of our public lands even more, because so much of the private land has been fracked here and all enjoyment taken away.

We shall remain confident and vigilant in our stance against the fossil fuel industry as they attempt to use their influence to corrupt our state politicians into enacting unconstitutional laws that infringe upon the rights of Ohioans.

Jill Hunkler
Seventh Generation Ohio Valley Resident

Honor Banvard

From: Dave Lipstreu <dlipstreu@gmail.com>
Sent: Monday, May 8, 2023 11:49 AM
To: JCARR1
Subject: Proposed Rule O.A.C. 155-1-01
Attachments: O&G Comm 4-10-23 Testimony.odt

JCARR Members:

The statute pertaining to the state lands nomination process requires the Ohio Oil and Gas Land Management Commission to consider public comments and objections when making its nomination decisions. However, neither the statute or the proposed rule as written, provides procedures that would implement this major public process. The leasing and development of citizen-owned public lands for oil and gas is a matter of SUBSTANTIAL PUBLIC INTEREST! It impacts such considerations as public health, environmental quality and conservation, and the quality of recreational enjoyment. The proposed rule must be expanded to include procedures and sufficient public notice to enable meaningful public involvement in the Commission's nomination decision process. As a former public official for many years, I am most aware of the critical importance of the "process" involved in making policy decisions that have major consequences for citizens. The proposed rule as written, is inadequate and totally circumvents the required public process!

Attached is an expanded version of my opposition to this very bad and undemocratic rule.

Thank you,

David A. Lipstreu, AICP
40 North 40th Street
Newark, Ohio 43055

dlipstreu@gmail.com 440-897-5793

Testimony Re Proposed Rule O.A.C 155-1-01

by

David A. Lipstreu

April 10, 2023

I have previously submitted testimony unilaterally opposing the use of state-owned parks, forests and other public lands for oil and gas production, and fully support the position of the Ohio Environmental Council in the January 9, 2023 letter from its Public Lands Director Nathan Johnson. The proposed use of state lands, lands owned by the citizens of Ohio for a use inimical to the purpose of said lands, to wit, public recreation and the conservation and fostering of clean air and water, wildlife habitat and the enhancement of ecosystems and the manifold services that they provide, is beyond outrageous. It is tantamount to a crime against nature, perpetrated by arrogant publicly elected officials who are a disgrace to the office they hold, and to the constituents they took an oath of office to represent.

As a former public official and professional land planner, I know well the importance of the “process” of public notice that public officials are required to follow on all levels of government. Such process is essential to the operation of an informed electorate, and even more so for promoting and maintaining the public health, safety and welfare, the critically important function of a representative government. Unfortunately, keeping the public informed, and listening to the concerns and opinions of citizens, is no longer considered a priority in government. Private interests driving the pay to play culture of today’s style of governance has become the accepted norm. And THAT is precisely what has been shoved through the backdoor in the form of Amended House Bill 507 and its giveaway to corporate oil and gas interests, all unbeknownst to the voting public.

Members of the Oil and Gas Land Management Commission, we are in the midst of an increasingly severe climate crisis. Human induced climate change is not a myth, but a scientifically proven fact, despite what many self-serving, regressive and reactionary elected officials believe, or worse, would have their constituents believe. The environmental and health perils and damage caused by hydraulic fracking are well documented; this activity has caused severe air and water pollution, and adversely impacted precious wildlife and ecosystems. Further, it results in methane emissions which contribute to atmospheric warming. As constituted, you do not possess the expertise to thoroughly evaluate the standards and requirements of the statute you are enacting. At a time of extreme climate emergency, which the state of Ohio has refused to acknowledge, it is insanity to aggravate a worsening climate regime with its increasingly severe weather events and impacts upon human health for the benefit of not the many, but the few, the oil and gas corporations.

The majority of the citizens of Ohio, the many whose voices are seldom heard, but who nonetheless greatly cherish Ohio's lush parks and state forests, would be vehemently opposed to using these refuges and havens of recreation and relaxation for the industrial land use of oil and gas production. And they would clearly resent the scandalous profiteering by private interests from publicly owned lands. Ohio's citizens deserve and expect much more from their elected representatives!

David A. Lipstreu, AICP
40 North 40th Street
Newark, Ohio 43055

440-897-5793

dlipstreu@gmail.com

Honor Banvard

From: Loraine McCosker <loraine.mccosker@gmail.com>
Sent: Monday, May 8, 2023 1:43 PM
To: JCARR1
Subject: Rule 155-1-01
Attachments: 1 Rule 155 Loraine McCosker.pdf

Hello JCARR,

Please accept this written testimony regarding Rule 155-1-01.

Thank you,

Loraine McCosker
Athens Ohio

Rule 155-1-01 comments

Loraine McCosker

59 Elmwood Place

Athens Ohio 45701

Loraine.mccosker@gmail.com

May 7, 2023

Chair Callender and members of the Joint Committee on Agency Rule Review,

Thank you for the chance to submit testimony. My name is Loraine McCosker, and frequently visit Ohio's state parks (1-3 times weekly) and other public lands since moving to Ohio in 2003. I am also an Environmental Studies instructor at Ohio University and utilize our public lands in my classes and teaching.

I would like to provide comments regarding Draft Rule 155-1-01, which would govern oil and gas extraction on Ohio public lands. I have been involved with the Oil and Gas Land Management Commission (here referred to as OGLMC) process since the passing of HB 133 in 2011. I am deeply concerned with the rules process of the OGLMC.

When I learned that the OGLMC would be meeting creating rules and a lease I was hopeful that a thorough process with public engagement and oversight would be implemented. That was not the case.

The first meeting of the OGLMC took place on February 1. There were over 600 comments and 15 citizens in attendance. The goal of such involvement was to have a transparent process with citizen engagement highly embraced as these are the public lands of Ohio. However that has not been the reality of this process. There have been many emails with the clerk of the OGLMC as well as the chair of the OGLMC commission, Ryan Richardson.

1. Public engagement is limited and the state is not implementing our input. The following requests were made regarding public input.

- The following was asked of the commission to add the below to Draft Rule 155-1-01. The commission added none of that to the draft rule, which carries the force of law.
 - The commission must allow 60 to 120 days for public comment from the time the oil and gas industry nominates a parcel for extraction to the time the commission meets to make a decision.
 - Notice for each nominated parcel must be posted on the commission's website 60 to 120 days in advance and remain on the website through the close of the commenting period.
 - The commission must create an email notification list, with signup readily available on the commission website, that provides direct email notice of each nominated parcel 60 to 120 days in advance of a decision date.
 - Each notice must specify the date on which the notice was first posted, the procedure for providing public comment, and the date and time at which public comment is due.

- Each notice must provide electronic access to the location and map of the parcel nominated for oil and gas extraction.
- Each notice must include a list of factors the commission will consider in making a decision about whether to allow oil and gas extraction on the parcel of public land.

April 10 meeting 575 written comments with 16 people testifying in person opposing extraction on our Ohio state parks and other public lands. I had a meeting with Ryan Richardson and sent emails as I was out of state for the April 10 meeting. They did not accept virtual testimony. Citizens made the following points:

- Public engagement is limited and the OGLMC is not listening to our input
- Discrepancy between DeWine's order and lease procedures regarding surface impacts
- Impacts of fracking on health and environment
- Climate change and the IPCC report
- Oil and gas commission does not include people who study the effects of fracking on health and environment or represent people who use public lands
- Commission is not qualified to evaluate the factors that state statute requires.

'Further, despite claiming that "The Commission strongly values and will continue to prioritize public participation and input," the commission has refused to let anyone from the public speak at their business meetings, no matter how affected they are by the commission proceedings. This includes scientists and medical professionals.

The only person who testified regarding oil and gas leasing was Craig Butler, chief executive of the Muskingum Watershed Conservancy District, who promoted the safety of fracking. Yet people who live in the MWCD were not allowed to speak at the meeting about the direct effects of fracking in the Muskingum watershed district on their daily lives.

2. Surface impacts discrepancy between governor and the lease and rules. There is confusion as to the surface impacts (on public lands) of the actual fracking and the rules in place to regulate such actions.

- The OGLMC will allow oil and gas companies that want surface impacts to create a separate agreement with the agency that manages the public land. Critically, this agreement will be made behind closed doors, with no public notification or comment. Even the commission will not be informed that this is happening.
- If any surface impacts are being planned or proposed on Ohio's public land, that needs to be part of the application to the Oil and Gas Land Management Commission, so the public will be notified and given a chance to comment.
- **Citizens asked the OGLMC to require oil and gas corporations to disclose any plans for surface impacts at the time they apply to lease a parcel of public land for extraction. Instead, the OGLMC removed any reference to surface leases from the lease form entirely. This will have the effect of burying surface impacts even further outside the view of the public.**

- Oil and gas corporations know they can still go to state agencies directly to get a separate agreement for surface use impacts. Now even the commission won't know if they are planning surface use. The public will have no way of finding out until a frack rig appears in one of their beloved state parks or historical sites. By then it will be too late. Surface use should be disclosed BEFORE a lease nomination is approved, not in a backroom deal afterwards.

3. Commission is not qualified to evaluate the factors that state statute requires

- By state statute, the Oil and Gas Land Management Commission consists of five members. The director of ODNR or the director's designee, two members with knowledge or experience in the oil and gas industry, One member with expertise in finance or real estate, One member representing a statewide environmental or conservation organization. There are no scientists. There are no health care professionals. There are no botanists or wildlife specialists. There are no climate scientists. Nor is there anyone who represents everyday users of Ohio public lands for hiking, camping, boating, fishing, or hunting. The very commission is flawed and does not represent the critical voices needed in such important decision making. To my understanding the commission is not compensated for their time. How can that be a productive arrangement when we are discussing billions of dollars?
- By state statute, the Oil and Gas Land Management Commission must consider the following when deciding whether to lease a parcel of state land for fracking:
- (a) The economic benefits, including the potential income from an oil or natural gas operation, that would result if the lease of a formation that is the subject of the nomination were approved;
- There is no amount identified as the threshold for making oil and gas development worth the cost of damaging or destroying our public lands. It also doesn't specify who would be getting the potential income. We know that fracking our public lands cannot possibly result in more income than Ohioans spend visiting our public lands every year.
- (b) Whether the proposed oil or gas operation is compatible with the current uses of the parcel of land that is the subject of the nomination;
- There is no information about how the commission will judge this. Who will they ask? There is no world in which a frack rig injecting toxic chemicals into the ground and spewing methane into the air in or near a state park is compatible with hiking, camping, hunting, or fishing.
- (c) The environmental impact that would result if the lease of a formation that is the subject of the nomination were approved;
- No one on the commission is qualified and impartial enough to assess this fairly.
- (d) Any potential adverse geological impact that would result if the lease of a formation that is the subject of the nomination were approved;
- No one on the commission is qualified and impartial enough to assess this fairly.
- (e) Any potential impact to visitors or users of a parcel of land that is the subject of the nomination;

- There is no information about how the commission will judge this. Who will they ask? There is no world in which a frack rig injecting toxic chemicals into the ground and spewing methane into the air in or near a state park is compatible with hiking, camping, hunting, or fishing.
- (f) Any potential impact to the operations or equipment of a state agency that is a state university or college if the lease of a formation within a parcel of land owned or controlled by the university or college that is the subject of the nomination were executed;
- There is no information about how the commission will judge this. Who will they ask? A fracking operation injecting toxic chemicals into the ground and spewing methane into the air on or near a college campus is not compatible with students and faculty trying to teach and learn.
- (g) Any comments or objections to the nomination submitted to the commission by the state agency that owns or controls the parcel of land on which the proposed oil or natural gas operation would take place;
- ODNR does not seem likely to object to subjecting any of our state parks, forests, and wildlife areas to fracking. They literally got caught running a public relations campaign for the fracking industry – which they are supposed to be regulating.
- (h) Any comments or objections to the nomination submitted to the commission by residents of this state or other users of the parcel of land that is the subject of the nomination;
- Residents and users of the land proposed for fracking should not be relegated to a few minutes of testimony, if they are lucky enough to hear about it. They should be informed that their land is being considered for fracking through newspaper advertisements, notices at park bulletin boards, and letters to their home – and they should be at the table when the decisions are being made. Currently state officials are ignoring all of our concerns and going behind our backs to placate the oil and gas industry.
- (i) Any special terms and conditions the state agency included in its comments or objections that the state agency believes are appropriate for the lease of the parcel of land because of specific conditions related to that parcel of land.

There must be more engagement in this highly critical rule for the citizens of Ohio. The public trust is at risk. This process is significantly flawed.

Sincerely,

Loraine McCosker

Loraine McCosker

Athens Ohio

Honor Banvard

From: Valerie Moore <vam5242@gmail.com>
Sent: Sunday, May 7, 2023 6:31 PM
To: JCARR1
Subject: Leasing public lands for fracking

Oil and Gas Land Management Commission

I am still 100% against fracking on our public lands, owned by 11 million plus Ohioans, but since the General Assembly decide to illegally "give it to" the oil/gas industry, ignoring our desire to NOT open our shared lands to destructive resource extraction, it is your responsibility to make sure the statutes are followed openly and transparently, especially the "no new surface use access in our state parks", or on any public lands. (2011 process established by the General Assembly)

Our public lands were/are not preserved to be developed at a later time by a few profit driven companies. These lands are what make our state rich:

- the knowledge that we have wild, green spaces to use and decompress in a natural environment with little to no evidence of human destructive intrusions;
- the fact that our resources are being tended in a way our future generations will have them to enjoy, be proud of;
- the green public spaces are part of the solution in combating climate change, not part of the cause. (Fracking is part of the cause==fossil fuel extraction)

Your duty is to make sure ALL rules pertaining to leasing of our lands, ie. lease agreements, are:

- transparent and public;
- the public be allowed to comment on ALL potential leases, even to stop a lease deemed too destructive to allow, particularly if water resources are in danger of contamination;
- make the lease costly enough to provide monies to repair any and all destruction done to or near parks, natural areas, etc., provided by the drilling/energy with NO taxpayer money in the pot;
- there are actual experts on the commission that will understand the science behind protecting our public lands, not just those who will benefit from the lease leases;
- follow 2011 established processes that prohibited surface impacts on public lands regardless of oil/gas companies desires;
- make sure drilling companies pay market price for leases that may destroy our lands, disclosed in public hearings for each lease application.

Thank you for your attention. Please make sure NO leasing is done behind closed doors (be more ethical than the General Assembly was with the passing of this law), is as unimpactful as possible to our lands and the areas around them, with no fracking evidence on our public lands, and prohibited when risks to water and life make such a prohibition needed.

Visit any park, natural area and see why green space public lands, without destructive human intrusions (ie. fracking, mining), are so necessary.

Valerie Moore,

Centerburg, Ohio
Avid state park/natural area user, Ohio taxpayer

Honor Banvard

From: Larry Petrick Jr. <lawren1029@aol.com>
Sent: Friday, May 5, 2023 10:55 AM
To: JCARR1
Subject: Corrected Support for Rule 1501 State Land Leasing
Attachments: JCARR State Lease Adoption.pdf

JCARR,

I previously sent this morning a document with an error. I had misspelled Representative Callender's name. Attached is the corrected letter of support for the passage of rule 1501:155-1-01 regarding state land leasing. Please forward to Chair Representative Callender. Thank you.

Respectfully,
Lawrence Petrick Jr.
National Association of Royalty Owners -Ohio Chapter
Secretary
216-287-2524



NARO Ohio Chapter
P.O. Box 3
Powhatan Point, OH 43942

May 5, 2023

The Honorable Jamie Callender
Chair, Joint Committee on Agency Rule Review
77 S. High Street
Columbus, OH 43215

RE: Rule Number 1501:155-1-01 - Standard Lease Adoption for State Lands

Representative Callender:

The mission of The National Association of Royalty Owners Ohio (NARO OHIO) is to advocate for and educate landowners regarding regulatory, legislative, and judicial issues related to mineral extraction in the State of Ohio. NARO OHIO offers its support for Rule Number 1501:155-1-01 regarding standard lease adoption as put forth by the Oil and Gas Land Management Commission.

Ohio can fully maximize its potential when it comes to energy exploration. The resources beneath Appalachia and our state lands, when extracted responsibly and environmentally sound, would allow for tremendous benefit to not only the State of Ohio but to our communities, landowners, and state lands. Ohio landowners have continually fought to be able to develop their properties that sit adjacent to public lands but are landlocked due to resources beneath state lands that cannot be unitized.

NARO OHIO's members are investors in their local communities and the royalties received from landowners will cycle through their local economy raising the quality of life for Ohioans, specifically in the Appalachian region. It is clear the economic impact this industry has made to Ohio, its communities, and its landowners.

The time is now for responsible oil and gas exploration on our state lands. The adoption of rule 1501:155-1-01 is a major step in the process. We appreciate your time and consideration on this important issue.

Respectfully,

Dan Devitt
President NARO Ohio
Dan.devitt@gmail.com
330-805-0297

Lawrence Petrick Jr.
Secretary NARO Ohio
Lawren1029@aol.com
216-287-2524

Honor Banvard

From: Katie O'Neill <katiecorrinoneill@gmail.com>
Sent: Monday, May 8, 2023 12:57 PM
To: JCARR1
Subject: Leasing Agreement for Public Parks, Public Comment on Rule 155-1-01
Attachments: Lease Rule for Public Parks in Ohio.docx

Dear Joint Committee on Agency Rule Review (JCARR),

I am writing to you as a citizen of Ohio who has been born, raised and educated in Ohio. I have attached my letter of concern for your public hearing tomorrow with hope that you will read it and include it in your leasing demands.

Sincerely,

Katie O'Neill
Juris Doctorate, Vermont Law School 2019
Master of Energy Regulation and Law, Vermont Law School 2018
Bachelor of Specialized Study, Ohio University 2013
High School Graduate of Chagrin Falls 2000
Current Resident of Chagrin Falls, Ohio 44022

May 8, 2023

Dear Joint Committee on Agency Rule Review (JCARR),

I am writing with great concern as a woman that was born and raised in Ohio, where I was inspired to dedicate my life to studying, understanding, honoring and protecting our natural resources. State parks provide health to our ecosystems, diversity in our wildlife, health and wellness to the public. State parks generate revenue for the economy, they create an inspiring, motivating incentive to move to Ohio and invest in our future. It is a catastrophic mistake to lease our state parks to the gas and oil industry. The Ohio General Assembly has created Ohio House Bill 507 into law and that requires action. I am writing to you so that your actions are reasonable, protective, and humane.

1501:155-1-01 Standard lease adoption.

(A) Pursuant to section 155.34 of the Revised Code, the oil and gas land management commission hereby adopts the standard lease form adopted on April 17, 2023, attached hereto and incorporated herein, and which is available on the oil and gas land management commission's website.

(B) The oil and gas land management commission shall not adopt a new version of the standard lease form until each draft version has been posted on the website of the oil and gas land management commission for at least twenty-one (21) calendar days.

(C) Notice for a meeting of the oil and gas land management commission shall be posted on the website of the oil and gas land management commission at least seven (7) calendar days prior to the meeting

I join with many Ohioans with specific demands to this leasing rule up for adoption. Specifically, we asked the commission to add the following to [Draft Rule 155-1-01](#):

- The commission must allow 60 to 120 days for public comment from the time the oil and gas industry nominates a parcel for extraction to the time the commission meets to make a decision.
- Notice for each nominated parcel must be posted on the commission's website 60 to 120 days in advance and remain on the website through the close of the commenting period.
- The commission must create an email notification list, with signup readily available on the commission website, that provides direct email notice of each nominated parcel 60 to 120 days in advance of a decision date.
- Each notice must specify the date on which the notice was first posted, the procedure for providing public comment, and the date and time at which public comment is due.
- Each notice must provide electronic access to the location and map of the parcel nominated for oil and gas extraction.
- Each notice must include a list of factors the commission will consider in making a decision about whether to allow oil and gas extraction on the parcel of public land.

You have written the purpose of your meeting.

“The Oil and Gas Land Management Commission is filing this rule package pursuant to statutory requirements in Ohio Revised Code Section 155.34. The submitted rule establishes that the Commission has adopted a standard lease for use by state agencies when negotiating oil and gas mineral rights leasing on state lands. The rule states that any changes to the standard lease will be posted on the Oil and Gas Land Management website for at least 21 days. Finally, the rule requires that notices for Commission meetings will be posted on the Commission’s website at least 7 days prior to the meeting.

The purpose of this regulation is to implement the statutory requirement that the Commission create a standard lease agreement for state agencies to use when leasing formations below state-owned or controlled lands pursuant to the nomination process outlined in the statute. This lease approved by the Commission will be the standard lease used to enter into any and all oil and gas mineral resources leases between oil and gas producers and state agencies. Existing statute requires that any parcel of land nominated for entrance into one of these leases come before the Commission for review, and the rule will allow the Commission to keep track of oil and gas drilling on public lands and ensure the efficacy of such drilling.”

In signing HB 507 into law, [Gov. Mike DeWine stated](#) that while oil and gas companies could set up shop near a state park and conduct horizontal drilling for mineral rights *under* our public lands, his administration would not allow surface impacts *on* our public lands. "I am instructing the Director of the Department of Natural Resources to continue to follow the processes first established by the General Assembly in 2011 in this area," [DeWine wrote](#). "This includes continuing my administration’s policy of prohibiting any new surface use access in our state parks."

Surface impacts refer to things like frack well pads, pipelines, pump stations, tank batteries, dryers, separators, compressors, access roads, temporary or permanent pits, timber removal, fencing, gates, and water withdrawals -- none of which we want on our state lands. Yet the Oil and Gas Land Management Commission allows oil and gas companies that want any of these surface impacts to create a separate agreement with the agency that manages the public land. Critically, this agreement will be made behind closed doors, with no public notification or comment. This is unreasonable!

We demand, again, that the OGLMC require oil and gas corporations to disclose any plans for surface impacts at the time they apply to lease a parcel of public land for extraction. You have removed any reference to surface leases from the lease form entirely. This unacceptable! If any surface impacts are being planned or proposed on Ohio’s public land, that needs to be part of the application to the Oil and Gas Land Management Commission, so the public will be notified and given a chance to comment. Siphoning the most destructive part of leasing any parcel of public land to a private agreement accountable to no one is wrong.

You have stated that this rule impacts the oil and gas producers, but in fact it effects every living being in Ohio from this moment into the foreseeable future.

“This rule will impact entities, in particular oil and gas producers, who wish to lease oil and gas mineral rights on state land for the purpose of oil and gas production. Once the

proposed rule is promulgated, oil and gas producers who wish to nominate parcel of state land for oil and gas mineral rights leasing will be required to submit a land nomination form and a nomination fee of \$150 (per statute) to the Commission for review. An additional fee of \$25 will be required to bid on a parcel that is approved by the Commission and put out to bid, as well. Except for those prescribed fees, costs to these entities will be the time and resources they put into submitting the nomination forms and bids, and the Commission is unable to estimate this cost.”

We need an environmental impact assessment. We have endangered and threatened species, parks that honor the historical significance of people, industry, and culture. When will the public see that this commission has someone that is invested in protecting the environment. We need to know that you are assessing the compatibility with zoning and urban impact, the slope, erosion, soil suitability, hazards and nuisances including site safety, energy consumption, noise, air and water quality, environmental design, demographic and character changes, displacement and employment and income patterns, all the community facilities that will be impacts (education, commercial, health care, social services, solid waste, water waste, storm water, water supply, public safety, first responders and emergency personnel, open space and recreation, transportation, natural and unique features, agriculture, vegetation, wildlife, flood disaster protection, etc. What alternatives have been considered that would provide energy without disrupting our state parks?

By [state statute](#), the Oil and Gas Land Management Commission consists of five members:

- The director of ODNR or the director’s designee
- Two members with knowledge or experience in the oil and gas industry
- One member with expertise in finance or real estate
- One member representing a statewide environmental or conservation organization

We need more than one member protecting our environment, currently there are none. There are no scientists. There are no health care professionals. There are no botanists or wildlife specialists. There are no climate scientists. Nor is there anyone who represents everyday users of Ohio public lands for hiking, camping, boating, fishing, or hunting.

By [state statute](#), the Oil and Gas Land Management Commission must consider the following when deciding whether to lease a parcel of state land for fracking:

(a) The economic benefits, including the potential income from an oil or natural gas operation, that would result if the lease of a formation that is the subject of the nomination were approved;

→ *There is no amount identified as the threshold for making oil and gas development worth the cost of damaging or destroying our public lands. It also doesn’t specify who would be getting the potential income. We know that fracking our public lands cannot possibly result in more income than Ohioans spend visiting our public lands every year.*

(b) Whether the proposed oil or gas operation is compatible with the current uses of the parcel of land that is the subject of the nomination;

→ *There is no information about how the commission will judge this. Who will they ask? There is no world in which a frack rig injecting toxic chemicals into the ground and spewing methane into the air in or near a state park is compatible with hiking, camping, hunting, or fishing.*

(c) The environmental impact that would result if the lease of a formation that is the subject of the nomination were approved;

→ *No one on the commission is qualified and impartial enough to assess this fairly.*

(d) Any potential adverse geological impact that would result if the lease of a formation that is the subject of the nomination were approved;

→ *No one on the commission is qualified and impartial enough to assess this fairly.*

(e) Any potential impact to visitors or users of a parcel of land that is the subject of the nomination;

→ *There is no information about how the commission will judge this. Who will they ask? There is no world in which a frack rig injecting toxic chemicals into the ground and spewing methane into the air in or near a state park is compatible with hiking, camping, hunting, or fishing.*

(f) Any potential impact to the operations or equipment of a state agency that is a state university or college if the lease of a formation within a parcel of land owned or controlled by the university or college that is the subject of the nomination were executed;

→ *There is no information about how the commission will judge this. Who will they ask? A fracking operation injecting toxic chemicals into the ground and spewing methane into the air on or near a college campus is not compatible with students and faculty trying to teach and learn.*

(g) Any comments or objections to the nomination submitted to the commission by the state agency that owns or controls the parcel of land on which the proposed oil or natural gas operation would take place;

→ *ODNR does not seem likely to object to subjecting any of our state parks, forests, and wildlife areas to fracking. They [literally got caught](#) running a public relations campaign for the fracking industry – which they are supposed to be regulating.*

(h) Any comments or objections to the nomination submitted to the commission by residents of this state or other users of the parcel of land that is the subject of the nomination;

→ *Residents and users of the land proposed for fracking should not be relegated to a few minutes of testimony, if they are lucky enough to hear about it. They should be informed that their land is being considered for fracking through newspaper advertisements, notices at park bulletin boards, and letters to their home – and they should be at the table when the decisions are being made. Currently state officials are ignoring all of our concerns and going behind our backs to placate the oil and gas industry.*

- (i) Any special terms and conditions the state agency included in its comments or objections that the state agency believes are appropriate for the lease of the parcel of land because of specific conditions related to that parcel of land.

It is with great urgency that I write to you again with these public demands. Once you start fracking our state parks you will be doing great harm to everyone who lives and visits Ohio. You can stop irreparable harm within the unreasonable rules of this treacherous law. Include these public demands within the leasing agreement.

Sincerely,

Katie Corrin O'Neill

Juris Doctorate, Vermont Law School 2019
Master of Energy Regulation and Law, Vermont Law School 2018
Bachelor of Specialized Study, Ohio University 2013
High School Graduate of Chagrin Falls 2000
Current Resident of Chagrin Falls, Ohio 44022

Honor Banvard

From: Randi Pokladnik <randi.pokladnik@gmail.com>
Sent: Sunday, May 7, 2023 10:14 PM
To: JCARR1
Subject: Reasons NOT to Frack State Lands
Attachments: Lists of Reasons NOT to Frack State Lands.docx

See attached.

--

Dr. Randi Pokladnik
Tappan Lake
Uhrichsville, Ohio 44683

We forget that the water cycle and the life cycle are one.

- **Jacques Cousteau**

I understood when I was just a child that without water, everything dies.

I didn't understand until much later that no one "owns" water.

It might rise on your property, but it just passes through.

You can use it, and abuse it, but it is not yours to own.

It is part of the global commons, not "property" but part of our life support system.

- **Marq de Villiers, Water, 2000**

Reasons NOT to FRACK OHIO PARKS

During the recent “lame duck” session, Ohio’s legislature and Governor DeWine rushed to pass HB 507. The amended bill expedites land-leasing for high pressure hydraulic fracking into Ohio’s state parks, forests, and state university campuses. Since 2011, [Ohio law has said an agency “may” lease land for oil and gas drilling](#), but the new bill will “[compel state agencies to lease these lands](#)”.

Since there are **NO experts on the Oil and Gas Land Management Commission** in any areas of ecology or health issues, I have supplied a plethora of resources (see below) from peer reviewed studies as to the dangerous health effects and environmental devastation caused by fracking. I have a doctorate degree in environmental studies and LIVE IN A FRACKED REGION OF OHIO!

Fracking and all the build-out that this industry requires will dramatically damage these fragile forest ecosystems. To believe that one can conduct fracking and still sustain a vibrant, healthy forest ecosystem is ludicrous. [The Haliburton loophole](#) legislation of 2005 exempted natural gas drilling from the Safe Drinking Water Act. It exempts companies from disclosing the chemicals used during hydraulic fracturing. Essentially, the provision took the Environmental Protection Agency (EPA) off the job. Fracking is virtually unregulated. Who will guarantee that every stage of the process will be conducted in a way that will not degrade the state lands that supposedly belong to Ohio’s tax-paying citizens?

Fracking infrastructure, pipelines, well pads, and compressor stations, [would harm and even destroy the plants, trees](#) and their seed banks . A study conducted in the Fernow Experimental Forest in West Virginia showed that the forest ecosystem was affected by forest clearing, erosion, and road building. Vegetation death resulted from direct exposure to fluid spills.

Fracking wastewater known as produced water has been found to [contain water soluble radionuclides](#). [“Elevated levels of chloride and bromide, combined with strontium, radium, oxygen, and hydrogen isotopic compositions are also present in the Marcellus shale wastewaters”](#).

[Peer reviewed studies](#) show that watersheds surrounding frack well pads test positive for radioactive substances. “Drilling companies deliberately spread

wastewater on roads and fields. Pollutants from the wastewater can then contaminate local waterways. Drilling operators sometimes spray wastewater on dirt and gravel roads to control dust or on paved roads to melt ice.

[Fracking well pads and infrastructure will require clear](#) cutting trees and vegetation. The combined land needed for fracking one well can total more than [30 acres](#). This fragmentation [could affect plant reproduction](#). The amount of equipment brought onto the sites introduces and encourages the spread of [invasive species](#). These species hitch-hike on gravel delivered to build pads and roads and in mud on the tires and undercarriages of trucks traveling those roads.

Fracking requires huge quantities of concrete for well casings and gravel for well pad stabilization. This means that the traffic in the region will increase tremendously becoming a burden on roads and to local citizens living in the area. Each well requires approximately [592 one-way trips](#), with a truck that carries between 80,000-100,000 lbs when fully-loaded. Multiple wells are drilled on each pad, and each bore is fracked multiple times. The traffic from the development of one well is equivalent to 3.4 million car trips.

The process of high-pressure hydraulic fracking requires 4-6 million gallons of water per well. This surface water will no doubt be withdrawn from the local streams resulting in harm to aquatic organisms and can [affect the diversity of species](#) too.

[“Fracking fluids typically contain chemical additives](#), e.g. friction reducers, biocides and surfactants. There are over 400 chemicals that can be used, many of which are known [carcinogens and endocrine](#) disruptors. This includes the [“forever chemicals”](#) known as PFAS. Very little is known about the potential effects of the chemicals, metals, organics and other contaminants once they enter terrestrial or aquatic food webs. There are numerous cases of fracking fluid spills [killing fish](#).

Land clearing and construction of wells, pipelines and roads can result in excessive sediment in surface water. The researchers found that the amount of sediment in seven major streams in the [Fayetteville Shale](#) strongly corresponded with the density of gas wells in their drainage area.

Fracking operations have been known to allow flaring of natural gas. This results in flames being visible in the night sky. Studies show this process [affects plant diversity](#). Fracking operations are very noisy. “Noise pollution generated by natural gas extraction causes some avian species to avoid breeding sites resulting in reduced bird abundance. The data of [impacts of chronic anthropogenic](#) noise from energy-sector activity on abundance of songbirds shows a marked decline in the bird populations.

Climate change, the elephant in the room, is being exacerbated by our reliance on fossil fuels. Fracking operations release [fugitive methane emissions](#) that are much higher in quantity than the industry reports. Methane gas is about 86 times as potent as carbon dioxide in trapping infrared light, which contributes to climate change.

The aesthetic beauty of the forest will be forever damaged with the visible scars of fracking operations left behind. Who wants to hike through a park surrounded by frack pads, pipelines, access roads, and other appurtenant structures? Who wants to ingest wild game and fish taken from areas where they could be contaminated with carcinogens and endocrine disrupting chemicals? Allowing fracking in our outdoor recreation areas, state parks and forests is a big mistake.

Randi Pokladnik
AAS Environmental Engineering
BA Chemistry
MA and PhD Environmental Studies
Certificate in Haz Mat Regulations
ISO 14000 Certified Environmental Auditor

86200 Tappan Highland Road
Uhrichsville, Ohio 44683

Ohio's Economic Benefit from our state parks

Outdoor Recreation Satellite Account, U.S. and States, 2021 | U.S. Bureau of Economic Analysis (BEA)

Economic Valuation of Natural Areas in Ohio November 5 2019.pdf (osu.edu)

“The U.S. Department of Commerce's Bureau of Economic Analysis 2021 data showed outdoor recreation generates \$862 billion in economic output and 4.5 million jobs.”

According to a report from The Ohio State University, “the contribution of outdoor recreational trips in Ohio to Ohio's overall economic activity is estimated to be \$8.1 billion per year, which amounts to 1.3% of Ohio's economy. The outdoor recreational sector is estimated to employ 132,790 workers in Ohio, or 1.9% of Ohio's workforce.”

Ohio has 75 state parks, 20 state memorials, 25 state forests and 12 state wildlife areas. The Ohio State Park system encompasses over 170,000 acres of land, and over 31 million visitors come to an Ohio park each year. Ohio's State Forests cover about 200,000 acres and are located in 21 counties.

For many people, both in and out of state, Ohio state parks and forests remain a sanctuary for them to escape their hectic lives and find the peace that nature offers. It also provides a space for recreating, bird watching, fishing, hiking, canoeing, boating, hunting, and biking. These state areas may soon fall prey to oil and gas development.

Effects on Recreation and Parks and Fracking

- Talking points of how fracking affects other state parks and outdoor experiences
- 1. <https://www.sciencedirect.com/science/article/abs/pii/S2213078019300416>
The impacts of shale natural gas energy development on outdoor recreation: A statewide assessment of pennsylvanians

Author links open overlay panelMichael D. Ferguson ^a, Myles L. Lynch ^b, Samantha L. Powers ^c, Austin G. Barrett ^d, Darrick Evensen ^e, Alan R. Graefe ^f, Andrew J. Mowen

Conclusion

The results of this study found that only a sub-sample of Pennsylvania outdoor recreationists encountered and were indeed impacted by SGD; particularly in the regions where SGD was more widespread. Certain recreationists within this impacted sub-sample were able to identify not only the behavioral impacts of SGD upon their recreation experiences and activities, but also the landscape environmental quality or 'fit' impacts of SGD upon their communities and regions.

-
2. <https://www.sciencedirect.com/science/article/abs/pii/S2213078018300586>

Does oil and gas development impact recreation visits to public lands? A cross-sectional analysis of overnight recreation site use at 27 national forests with oil and gas development

(27 national forests study)

While this work does not attempt to speculate on the overall user experience, it does suggest that the presence of oil and gas development may have a significant enough effect on the user experience to motivate some users to recreate elsewhere. On average, each additional oil or gas well within a five-kilometer radius is related to a decline in six visits to the site, on an annual basis. Geographically Weighted Regression (GWR) model results suggest that the effect of oil and gas wells on overnight site visitation varies across the nation and is statistically significant in western states but not significant in eastern states, possibly due to differing expectations for pristine recreation settings.

-
3. <https://www.sciencedirect.com/science/article/abs/pii/S2213078017300129>

Survey of Park users

Public parks usage near hydraulic fracturing operations

Author links open overlay panel Timothy B. Kellison ^a, Kyle

S. Bunds ^b, Jonathan M. Casper ^b, Joshua I. Newman ^c

Discussion and conclusion

The results of this study provide some perspective on how the introduction of hydraulic fracturing operations into or near public spaces of play may impact park usage. Park users who participated in this survey expressed concern that their ability to access and enjoy their favorite local, state or provincial, or federal parks systems could become hindered if nearby land was to be leased for natural gas exploration and extraction.

A survey of 255 park users in the Appalachian Basin of the United States indicated that individuals holding strong pro-environmental attitudes in general would likely avoid parklands that are affected by fracking operations. Additionally, a majority of respondents reported concern that fracking would disrupt park access and thusly supported legislative bans of fracking in public parklands.

4.

[What do outdoor recreationists think of fracking? Politics, ideology, and perceptions of shale gas energy development in Pennsylvania State Forests - ScienceDirect](#)

Conclusion

The results of this study suggested relatively low support for SGD on Pennsylvania public lands among State Forest recreationists. However, when integrating political ideology, study results found that State Forest recreationists identifying themselves as conservative were significantly more likely than their moderate and liberal counterparts to support SGD on Pennsylvania public lands. Political ideology proved to be a robust variable in the study and surpassed perceived risk when predicting

5. [Missing the forest for the fracking: Wilderness as ideology and simulacrum in Pennsylvania parks - ScienceDirect](#)

Missing the forest for the fracking: Wilderness as ideology and simulacrum in Pennsylvania parks

Abstract

Wilderness has been conceptualized as an ideology and simulacrum, and wilderness refers to specific expectations of the landscape it is attributed to including ideas of land untouched by humans. In the USA and other countries, parks are often synonymous with wild lands and wilderness. The perception of parks as wilderness increasingly comes into conflict with efforts to perform extractive industry on these lands such as hydraulic fracturing or fracking. Using a case study of fracking in Pennsylvania and how the industry was banned from expansion within State Parks and State Forests, we argue that parks are symbols of wilderness and that industrial activity within parks damages the perception of these spaces as protected land. Wilderness as an ideology and simulacrum can be a powerful tool for aiding in protection of wild spaces such as those within park boundaries and bolsters support for moving these lands primarily to being for tourism and recreation.

6.

[Understanding and mitigating impacts of unconventional oil and gas development on land-use and ecosystem services in the U.S. - ScienceDirect](#)

Abstract

Unconventional oil and gas development has expanded dramatically in the United States during the last 15 years. This change in the energy industry has developed, modified, and fragmented large areas of the terrestrial landscape, resulting in hundreds of millions of dollars of annual ecosystem services costs, including negative effects on agricultural production, plant and wildlife populations, animal migrations, and human well-being. The locations of the most active unconventional oil and gas regions overlap ecologically valuable and, in some cases, relatively intact natural habitats, but there are few detailed studies that comprehensively investigate local ecosystem services impacts of this recent activity. We highlight impacts on the terrestrial landscape in three areas of the U.S. that deserve particular attention: the eastern temperate deciduous forest of the mid-Appalachian region, the prairies of the Great Plains, and the Chihuahuan Desert of west Texas and southern New Mexico. These regions cover large geographic areas that are rich in ecosystem services, and recently they have experienced some of the highest levels of unconventional oil and gas activity. We make a call for targeted studies to improve our understanding of how this development will impact these ecosystem services and which strategies can mitigate the negative impacts. The lessons learned from these analyses could be applied to new energy development abroad, which is currently under consideration by many nations with probable unconventional oil and gas resources.

-
7. <https://www.sciencedirect.com/science/article/abs/pii/S2213078015000535>

From the inside out to the outside in: Exploring the role of parks and protected areas as providers of human health and well-being

Conclusions and policy recommendations

This paper shows increasing understanding of the positive relationships between park and protected area visitation and the associated health and

well-being benefits to the visitors. It is becoming increasingly clear that better connections between parks and protected areas and health institutions are required to support public health promotion initiatives that are of mutual interest. Indeed, a consensus has emerged about the importance of parks and protected areas in providing space....

HEALTH RISKS and Environmental pollution

Talking points : all the risks involved in fracking including air and water pollution, depression, leaking wells and orphan wells, a price tag on the negative impacts of fracking, PFAS, high water demands

1. [Beyond opposition and acceptance: Examining public perceptions of the environmental and health impacts of unconventional oil and gas extraction - ScienceDirect](#)

The public perceptions literature is analyzed in the context of primary health impacts (from environmental harm) and secondary impacts from boomtown development.

2. [Respiratory health, pulmonary function and local engagement in urban communities near oil development - ScienceDirect](#)

Conclusions

Living nearby and downwind of urban oil and gas development sites is associated with lower lung function among residents, which may contribute to environmental health disparities.

3. [https://www.biologicaldiversity.org/campaigns/fracking/pdfs/Colborn_2011 Natural Gas from a public health perspective.pdf](https://www.biologicaldiversity.org/campaigns/fracking/pdfs/Colborn_2011_Natural_Gas_from_a_public_health_perspective.pdf)

This is a very long study but full of good facts about the chemicals and health effects (Dr. Theo Colborn is the lead author)

4.

<https://www.sciencedirect.com/science/article/pii/S2214629622003462>

***** GREAT FACTS!!!!

A review of community impacts of boom-bust cycles in unconventional oil and gas development

2.1. Environmental impacts

The total environmental impacts of unconventional oil and gas development are estimated at \$162,000 to \$755,000 per well, owing predominantly to methane leakages, habitat fragmentation, and diesel use by trucks and pumps [22]. UOGD releases air pollution from machinery involved in extraction as well as from transportation, distribution, and use of hydrocarbons. The heavy truck traffic needed to equip a well site releases particulate matter, nitrous oxide, dust, and other compounds [23]. UOGD processes emit particulate matter [24], radioactive particles [25], volatile organic compounds, and BTEX chemicals [26], and increase the production of ground-level ozone [27]. Relative to conventional wells, unconventional wells have more embodied carbon - they consume 90 % more energy throughout the supply chain, though this is offset by increased productivity of unconventional wells [28].

UOGD releases two major greenhouse gases, carbon dioxide and methane [23], [29]. In Colorado, for example, roughly 4 % of extracted gas is lost to the atmosphere during drilling, transmission, and distribution [30]. UOGD's methane emissions are particularly concerning given methane's high global warming potential, though the actual amount of methane emitted is subject to debate [31], [32], [33], [34], [35]. Early research showed that between 0.05 % [36] and 8 % [31] of methane from UOGD escapes over a well's lifetime. More recent work found that fugitive methane emissions range from 2.8 % to 17.3 % [35]. Seven well pads in this region averaged 34 g of methane emissions per well, almost three times the emissions expected by initial estimates [35].

5. <https://www.sciencedirect.com/science/article/abs/pii/S2214629620302954>

Depressed democracy, environmental injustice: Exploring the negative mental health implications of unconventional oil and gas production in the United States

Author Stephanie A. Malin

A study of Pennsylvania residents found greater incidence of depression among those living near UOGD relative to similar populations living elsewhere [160]. Activities which could normally help ease depression can be hindered by UOGD: noise, light, and vibrations from active operations can disrupt sleep [117,118,161,162], and increased traffic can discourage residents from walking, hiking, or engaging in other outdoor physical activity [23,163]. Public service impacts during a boom are direct, such as increased need for emergency response to well blowouts and spills, environmental monitoring, and leasing-related public records requests; and indirect, such as increased need for health services, schooling, and policing due to the influx of people and traffic [5,10].

6. [Unconventional oil and gas development and ambient particle radioactivity \(nature.com\)](#)

Our statistical analysis found that an additional 100 upwind UOGD wells within 20 km is associated with an increase of 0.024 mBq/m³ (95% confidence interval [CI], 0.020, 0.028 mBq/m³) in the gross-beta particle radiation downwind. Based on the published health analysis of PR, the widespread UOGD could induce adverse health effects to residents living close to UOGD by elevating PR

Radioactive particles.... SEE CHART in this article #2

7. [Point source attribution of ambient contamination events near unconventional oil and gas development - ScienceDirect](#)

We present an analysis of ambient benzene, toluene, and xylene isomers in the Eagle Ford shale region of southern Texas. *In situ* air quality measurements using membrane inlet mobile mass spectrometry revealed ambient benzene and toluene concentrations as high as 1000 and 5000 parts-per-billion, respectively, originating from specific sub-processes on unconventional oil and gas well pad sites. The detection of highly variant contamination events attributable to natural gas flaring units, condensate tanks, compressor units, and hydrogen sulfide scavengers indicates that mechanical inefficiencies, and not necessarily the inherent nature of the extraction process as a whole, result in the release of these compounds into the environment. This awareness of ongoing contamination events contributes to an enhanced knowledge of ambient volatile organic compounds on a regional scale. While these reconnaissance measurements on their own do not fully characterize the fluctuations of ambient BTEX concentrations that likely exist in the atmosphere of the Eagle Ford Shale region, they do suggest that contamination events from unconventional oil and gas development can be monitored, controlled, and reduced.

8. [now publishers - Economic and Environmental Impacts of Fracking: A Case Study of the Marcellus Shale](#)

Economic and Environmental Impacts of Fracking: A Case Study of the Marcellus Shale

Timothy J. Considine, University of Wyoming, USA,
considine.timothy@gmail.com , Nicholas B. Considine, Advanced
Solutions International, Robert Watson, The Pennsylvania State
University

The economic benefits, including the environmental benefits from displacing coal, range from \$14 to over \$30 million with an expected value of \$23 million per well. These estimates are likely a lower bound because they do not include the benefits that arise from lower natural gas due to shale energy development. Environmental impact costs range from \$162 to \$755 thousand per well with the largest impacts arising from diesel use by water pumps and trucks, forest disruption from

pipeline construction, and methane lost during flow back and downstream methane leakage.

9. [Oil and gas wells and their integrity: Implications for shale and unconventional resource exploitation | Elsevier Enhanced Reader](#)

LISTS of violations see pie chart in text (pipe failures at well sites)

THIS ALSO HAS A LIST OF ORPHAN WELLS OHIO HAS 9500 and has plugged 524

Here we assess all the reliable datasets (25) on well barrier and integrity failure in the published literature and online. These datasets include production, injection, idle and abandoned wells, both onshore and offshore, exploiting both conventional and unconventional reservoirs. The datasets vary considerably in terms of the number of wells examined, their age and their designs. Therefore the percentage of wells that have had some form of well barrier or integrity failure is highly variable (1.9%–75%). Of the 8030 wells targeting the Marcellus shale inspected in Pennsylvania between 2005 and 2013, 6.3% of these have been reported to the authorities for infringements related to well barrier or integrity failure. In a separate study of 3533 Pennsylvanian wells monitored between 2008 and 2011, there were 85 examples of cement or casing failures, 4 blowouts and 2 examples of gas venting.

10. The use of PFAS and/or PFAS precursor substances in oil and gas operations adds a highly potent substance to an already long list of toxic chemicals used in drilling and fracking.

[New Report: Fracking with “Forever Chemicals” | Physicians for Social Responsibility \(psr.org\)](#)

11. The report highlights a range of impacts that extend well beyond the fracking process itself. It notes “[a]ir impacts that could affect respiratory health,” for example, and “[c]limate change impacts due to

methane and other volatile organic chemical releases." Drinking water could be contaminated by "underground migration of methane and/or fracking chemicals associated with faulty well construction." Surface spills could taint soil and water, and "inadequate wastewater treatment" could leave water supplies polluted. The report also mentions "[e]arthquakes induced during fracturing" and "[c]ommunity impacts" such as increased trucking traffic, more accidents, and noise.

<https://www.science.org/content/article/science-spotlight-new-york-state-bans-fracking>

12. Earthquakes linked to fracking in Uhrichsville

<https://www.sciencedaily.com/releases/2014/10/141014211753.htm>

13. Moreover, other issues have been raised, such as the high demand for water and land, the impact on biodiversity and landscape, contamination of air by emissions, induced seismic activity, and the greenhouse-gas balance.

Substantial constituents in produced water are the following chemical groups:

- inorganic salts including those from chloride, bromide, sulfate, sodium, magnesium and calcium;
- metals including barium, manganese, iron, and strontium;
- radioactive materials including radium-226 and radium-228;
- oil, grease and dissolved organics, including BTEX;
- hydraulic fracturing chemicals, including tracers and their transformation products;
- produced water treatment chemicals.

Incidents in the surface installations of HF plants may lead to contamination of near-surface groundwater and of surface waters with frac chemicals and

production water. Leaks of the drilling holes will cause contamination of the surrounding rock and groundwater. Surface waters can be contaminated by the release of insufficiently treated production water and by leakage from aboveground reservoirs for storage of production water.

Local contamination of soil at production sites

Local contamination can result from the disposal of excavated material from drilling of the natural gas borehole close to the gas well site in oil sludge pits and from improperly performed maintenance and cleaning works on the site. Possible consequences are contaminations of groundwater, point pollution of soil and toxic air emissions. Another pathway of point pollution is the accidental HF wastewater surface spill on soil.

A critical aspect concerning emissions of HF processes is that most emitted organic toxic compounds are not regulated. This is the case for the National Ambient Air Quality Standards (NAAQS) of the U.S. EPA

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7225182/>

14. (Fracking poisons a national forest)

More than 75,000 gallons of fracking fluids, which are injected deep underground to free shale gas and then return to the surface, were applied to the assigned plot over a two day period during June 2008. The following effects were reported in the study:

- Within two days all ground plants were dead;
- Within 10 days, leaves of trees began to turn brown. Within two years more than half of the approximately 150 trees were dead; and
- “Surface soil concentrations of sodium and chloride increased 50-fold as a result of the land application of hydrofracturing

fluids..." These elevated levels eventually declined as chemical leached off-site. The exact chemical composition of these fluids is not known because the chemical formula is classified as confidential proprietary information.

"The explosion of shale gas drilling in the East has the potential to turn large stretches of public lands into lifeless moonscapes," stated PEER Executive Director Jeff Ruch, noting that land disposal of fracking fluids is common and in the case of the Fernow was done pursuant to a state permit. "This study suggests that these fluids should be treated as toxic waste."

<https://peer.org/fracking-fluids-poison-a-national-forest/>

RADON GAS INCREASES

Talking points: Fracking causes an increase in radon gases

<https://www.sciencedaily.com/releases/2019/06/190618083347.htm#:~:text=Measuring%20and%20geocoding%20data%20from,the%20higher%20the%20radon%20concentration.>

Measuring and geocoding data from 118,421 homes across all 88 counties in Ohio between 2007 and 2014, scientists found that closer distance to the 1,162 fracking wells is linked to higher indoor radon concentrations.

"The shorter the distance a home is from a fracking well, the higher the radon concentration. The larger the distance, the lower the radon concentration," Dr. Ashok Kumar, Distinguished University Professor and chair of the UToledo Department of Civil and Environmental Engineering, said.

The study also found the average radon concentrations among all tested homes across the state are higher than safe levels outlined by U.S. Environmental Protection Agency and World Health Organization standards. The average is 5.76 pCi/l, while the EPA threshold is 4.0 pCi/l. The postal code 43557 in the city of Stryker has the highest radon concentration at 141.85 pCi/l for this data set.

EXPLOSIONS:

<https://www.youtube.com/watch?v=D0F450ESHP8>

PFAS in FRACKING FLUID

Talking points: There is PFAS in frack fluids

<https://www.ehn.org/pfas-fracking-in-drinking-water-2657776204.html>

The chemicals, which are extremely water-repellent, are sometimes used in fracking fluid to make the chemical mixture more stable and to more efficiently flush oil and gas out of the ground at high pressure. There's also evidence that the chemicals are used during initial drilling and other phases of oil and gas extraction, but companies aren't required to disclose those chemicals, so there's no way of knowing how widespread the practice is.

The new findings suggest PFAS contamination may represent yet another problem left in the wake of fracking. But a lack of transparency in the industry makes it impossible to track where the chemicals have been used. And secrecy about ingredients throughout the supply chain for drilling and fracking chemicals make it difficult to hold any one company accountable for PFAS contamination in drinking water, leaving people like Latkanich — and regulators and scientists — in the dark.

"It's very difficult to conduct scientifically rigorous tests on an industry that operates with so much secrecy," Dusty Horwitt, a consultant with the environmental health advocacy group Physicians for Social Responsibility, told EHN. Horwitt was a co-author of [the report](#) that initially uncovered the use of PFAS in fracking wells.

<https://psr.org/wp-content/uploads/2021/07/fracking-with-forever-chemicals.pdf>

PSR has unearthed evidence suggesting that per- and polyfluoroalkyl substances (PFAS) and/or PFAS precursors (substances that could degrade into PFAS) have been used for hydraulic fracturing (“fracking”) in more than 1,200 oil and gas* wells in six U.S. states, creating risks for oil and gas workers and the public through multiple potential pathways of exposure. The lack of full disclosure of chemicals used in oil and gas operations raises the potential that PFAS could have been used even more extensively than records indicate, both geographically and in other stages of the oil and gas extraction process, such as drilling, that precede the underground injections known as fracking. The apparent use of PFAS in oil and gas production has not been previously publicized and raises concerns about toxic exposures. PFAS are a class of chemicals known for having several

CLIMATE CHANGE

Fracking is directly related to climate change (methane emissions)

<https://www.nationalgeographic.com/environment/article/fracking-boom-tied-to-methane-spike-in-earths-atmosphere>

<https://bg.copernicus.org/articles/16/3033/2019/>

Correcting earlier analyses for this difference, we conclude that shale-gas production in North America over the past decade may have contributed more than half of all of the increased emissions from fossil fuels globally and approximately one-third of the total increased emissions from all sources globally over the past decade.

ENVIRONMENTAL JUSTICE

Talking point: The fact that Appalachian counties that have already paid the price for coal extraction are going to bear this costs as well with health impacts.

1. [Environmental justice and fracking: A review - ScienceDirect](#)

Extensive research over the last five years has demonstrated that those who live near hydraulic fracturing wells and their associated infrastructure are at risk of a variety of health problems. Along with knowledge of these risks comes the ethical question of who is bearing these risks and how decisions are made about who bears the risks. This article reviews how environmental justice scholars have addressed the ethical concerns raised by the fracking boom. It draws out how this work relates to the three main types of environmental justice: distributive, procedural and recognition-based environmental justice.

2. <https://agupubs.onlinelibrary.wiley.com/doi/full/10.1029/2021GH000442>

Midstream oil and gas infrastructure comprises vast networks of gathering and transmission pipelines that connect upstream extraction to downstream consumption. In the United States (US), public policies and corporate decisions have prompted a wave of proposals for new gathering and transmission pipelines in recent years, raising the question: Who bears the burdens associated with the existing pipeline infrastructure in the US? With this in mind, we examined the density of natural gas gathering and transmission pipelines in the US, together with county-level data on social vulnerability. For the 2,261 US counties containing natural gas pipelines, we found a positive correlation between county-level pipeline density and an index of social vulnerability. In general, counties with more socially vulnerable populations have significantly higher pipeline densities than counties with less socially vulnerable populations. In particular, counties in the top quartile of social vulnerability tend to have pipeline densities that are much higher than pipeline densities for counties in the bottom quartile of social vulnerability. The difference grows larger for counties at the upper extremes

of pipeline density within each group. We discuss some of the implications for the indigenous communities and others affected by recent expansions of oil and gas infrastructure. We offer recommendations aimed at improving ways in which decision-makers identify and address the societal impacts and environmental justice implications of midstream pipeline infrastructure.

3. <https://doi.org/10.1016/j.erss.2019.101403>

Abstract

The transport of natural gas through transmission and distribution networks spans 2.4 million miles of underground and above ground pipelines in the USA. This Perspective uses a critical energy justice framework to analyze Appalachian's everyday lived experiences at the frontline of energy distribution network development. The practice of installing pipelines, as well as the sheer magnitude of the pipeline system, has transformed small rural communities into industrial sites. This Perspective also adds to the emerging concept of energy justice by bringing to the forefront Appalachian residents' voices in relation to burgeoning pipeline constructions, which are often missing from the debate on energy independence. Energy justice is based on the principle that people should not only have safe and affordable energy, but they should be protected from disproportionate negative impacts associated with generating and transmitting energy as well. Our findings are that those who reside near pipelines express fear of explosions, leaks, and negative health outcomes and are disproportionately impacted. In addition, they are concerned about regulation, state responsibility, and threats of eminent domain. We highlight how these communities are socially affected, and how residents' daily lives are altered in inequitable ways by the construction of energy distribution networks.

LACK OF REGULATIONS

Talking point: This is just one great piece of evidence as to how little this industry is held to any standards

1. [http://earthworks.org/files/publications/PetroleumExemption s1c.pdf](http://earthworks.org/files/publications/PetroleumExemption%20s1c.pdf)

21 page report that details these laws and the exemptions for oil and gas

Executive Summary The oil and gas industry enjoys sweeping exemptions from provisions in the major federal environmental statutes intended to protect human health and the environment. These statutes include the: • Comprehensive Environmental Response, Compensation, and Liability Act • Resource Conservation and Recovery Act • Safe Drinking Water Act • Clean Water Act • Clean Air Act • National Environmental Policy Act • Toxic Release Inventory under the Emergency Planning and Community Right-to-Know Act This lack of regulatory oversight can be traced to many illnesses and even deaths for people and wildlife across the country. There are a variety of chemicals used during the many phases of oil and gas development. These chemicals also produce varying types of waste throughout these processes. Because of the exemptions and exclusions, toxic chemicals and hazardous wastes are permeating the soil, water sources and the air threatening human health to an alarming extent.

LACK OF EXPERTISE ON OIL AND GAS COMMISSION

Talking Points: These folks are NOT qualified to decide which parcels to frack

Who is on oil and gas committee

<https://lsc.ohio.gov/publications/boards-and-commissions/oil-and-gas-land-management-commission/print>

The Director of Natural Resources or the Director's designee and the following four members appointed by the Governor: **two members with**

knowledge or experience in the oil and gas industry recommended by a statewide organization representing the oil and gas industry; one member of the public with expertise in finance or real estate; and one member representing a statewide environmental or conservation organization.

PROPERTY VALUES DROP

1. <https://www.sciencedirect.com/science/article/pii/S2214790X23000424>

Does shale gas development impact property values in Central Appalachia? A mixed methods critical exploration

Author links open overlay panelMartina Angela Caretta ^a, Ryan E. Emanuel ^b

Increased shale gas extraction through hydraulic fracturing and its distribution through shale gas pipelines have brought about innumerable socioeconomic consequences, both tangibly and intangibly. Evidence remains unclear on what are the impacts of shale gas developments on property values. By employing a mixed method approach, combining original data collected in the Marcellus Shale through interviews and a survey, and an analysis of the Atlantic Coast Pipeline, Rover Pipeline and the Mountain Valley Pipeline environmental impact statements, our data shows both an increase and decrease in property value in Central Appalachia. We demonstrate that shale gas pipelines buildout is made possible by skewed environmental impact statements that disregard peer-reviewed science and the experience of those living at the energy frontier. We contend that the inclusion of residents' lived experience will help to effectively evaluate the social and environmental sustainability of shale gas development. Finally, we argue that additional interdisciplinary original evidence is needed in order to improve environmental impact statements that effectively evaluate the viability and sustainability of energy distribution networks.

While the development of this technology took place with the apparent goal of reaching energy independence for the US to limit the geopolitical ramifications of relying on oil and shale gas imports (Sica and

Huber, 2017), the US is now the world's leader in shale gas exports (Zaretskaya, 2020). Thus, the centrality of pipelines distributing shale gas across the nation but also, most importantly, towards Canada, Mexico and ports for exports by ship.

Since the 2000s the advent and establishment of this new energy extraction technology and the consequential pipelines construction have brought about innumerable socioeconomic consequences for residents of those areas where this technology has been applied (Jacquet et al., 2018; Sangaramoorthy, 2019). Studies have shown negative outcomes in relation to health, environmental impacts, and quality of life. Hydraulic fracturing has been singled out to be responsible for the worsening of water quality, both groundwater (Harkness et al., 2017) and surface (Pearson, 2017) through hazardous liquids and flow back water spills. Additionally, deteriorating air quality has been reported due to methane leaks and explosions (Blinn et al., 2020). Notably, increased exposure to chemicals in the air and water has been shown to lead to an increase in hospitalizations (Jemielita et al., 2015). Other environmental impacts due to shale gas extraction sprawl are land disturbances and forest fragmentation threatening biodiversity and animals' movement (Bohannon and Blinnikov, 2019; Buchanan et al., 2017).

The environmental and health outcomes of shale gas extraction and transport have direct effects on residents' quality of life, both tangibly and intangibly. Energy sprawl frontline communities, often socially and racially marginalized (Emanuel et al., 2021), are the ones directly paying for the socioeconomic and environmental externalities of boom-and-bust energy extraction cycles. Short term economic growth, often benefitting shareholders, is prioritized over long-term health and collective consequences of natural resource extraction (Chalfant and Corrigan, 2019). In fact, social tensions, sexual exploitation, and alienation have all been reported as fallouts from this development (Komarek and Cseh, 2017; Abatsis McHenry, 2017; Willow, 2016). Residents share feelings of powerless in front of the massive economic forces steering shale gas infrastructural development as they are financially incapable of "lawyering up" to require water-polluting and property-trespassing companies to compensate for the damage they experience (Turley and Caretta, 2020; Carlson and Caretta, 2021). As encompassing as the health and tangible outcomes of extraction (Jacquet et al., 2018; Thomas et al., 2018; Sangaramoorthy, 2019), so are the emotional ones. Experiencing infrastructural development first-hand and seeing the daily changes in their surrounding landscapes have profound emotive effects on locals, who wish

they could live their once-idyllic now unrecognizable communities (Caretta et al., 2021; Willow et al., 2014). However, while some say they would not be able to sell their properties in such a polluted and dangerous area, evidence remains unclear on what are the impacts of shale gas infrastructural developments on property values.

2.

<https://www.tandfonline.com/doi/epdf/10.1080/1747423X.2021.1968973?src=getfr>

Multiple studies have shown that shale gas development is a significant driver of landscape change and has the potential to substantially alter landscapes into so- called fracked landscapes (see for e.g. Meng, 2014; Moran et al., 2015). Environmental impacts associated with fracking include but are not limited to land disturbances, forest fragmentation, groundwater contamination, water withdrawal, and air pollution (see for e.g. Buchanan et al., 2017). What remains under-explored, however, is how these changes have been experienced by local residents and how they have affected people's emotional attachment to their surroundings. Additionally, much of the landscape change research done around hydraulic fracturing and pipeline development has relied on quantitative methods, including aerial photography, remote sensing, and GIS (e.g. Donnelly et al., 2017). Many of these studies look specifically at forest loss and fragmentation (e.g. Jantz et al., 2014; Oduro Appiah, Opio, & Donnelly, 2020). This fragmentation threatens biodiversity and results from a variety of infrastructures, including well pads, roads, pipelines, compressor stations, staging areas, storage ponds, and rail lines (Bohannon & Blinnikov, 2019). However, these quantitative studies assert that unconventional oil and gas extraction can be carried out in a way that does not severely impact land, particularly if effective management and public policy decisions are put into place, for instance, by reducing forest fragmentation through the placement of new well pads near existing pipelines and pads to consolidate infrastructure (Langlois et al., 2017). There is significant hydraulic fracturing activity across the Appalachian region, contributing to ongoing landscape

change initiated by other industries. While the landscape of southern Appalachia has become increasingly agrarian in the 18th, 19th, and 20th centuries (Gragson et al., 2008), much of Central Appalachia has shifted in other ways: from rural woodland and pastures to barren industrial sites. This change is usually attributed to coal mining; thus, significant research has been done on landscape changes due to surface mining including shifts in water quality (Vengosh et al., 2013), soil composition (Miller et al., 2012), and biodiversity (Maigret et al., 2019). Environmental changes have occurred in conjunction with economic and social changes, as evidenced by proximity between coal impoundments and socioeconomically disadvantaged neighborhoods (Greenberg, 2017); increased levels of risk for some landowners who allow fracking on their land (Bugden & Stedman, 2019); and in regard to Pennsylvania's unconventional oil and gas extraction, the 'externalization of costs to the environment, public health, and community integrity' (Chalfant & Corrigan, 2019, p. 92). That is, economic growth in the short term has been prioritized over concerns about the long-term environmental, health, social, and financial effects of natural resource extraction that shape the lives of community members living in proximity to industrial buildout. This paper aims to add to the body of work around energy geography and land use change by showing that energy questions are not only technical in nature but also social and political, using a case study of a rural town in North-Central Appalachia. Historically, the presence of extractive industries in the region has led to other landscape changes, such as an increase in land usage for county, state, and interstate roads. These industries have fueled energy sprawl over time, making places like Mobley, WV, the epitome of such development. The increase in interstate development demonstrates the tension between a 'modernized landscape' and 'predominantly agricultural landscape' more closely linked to 'traditional place identities' (Hurt, 2010, p. 72). Although we present a community in north-central West Virginia as a case to highlight these shifts, we contribute to larger

384M. A. CARETTA ET AL.

ECONOMICS

<https://ohiocapitaljournal.com/2023/04/13/commentary-dont-frack-our-state-parks-to-fund-tax-cuts-for-the-rich/>

Ask Ohio Senate President Matt Huffman. He told the Ohio Oil and Gas Association that fracking our public lands is a “great revenue generator” for tax cuts.

FRACKING has NOT brought the great amount of jobs promised!

<https://theconversation.com/the-false-promise-of-fracking-and-local-jobs-36459>

Excellent piece about the so called ancillary jobs in PA and Ohio that just are not there and out of state workers.

The central issue with job projections is how many additional jobs are credited to oil and gas development beyond the relatively small number of people directly employed in oil and gas extraction.

In December 2014, Pennsylvania’s Department of Labor and Industry reported that just over 31,000 people were employed in the state’s oil and gas industry. That figure was higher than the federal data indicates, but appears to be reasonable. However, what’s striking is that the Department attributed another 212,000 jobs to shale development by adding employment in 30 “ancillary” industries.

All employment in these related industries – including such major employers as construction and trucking – was included in this attributed jobs figure. Thus, a driver delivering for FedEx or a housing construction worker were “claimed” as jobs produced by the shale industry.

This is eye-rolling territory for economists. They know that attributing two additional jobs to every one directly created in an industry is very generous. The Commonwealth of Pennsylvania attributed *seven* additional jobs to each one created in the oil and gas industry.

<https://newrepublic.com/article/120873/fracking-creates-jobs-how-many>

he Multi-State Shale Research Collaborative (MSSRC) report on shale employment in the Marcellus states found that shale development accounts for one out of every 249 jobs, while the education and health sectors account for one out of every six jobs.

he MSSRC report demonstrates that only a tiny portion (under 1 percent) of jobs in many of these 30 industries could be related to shale development activities, and further, that Pennsylvania employment in these industries overall changed little before, during, and after the shale boom.

<https://www.forbes.com/sites/kensilverstein/2021/02/04/will-the-fracking-boom-ever-translate-into-jobs-and-income-for-appalachias-residents/?sh=1dc1d58637d6>

Does not equate to jobs

MAN CAMPS

<https://www.beaconjournal.com/story/news/local/2012/07/02/ohio-braces-for-influx-man/10502689007/>

Sexual diseases

<https://www.jstor.org/stable/45216781>

Accidents

<https://www.sciencedirect.com/science/article/abs/pii/S0095069620300267#:~:text=On%20the%20intensive%20margin%2C%20an,not%20Dat%2Dfault%20drivers.>

On the intensive margin, an additional post-fracking well within six miles of a road segment led to 7.1% higher per-capita costs in accidents or additional costs of \$18,883 equivalently. A considerable portion of the increased costs, such as medical expenses and lost wages, might be borne by not-at-fault drivers. In nine drilling states that apply no-fault auto i

OTHER EXTRACTIVE INDUSTRY

Strip Mining

<https://www.nytimes.com/1970/12/15/archives/stripmining-boom-leaves-wasteland-in-its-wake-stripmining-boom.html>

iron furnaces in the Wayne

https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fsm9_005935.pdf

iron smelting

<https://martinsferry.org/development/marcellusutica-shale/>

Map of shale

Honor Banvard

From: rubinfromathens@columbus.rr.com
Sent: Monday, May 8, 2023 12:26 PM
To: JCARR1
Subject: RE: DEPARTMENT OF NATURAL RESOURCES, OIL AND GAS LAND MANAGEMENT
COMMISSION, DRAFT Rule 155-1-01
Attachments: 2023_5_8_comment_OGLMC.pdf

Please find attached my comments for the record.

Thank you,
Anne Rubin
88 Maplewood Dr.
Athens, OH 45701

**RE: DEPARTMENT OF NATURAL RESOURCES, OIL AND GAS LAND
MANAGEMENT COMMISSION, DRAFT Rule 155-1-01**

Dear JCARR members,

I am writing to provide the following comments on proposed Rule 1501:155-1-01.

In signing HB 507 into law, Gov. Mike DeWine stated that his administration would not allow **surface impacts** on our public lands.

"I am instructing the Director of the Department of Natural Resources to continue to follow the processes first established by the General Assembly in 2011 in this area," [DeWine wrote](#). "This includes continuing my administration's policy of prohibiting any new surface use access in our state parks."

As you may know, surface impacts are things like frack well pads, pipelines, pump stations, tank batteries, compressors, access roads, temporary or permanent pits, timber removal, fencing, gates, and water withdrawals.

The Oil and Gas Land Management Commission draft lease, incorporated by reference in Rule 155-1-01, allows oil and gas companies that want any of these surface impacts to create a separate agreement with the agency that manages the public land. Critically, this agreement will be made behind closed doors, with no public notification or comment. Even the commission will not be informed that this is happening.

I attended the public hearings on this proposed rule conducted by the Oil and Gas Land Management Commission on February 1 and April 10, 2023. I spoke at each hearing asking for more time and for a meaningful opportunity for public input in the nomination and leasing process. While the Commission heard from many voices raising these and similar concerns, the Commission has chosen not to incorporate any suggestions from individual public members. At the same time, the Commission made changes specifically requested by an industry representative. We citizens who use and financially support the state's park system with tax dollars deserve consideration at least comparable to that given to special interests who seek to exploit the state's natural resources for their individual or corporate gain.

I am also concerned that the fiscal analysis underlying this rule is limited solely to considering the cost of parcel nomination. No analysis was done of the costs to be incurred by state agencies in the leasing process to protect the integrity of or beneficial public use of the lands involved.

Sincerely yours,

/s/Anne Rubin
88 Maplewood Dr.
Athens, OH 45701
rubinfromathens@columbus.rr.com

Honor Banvard

From: anne sparks <anne.sparks756@gmail.com>
Sent: Monday, May 8, 2023 12:45 PM
To: JCARR1
Subject: Draft Rule 155-1-01

Members of the Joint Committee on Agency Rule Review:

Thank you for the opportunity to comment on Draft Rule 155-1-01 that will govern oil and gas extraction on Ohio public lands, submitted by the Oil and Gas Land Management Commission. When an amendment to HB 507 was hurriedly passed by the legislature in December of 2022, no public hearings were held, and our Ohio public lands are now required to be opened to leasing for oil and gas drilling without any rules providing for public hearings and transparency regarding the leasing process. Clearly, the Oil and Gas Land Management Commission needs to put rules in place, but there is valid concern that what they propose does not explicitly include a process for public notification and comment. It also lacks provision for documenting efforts to adhere to the requirements in the state statute (excerpts shown below with comments in italics).

Thank you for your consideration of these improvements that should be made to Draft Rule 155-1-01.

Sincerely,

Anne Sparks
New Marshfield, Ohio

By [state statute](#), the Oil and Gas Land Management Commission must consider the following when deciding whether to lease a parcel of state land for fracking:

(a) The economic benefits, including the potential income from an oil or natural gas operation, that would result if the lease of a formation that is the subject of the nomination were approved;

In order to assess benefits, the economic harm must also be weighed in, short-term and long-term.

(b) Whether the proposed oil or gas operation is compatible with the current uses of the parcel of land that is the subject of the nomination;

How will the commission judge this.

(c) The environmental impact that would result if the lease of a formation that is the subject of the nomination were approved;

No one on the commission is qualified to assess the environmental impact so experts must be consulted.

(d) Any potential adverse geological impact that would result if the lease of a formation that is the subject of the nomination were approved;

No one on the commission is qualified to assess the geological impact so experts must be consulted.

(e) Any potential impact to visitors or users of a parcel of land that is the subject of the nomination;

There is no information about sources of data that will be considered in order to judge this.

(h) Any comments or objections to the nomination submitted to the commission by residents of this state or other users of the parcel of land that is the subject of the nomination;

The notification process and at least 60 days for comments must be explicit.

Honor Banvard

From: Julie Weatherington-Rice <jweatherington.rice@gmail.com>
Sent: Monday, May 8, 2023 12:23 PM
To: JCARR1; Cathy Cowan Becker; Roxanne Groff
Subject: comments for tomorrow's ODNR hearing
Attachments: testimony to O&G Land Management Commission.pdf; 4-6-23 testimony to Commission.pdf

Dear JCARR,

While I recognize that ODNR has the ability to draft OAC rules under the ORC that controls the operation of the Oil and Gas Commission, it is critically important to remember that the legal applications on takings and setbacks are also controlled by Ohio Case Law. Unless that case law is overturned, it will continue to have repercussions on any and all activities of the Commission. I am attaching the two letters that I wrote to the Commission for your consideration in moving forward.

Respectfully submitted,

Julie Weatherington-Rice, PhD, CPSS, CPG

Julie Weatherington-Rice, PhD, CPG, CPSS
298 W. New England Ave.
Worthington, Ohio 43085
614-436-5248
[Jweatherington.rice@gmail.com](mailto:jweatherington.rice@gmail.com)
January 31, 2023

Oil and Gas Land Management Commission
Ohio Department of Natural Resources
2045 Morse Rd.
Building E. 1st Floor Assembly Center
Columbus, Ohio 43229

RE: The critical need for Public Input in the Permitting Process

Dear Commissioners:

My name is Dr. Julie Weatherington-Rice. I had hoped to come before you to testify today but found at the last minute that I did not have transportation. Your meeting is not being held virtually so I cannot attend that way. Therefore, I am submitting this written testimony to serve as my presentation.

I am here to speak to you about the critical need for public input into the permitting process for oil and gas drilling on our public lands that belong to all of us. Without input from the public, you will hear a one-sided story presented to you by ODNR and you will never know how accurate it actually is. I have been studying the impacts of oil and gas drilling on drinking water here in Ohio since 1977 and I can tell you the impacts have been numerous and long lasting.

ODNR will tell you that there is a 100-foot setback for drilling pads from bodies of water and that is stipulated in the OAC. I can tell you that 100 feet is nowhere near enough of a setback, especially in eastern Ohio hill country. Just how far of a setback is that? Well imagine you typical suburban yard, sloping downhill to your street. Imagine an oil and gas drilling pad set up at the back of your back yard. Now imagine an accidental blowout occurring. How successful do you think you would be in preventing production fluids from draining downhill to your street, especially while all the workers were busy trying to shut down the blowout? It's easy to visualize the mess and the contamination that would occur.

Our Public Lands are crisscrossed with stream, rivers, ponds, wetlands and lakes. Some of those bodies of water provide public water supplies to facilities at our State Parks. Those bodies of water are teeming with life, often with rare and endangered species. If those bodies of water are impacted by a release from a drilling site or from a production water transportation system, the impacts could be catastrophic. When we instituted the Franklin County Greenways Riparian Corridor protection program 30 years ago, we tried to make the easement buffers as wide as we could, especially in areas of potential contamination. All these years later, we have more than 75% of the 720 miles of riparian streambanks in Franklin County protected. Those

easements are held by municipalities, townships, MetroParks and Franklin Soil and Water Conservation District. We have protected our waterways by building bikeways and strings of parks along the corridors. We have successfully limited the amounts of contamination passing through those protected corridors through our forested and prairie buffer strips. The same protection can be achieved on our State-owned Public Lands, but not with 100-foot setbacks in hill country.

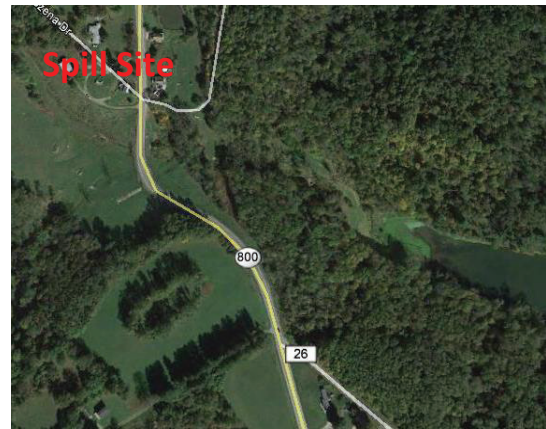
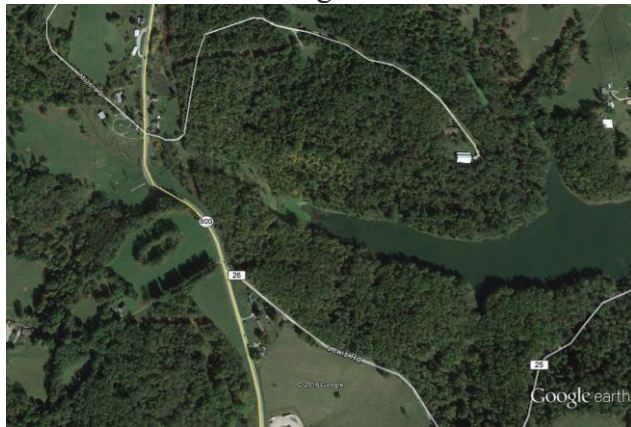
Just how many times have there been accidental and deliberate contaminations of Ohio's water from oil and gas over the years? I lost count many years ago, so I'm just going to tell you about two, the summer 2014 Eisenbarth Statoil oil well explosion and fire and the contamination of Barnesville's No. 1 Reservoir in March 2016.

The Eisenbarth Statoil well pad explosion and fire is the type of event that causes nightmares, even for the industry. Wells had been drilled and the pad was scheduled to be hydraulically fractured that day when something terribly wrong and the pad exploded. The fire burned for five days. Volunteer fire teams from multiple counties and two states responded but no one knew what was on the site because the work trailer on the site that held the Safety Data Sheets (SDS) was on fire. It was a miracle that no emergency responders or neighbors died that week. In the end, runoff from the well pad fire flowed down hill to Opossum Creek where it killed every living thing in the creek for more than five miles before the creek drained into the Ohio River. Over 70,000 fish were found dead. No one knows how much setback would have been enough to protect the creek, but clearly, what there was, was not enough.

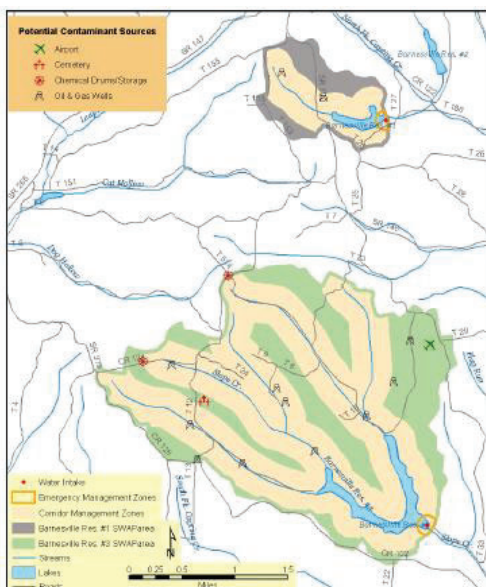


While it may not have been possible to avoid the Eisenbarth well disaster, the contamination of Barnesville's No. 1 Reservoir was completely avoidable. Barnesville, located in Belmont County is the regional Public Water Supply for parts of four counties covering 80 square miles. In a region of extensive strip mining, pristine watersheds that can be dammed up to hold reservoirs for drinking water are treasured. ODNR only provides a 100-foot setback from the reservoir shoreline for the location of drilling pads. But it was not a drilling pad accident that took out the reservoir; it was a tanker truck carrying "sweetwater" according to its Oklahoma manifest in the truck, from a well pad in Monroe County to an injection well near I-70.

Now Barnesville is very protective of their water supplies and has a robust Federal Safe Drinking Water Act Source Water Protection Management Plan and an Ohio EPA certified Source Water Protection Area (SWPA) for their designated areas in place. Any hazardous chemicals should not be transported through the SWPA but oil and gas brine is exempt, even though it's full of radioactive and heavy metals, BETX and forever chemicals of unknown volumes and descriptions. So one rainy March night, a brine hauler took a short cut through the SWPA and went off the road, dumping his load into the creek draining into the No. 1 Reservoir.



The spill site was clearly within the Ohio EPA certified Corridor Management Zone. Since the tanker truck was not carrying an accurate manifest, Ohio EPA shut down the intake to the Water Treatment Plant on Reservoir No. 1 and started testing for everything they could think might be in the tanker. It took more than three months of spring rains before the reservoir was flushed enough to be considered safe to drink again. Fortunately, Barnesville had two other reservoirs that they could tap. But what if the spill had happened in August with no rains and there had not been the two other reservoirs. What would all those people in eastern Ohio have done for drinking water?



Clearly, the take home message here is just because something is legal, doesn't make it a good idea. You will not be charged by ODNR to put any more safeguards in place that what the law requires. If you are not talking to the public who can tell you about the special circumstances for each of your proposed drilling sites, you will never know what the real concerns are. You will never know that a rare and endangered species is living in that State Nature Preserve just downhill from the proposed drilling pad. You will never know that the brine hauling trucks servicing that pad will be driving right by the reservoir and water treatment plant that supplies potable water to that State Lodge that we just renovated with public taxpayer money. And you will miss so many more important facts that you should consider before you decide to issue that

permit. Modern drilling practices make it possible to scoot a drilling pad to a safer location and still tap all the reserves under the site. By moving the pad, you are not creating a "taking" of a

mineral resource. You have not denied an industry simply by protecting our public lands and their soil, water and air.

Please consider my comments as you formulate the rules by which you will conduct the business of the Commission. Please chose to hear from the local residents and elected officials of the area who know the land the best. Thank you for your attention.

Respectfully submitted,

Julie Weatherington-Rice, PhD, CPG, CPSS
(For identification purposes only)
Former Member Governor's Oil & Gas Regulatory
Review Commission, 1986-87
Member, Ohio Oil and Gas Brine Task Force
Sr. Scientist,
Bennett & Williams Environmental Consultants Inc.
Former Adjunct Professor
Dept. Food, Agricultural & Biological Engineering
The Ohio State University
Associate Board Member
Franklin Soil & Water Conservation District

JWR/jr
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April 7, 2023

Amended testimony to correct topos

ODNR Oil & Gas Land Management Commission
Via e-mail

RE: Drilling on State lands, public safety and final well closure, who pays?

Dear Commissioners;

Thank you for this opportunity to submit comments on the above cited three issues. My name is Dr. Julie Weatherington-Rice. I am a geologist and soil scientist working in the fields of soil, water and air protection in Ohio. I have been studying the impacts of oil and gas drilling on Ohio's environment and her people since 1977 in a range of capacities. I serve as a member of the Ohio Brine Spreading Task Force.

Drilling on State Lands

Governor DeWine is on record as stating that there will be no drilling activities on State-owned lands. All drilling pads and associated activities will take place on private lands next to the State land boundaries. While that is a laudable position to take, it's really not his decision. The placement and locations of drilling pads depend on three factors. They are as follows:

1. The distance a horizontal lateral well boring can be drilled. At this point in time, the industry can routinely drill a lateral well boring one mile. With care, they have been able to extend laterals up to approximately two miles.
2. The shape and size of the State land that has been leased.
3. The Ohio Supreme Court case law regarding "takings" of mineral rights.

The assumption is made that well pads will be established at the property boundaries of the State lands on private property. This assumes that such locations can be found and that placement there allows the drilling company to efficiently reach the oil and gas reserves under the privately leased lands as well. To determine if the whole State property can be drilled from pads outside the property boundaries, it is necessary to examine the size and geometry of the State property. This is achieved in the following method. It can be calculated by hand but is most efficiently undertaken on a computerized Geographic Information System (GIS) like ArcView:

1. Create a map of the State land parcel under consideration at a scale that is easily reproduced.

2. Starting on the outside property line, create a one mile buffer into the land parcel. This is the area of the State property that can be expected to be successfully reached with horizontal laterals. Are there areas of the State property that are not covered by the one mile buffer?
3. If there are areas that cannot be covered by the one mile buffer, construct a second buffer that measures two miles wide from the property boundaries. This distance encompasses the longest laterals that the industry is currently drilling. They are not always successful. Are there still areas within the state property that are not covered by the two mile buffers? If so, these areas can only be reached by installing drilling pads within the State property.

Does the State have to permit drilling pads on State property to reach areas that cannot be reached by drilling pads on adjacent private property? A careful reading of the Ohio Supreme Court decision, *State ex rel. R. T. G., Inc. v State*, 98 Ohio St. 3d 1, 2002-Ohio-6716 indicates that if ODNR does not grant the right to construct drilling pads on State land to reach areas that cannot be drilled from the boundaries, they are instituting a “takings” of the leased oil and gas rights, which they had to grant in the first place. If the courts find them at fault, the State must pay the retail cost of every barrel of oil and/or cubic foot of gas that the drillers cannot recover. No allowances were made in the Pleasant City case to deduct the cost of recovery of, in that case, coal, or the costs of impacts to the wetlands (which was more than the retail value of the coal).

Likewise, it is expected that the court would base the fine against ODNR on the total volume of oil and gas, not the less than 10% of the resource that current drilling actually extracts. Of course, there is always the hope that at some point in the future it will be cost effective to go back in and recover more products if this current drilling process does not prevent that from ever happening. It cost ODNR approximately \$5 million dollars to settle the Pleasant City case. The Agency can never say “no” to the industry as long as that case decision stays on the books.

Public Safety

It’s important to remember that when drilling pads are constructed on State lands, the standard rural setbacks typically apply, 100 feet from an occupied dwelling which would include a lodge or cabins, and 100 feet from a river or lake. These close proximities to the general public create a huge risk to anyone using the State lands.

Oil and gas drilling and well development are inherently a very dangerous effort. Even when the well is producing or later, when it is shut in waiting to be grouted and plugged, there are still risks. Casings break, wells blow out, they catch fire and explode. A subset of wells drilled each year fail, sometimes with catastrophic results. Ohio has experienced these failures in the past. Over time, casings corrode and the cement grouting surrounding the casing strings crack and fail. Sometimes this happens because of earth movements, i.e. earthquakes, often, it’s the slow reaction of the acidic rocks in Ohio simply rusting and pitting the casings.

In eastern Ohio, where the much of the landscape is underlain with abandoned underground coal mines, failure of casings can be even more dangerous. While we have good maps that show us where known mines exist, there are many mines, perhaps as many as 40% in some areas that we have no records for. They were family mines, dug before maps were

required or the last map submitted was drawn at some point in time before the mine was closed. A casing failure in a mine can leak undetected for years, allowing gas to migrate through the old workings for miles, only to come out of air vents, mine shaft openings and sink holes some distance from where the original leaking well exists.

That movement can also occur along natural joints and faults in the earth as we have recently seen in Washington County with the Red Bird SWIW. Again, we have some records of where these faults exist in Ohio but we don't know where all of them exist and we keep finding new ones as the oil and gas industry trigger them with the fracturing of production wells and the creation of SWIW's.

A review of evacuation zones here in Ohio range from one-half mile radius of the well pad to two miles. Others will discuss the need for ODNR to create their own health and safety plans for each drilling site. I will simply reserve my comments to the fact that while not every well fails, all wells have the potential of failing. Since we do not know ahead of time which wells will fail, when dealing with the safety of the public, we must assume that every well may fail. Therefore ODNR needs to create a "no man's land" perimeter around each active drilling site that cannot be entered by the public while the pad is being constructed, drilled and the wells developed. The buffer ratio should be two miles with the full understanding that if something goes seriously wrong, an emergency evacuation zone of a greater distance may be warranted. ODNR will need to work closely with their first responders on this issue.

Closing the well and grouting it shut, who pays?

While an oil or gas production company will be responsible for the drilling, development and management of the well, typically, they do not own them. Most wells are individual Limited Liability Corporations and the funds used to pay for their drilling and development are raised from third party sources. The costs of drilling and development of the well is amortized over a 30-year period, like a 30-year mortgage on a house. However, unlike the house that is expected to still be standing and have grown in value in the passing 30 years, horizontal shale oil and gas wells show steep production decline curves and have reached very low levels of production five years after they come on line. Newer wells are failing even faster. That leaves a more than 20 year mortgage to be paid with no appreciable income to meet the payments, let alone the royalties. When this happens, the well pad LLC is declared bankrupt in the Oklahoma or Texas courts where they were incorporated, secured creditors are paid first. Land owners with royalty claims are not considered secured creditors and usually get nothing. Usually, enough funds are not raised from the assets to pay off the mortgage for the drilling and development, let alone funds to close and plug the well.

This condition leaves two sources of funding to close and plug the well. The first are the local landowners who received royalties from the well. Of course, the cost of closure and plugging often exceeds the funds realized from the few short years when royalties were paid. If the local landowners cannot pay for the closure and plugging of the well, it then becomes an "orphaned well" and is added to the list of wells that ODNR is slowly working to close and plug. It is important to realize that there are tens of thousands of wells in front of these wells, waiting in line to be closed and plugged. Also, it is important to remember that until the well is closed

and plugged, while it is simply shut in, there is the ever increasing risk that the casing will rupture and the well could cause an emergency. With this in mind, it would behoove the State to invest their royalty checks wisely as those funds will be needed to help pay the closure and grouting expenses for the wells once the management companies abandon them. Does this sound like a Ponzi scheme? It is. Who benefits? The politicians are the ones who benefit most; they took campaign contributions from the industry. One would think that Ohio would have learned our lesson from the First Energy case, but that does not seem to be what happened last December when the amendments that established this situation were attached to a poultry bill.

Summary

This concludes my comments for this hearing. If you have questions, concerns or need further clarification, please feel free to contact me. Again, it has been a pleasure passing on my hard earned knowledge of the oil and gas industry. While I totally understand that your hands are tied and you are powerless at this point to reverse the situation, at least we are able to place our important information into the public record so that it is available at a later point in time when it is needed.

Respectfully submitted,



Julie Weatherington-Rice, PhD
Ohio Brine Spreading Task Force
For identification purposes only
Sr. Scientist,
Bennett & Williams Environmental Consultants Inc.
Former Adjunct Professor
Dept. Food, Agricultural & Biological Engineering
The Ohio State University
Former Public Member
Governor's Oil and Gas Regulatory Review Commission
Associate Supervisor
Franklin Soil and Water Conservation District
Education Committee and Newsletter editor
Association of Ohio Pedologists

JWR/jr

Copies: Ohio Brine Spreading task force
file

Honor Banvard

From: Denise C. Woods <denisecw@roadrunner.com>
Sent: Monday, May 8, 2023 11:08 AM
To: JCARR1
Subject: Please do not frack in Ohio's state parks

I am concerned about the consequences to our parks if we allow drilling and fracking in and under our state parks. I have read many, many well-conducted studies revealing the health problems resulting from toxic fumes from wells, how often and badly they leak, how many are not well-managed, and how dangerous they are. I also know that drilling and fracking operations will disrupt the entire purpose of the parks: to provide nature with some breathing room away from human interference, and to provide humans with a place to gain solace and experience awe. With the arrival of a single drilling rig, the quiet, the natural setting, the safe harbor for animals is gone. Please do not undo what Ohio's state parks have been accomplishing for over 80 years. Please do not allow drilling or fracking in, near, or under our state parks.

Denise C. Woods

1509 Shade Road

Akron, Ohio 44333

330 - 666 - 7579

denisecw@roadrunner.com

Honor Banvard

From: Melinda Zemper <mzemper@fuse.net>
Sent: Monday, May 8, 2023 3:02 PM
To: JCARR1
Subject: JCARR Committee Letter on Fracking in Ohio State Parks and Public Lands
Attachments: By Melinda Zemper.docx

>
>> Hello JCARR Committee Members,
>>
>> Attached are my thoughts to consider in your discussion and decisions regarding fracking in Ohio state parks and public lands.
>>
>> Thank you,
>>
>> Melinda Zemper
>> West Chester, Ohio

Melinda Zemper
West Chester, Ohio

What do Ohioans want? Surely not fracking on, in or under our state parks and public lands

Dear JCARR Members,

We live in a divided political environment, yet sensible people can agree on a few very basic things:

--We need clean air, water and good soils to lead healthy lives.

--We need permanent, decent-paying jobs to attract and keep people who want to live here.

Fracking Ohio's 800,000 acres of state parks, forests, wildlife areas, historic sites, college campuses and transportation corridors will provide neither.

In fact, fracking will pollute our natural resources while chasing away people who value good health and good jobs. Additionally, the fracking process involves the escape of dangerous methane into the atmosphere, which makes up 30 percent of all global carbon emissions.

Let's think for a moment about the ideal place to live.

Is it Florida, with wonderfully warm winters, but searing heat and humidity that makes it unbearable from May to September?

Is it California or Arizona, where the sun always shines, but growth is limited by the amount of fresh water available to support it?

Or is it Ohio, home of 11 million people, many of whom have lived here for generations and would like to be encouraged to stay?

Right now it looks like **Ohio is in the middle third of all states** regarding livability as global temperatures rise. But even that ranking is at risk if fracking—which uses hundreds of millions of Ohio's fresh water per year and replaces it with wastewater poisoned by unregulated toxic chemicals—is allowed to continue.

Ohio's location near the Great Lakes should help us endure some effects of global warming. The lakes make up 20 percent of the world's freshwater supply. And the **Great Lakes make up 84 percent of North America's fresh surface water.**

Which makes it all the more disturbing that Ohio's current lawmakers are pushing us backward into a climate abyss as they pass and promote laws like HB 507.

Fracking is not an enticement for people to live here—it's a warning to stay away.

If you had to choose, would you move your family to East Palestine to raise young children there right now?

We all know the fracking process pollutes the air, water and land and unregulated toxic chemicals used in fracked wells and its wastewater are known to be especially dangerous for children and the elderly, especially those who live close to fracked wells. Fracking is directly linked to **increased childhood leukemia, premature death for the elderly, low birth weights and endocrine disruption.**

The number of permanent jobs the fracking industry was supposed to create for Ohioans has not paid out either. Despite JobsOhio providing a *minimum* investment of \$70 million to build out oil and gas industry infrastructure over the last decade, **how many permanent jobs** have been created for everyday Ohioans? Eastern and southeastern Ohio counties where most fracking has already occurred still report higher-than-average unemployment rates.

So has fracking been a job builder for Ohio? I would say no. And who except voters will hold the Ohio General Assembly and JobsOhio accountable for that miscalculation and gargantuan waste of taxpayer funds?

And who among you thinks Ohio should require a **mere 8.5 percent of electricity** sold by Ohio's electric distribution utilities or electric services companies should be generated from renewable energy sources by 2026? The Public Utilities Corporation of Ohio does.

Other states—and countries—have plans they are implementing now to get on the path to net zero.

Why don't we?

I'll bet the average Ohioan—the average voter—doesn't want fracking in Ohio. We're already engaging in regenerative farming, buying EVs and putting solar panels on our home and garage roofs and windmills on our farms. We're already joining energy aggregation purchasing groups and making plans to build community microgrids. We want to save money and the planet, and let our children and grandchildren know that we did all we could to keep rising global temperatures down. This may be a small movement in Ohio right now, but it's growing and will likely only continue to grow.

Eliminating fracking and new gas and oil projects has become urgent. The world is moving swiftly toward clean, sustainable energy and cities across the nation are developing and

implementing plans to become net-zero cities and states. Climate scientists say we must move ever faster to limit rising global temperatures to 1.5 degrees so our children and grandchildren will not endure mass extinctions of ocean, plant and animal species.

Yet the United Nations reported just last week that we now have about a **50/50 chance** of reaching 1.5 within the next five years.

This is disturbing news, but it also means we must stop procrastinating on sustainable energy.

As you make recommendations for lease agreements regarding fracking in our state parks and public lands, I ask you to discuss frankly among committee members why Ohio lawmakers are eager to sign over the rights to our beautiful recreational and natural spaces to the fossil fuel industry when the **wind and solar capacity will outstrip coal and oil** in just one or two years?

The oil and gas industry takes **four million gallons of fresh water** out of circulation for each fracked well in Ohio and replaces it by injecting wastewater laced with unregulated toxic chemicals deep underground. This is water that will be lost to humanity forever for drinking purposes.

How is that a wise choice for those of us who drink water both now and in the future?

One final question: who will benefit from the desecration of our air land and water? We know it won't be the average Ohioan. Surely it will not be our children or grandchildren.

It will be only the fossil fuel industry and Ohio politicians who exchange legislation supporting it for dark money and campaign donations.

What a terrible price for Ohioans to pay so a few supermajority politicians can stay in power for another term.

It is your job as JCARR members to think clearly, ask sensible questions, and protect Ohio's natural resources. Please remember that your ultimate responsibility is not to a political party. Your responsibility is to your families, neighbors and fellow citizens.

Jacques Cousteau, the late oceanographer, filmmaker and author, once said that we forget that the water cycle and the life cycle are one.

You must find a way to stop fracking in our state parks and public lands. The health, wellbeing and future of Ohio and humanity depends on your decisions.

#

Ohio is in the middle third of all states. <https://www.policygenius.com/homeowners-insurance/best-and-worst-states-for-climate-change/>

Great Lakes make up 84 percent of North America's fresh surface water.
<https://glisa.umich.edu/sustained-assessment/great-lakes/#:~:text=The%20Great%20Lakes%20make%20up,Lawrence%20Seaway>

increased childhood leukemia, premature death for the elderly, low birth weights and endocrine disruption. <https://e360.yale.edu/features/fracking-gas-chemicals-health-pennsylvania>

how many permanent jobs. <https://energynews.us/2022/11/28/why-ohios-top-oil-and-gas-producing-counties-continue-to-lag-in-jobs/>

mere 8.5 percent of electricity. <https://puco.ohio.gov/utilities/electricity/resources/ohio-renewable-energy-portfolio-standard>

50/50 chance. <https://news.un.org/en/story/2022/05/1117842>

capacity for wind and solar will outstrip coal and oil.
<https://www.weforum.org/agenda/2020/11/iea-wind-solar-gas-coal-oil-renewables-climate-change-environment>

four million gallons of fresh water. <https://www.americangeosciences.org/critical-issues/faq/how-much-water-does-typical-hydraulically-fractured-well-require>