

REPORT OF THE OHIO CITIZENS TRIBUNAL ON THE HUMAN RIGHTS IMPACTS OF FRACKING

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INTRODUCTION

This is the Final Report of the Ohio Citizens Tribunal on the Human Rights Impacts of Fracking. “Fracking” is a term that popularly describes a revolutionary industrial process employed by the oil and gas industry to extract fossil fuels, including oil, natural gas, and other flammable liquids, from previously inaccessible layers of extremely deep rock. The contemporary fracking process thrusts chemicals and massive amounts of fresh water, measured in the millions of gallons per well, at high pressure to pulverize, or in industry jargon “fracture,” the deep rock strata with such force and over such a large area that the oil and natural gas they contain can become mobile and brought to the surface in commercially significant volumes. The resulting fractures are held open by sand particles injected into the well, but at the high pressures caused by the great depths involved, the fractures soon close requiring that the same well be re-fracked multiple times.

The economic viability of fracking for the oil and gas industry is made possible due to four additional industrial processes: 1) the development of horizontal drilling, through which an initial well drilled vertically for a mile or more can then be turned to travel horizontally through the target rock layer for miles exposing vast underground areas to being exploited by a single well, 2) the use of specially formulated chemicals that promote the most extensive possible fracturing of the rock, 3) the ability to transport the released fossil fuels to distant markets through a new generation of massive pipeline projects dependent on laws that allow pipeline companies to seize private property, and 4) the industry’s ability to dispose of the massive amounts of water contaminated during the fracking and production process cheaply and easily, mainly through the use of “injection wells” also drilled deep underground.

Through these processes, the fracking industry has become truly massive in size over the past decade with capital investments measured in the billions of dollars. This scope of investment has made an already powerful oil and gas industry even more dominant in the nation’s economic and political spheres, including in the State of Ohio.

The spectacular rise of fracking has come with a profound price, both to the environment and to the citizens caught up in the dramatic alterations to their lives that fracking brings in its

wake. A key feature of the fracking story is that it has become ascendant at the same point in history that America's political system at all levels is flooded with corporate money and an accompanying corporate political philosophy that has succeeded in severely handicapping both the regulatory power of government authorities and the role of science to guide sound policy. Making matters distinctively more ominous, the oil and gas industry entered this troubled era of compromised government with a major advantage as it is the only industry sector causing significant environmental harm that has no federal regulatory program to provide a minimum standard for safety or accountability. Except for injection well disposal where the U.S. EPA has a badly neglected role, affected citizens are at the mercy of campaign cash dominated state legislatures and judges and of industry-friendly state agencies for the only protections they have from the hazards of fracking. Combining the weakened state of American democracy with the heightened danger from the toxin-heavy fracking industry has proven to be a dangerous combination without precedent for citizens caught between this well-organized industry and acquiescent government officials.

The breakdown in the accountability of the fracking industry is leading citizens across the United States to question whether they are receiving even the most basic of human rights when their interests conflict with those of the fracking industry. To obtain an answer to this question, Ohioans who live daily with the real-world impacts of fracking in their communities convened a Citizens Tribunal in the summer and fall of 2017 to take testimony of those impacts and compare their experiences to the standards set by the global community for universal human rights over the course of the last seventy years. Chief among those standards were those established by the United Nations including the Universal Declaration of Human Rights adopted in 1948, the International Covenant on Civil and Political Rights adopted in 1966, and the International Convention on Social, Economic and Cultural Rights, also adopted in 1966.

The United States has formally approved these declarations as applying to all human beings living everywhere on Earth and it therefore is the formal policy of the United States government to take the actions needed to protect these rights. There is a distinct irony not lost on the citizens participating in the Tribunals that these declarations of human rights under international law were motivated by the need to protect people in colonies ruled by foreign powers and those living under authoritarian regimes as they approach their own unresponsive government authorities to obtain due consideration of their most basic needs of health and safety and to achieve accountability over the fracking industry.

This report will first provide context through a brief overview of the oil and gas industry in Ohio and the development of human rights under international law. This report will then review in highly summarized form the testimony taken at the two Ohio Citizens Tribunals, held in Athens, Ohio on May 13, 2017, and Youngstown, Ohio on July 29, 2017, to assess whether that testimony establishes that Ohioans are receiving their basic, internationally guaranteed human rights when they are impacted by the fracking industry. The report will then conclude with recommendations to ensure that any violations of those rights suffered by Ohioans are justly and adequately remedied.

A BRIEF HISTORY OF THE OIL AND GAS INDUSTRY IN OHIO

Ohio has a long history with the boom and bust cycles of the oil and gas industry dating back to the Gilded Age of the late Nineteenth Century. In 1884, the discovery of a large oilfield in the Lima area of northwest Ohio quickly made Ohio the world's largest oil producer. Ohio's first oil boom peaked in 1896 when this field had 70,000 wells producing 24 million barrels of oil. This boom collapsed into Ohio's first oil bust by 1910. The oil industry of this period was dominated by the world's first major multinational corporation, the Standard Oil Company, which was founded by John D. Rockefeller in Cleveland in 1870 before it was declared an illegal monopoly by the Supreme Court and broken up in 1911.

Ohio's oil industry remained largely dormant with declining production until 1961 when the boom cycle returned with the discovery of an oil field in Morrow County, approximately fifty miles north of Columbus. Pictures from that time show residential neighborhoods with an oil derrick in virtually every yard as any successful well was soon surrounded by multiple rigs each seeking the same underground pool. This dangerous chaos led the Ohio legislature to create a state oil and gas program in 1965 in the Ohio Department of Natural Resources ("ODNR") with the principle purpose of enforcing spacing regulations between wells. By 1970, the Morrow County field was exhausted, and the bust cycle returned.

The boom returned following the passage of numerous incentives in the federal Natural Gas Policy Act in 1978, leading to over 3,000 new oil and gas wells were drilled annually in Ohio between 1978 and 1985. While the law promoted natural gas development, it contained no provisions for environmental protection or federal oversight, leaving state governments as the sole source of any protection that citizens might receive. Many of these wells were located in heavily populated suburban areas of northeastern Ohio where public opposition to drilling became significant. This third boom hit its peak in 1981 with 6,000 new wells before it too collapsed; by 2002, only 500 wells were drilled.

The current boom cycle started in 2011 with the advent of horizontal fracking in the deep Marcellus and Utica Shale formations predominantly found in the Appalachian counties of eastern and southeastern Ohio. In the previous year, Ohio had had the smallest number of wells drilled since 1965 with just 427. Most of the producing wells in Ohio at that time (over 60,000 wells) were considered "stripper wells" that produced minimal amounts daily (less than 10 barrels of oil or 60,000 cubic feet of gas). That pattern was completely reversed when 25 horizontal fracked wells were drilled in 2011 in 10 counties.

By the end of 2016, there were 1,506 horizontal fracked wells in production in Ohio; these wells reported production to ODNR of slightly over 18 million barrels of oil (1 barrel = 42 gallons) and over 1.4 trillion cubic feet of natural gas. These wells are primarily concentrated in Belmont, Carroll, Columbiana, Guernsey, Harrison, Monroe and Noble counties. In pre-fracking 2010, oil production had been approximately 4.8 million barrels and 78 billion cubic feet of

natural gas, creating a 375% increase in oil and 1,800% increase in natural gas in six short years. These numbers can significantly increase at any time as many horizontal fracked wells are not currently in production (often due to periodic low prices or the lack of transport capacity such as pipelines). As of September, 2017, 2,118 horizontal fracked wells have been drilled in Ohio and 2,604 permits for such wells have been issued by ODNR's oil and gas program.¹

THE WASTE PROBLEM: CONTAMINATED FLOWBACK, PRODUCED WATER AND INJECTION WELLS

This increase in fossil fuel production was, of course, accompanied by an equally dramatic increase in the production of contaminated wastewater that is inherent in all oil and gas operations, although with far greater volume and toxicity due to the scale and new processes that make horizontal fracking commercially viable. When wells are fracked, millions of gallons of freshwater contaminated by fracking chemicals are injected under high pressure into the target rock formations to split the rock apart. When the fracturing is completed, the high injection pressure ceases and the weight of the rock above the production zone creates pressure that forces much of this contaminated water in the pulverized rock back up the well. The industry calls this highly contaminated fluid "flowback." Flowback includes not only the residue of fracking chemicals but also materials long buried in the deep rock layers including radioactive isotopes and toxic heavy metals, as well as ancient, extremely salty sea water.

The far greater water volumes used in fracking have greatly compounded the problem of flowback disposal for the oil and gas industry. The U.S. Department of Energy estimates that flowback averages from 30% to 70% of the original water used to fracture a horizontal production well² and that flowback may continue for months after a well is completed. The amount of water used in fracking horizontal wells has been increasing dramatically from an average of 3 million gallons in 2009³ to where some Ohio wells now report using over 30 million gallons. Also, as production often rapidly falls off in horizontal wells, it is becoming standard practice to "refrack" the well periodically which creates new rounds of flowback production.

After the flowback from the initial fracking process is exhausted, all oil and gas wells constantly produce additional wastewater as previously trapped ground water accompanies the oil and gas to the surface. The industry calls this form of wastewater "produced water," although Ohio statutes use the equally deceptive term "brine" reflecting that most of this water is from ancient, salty seas. This "produced water" is contaminated by far more than salt however, as it also has dissolved within it many of the same contaminants as flowback, including toxic heavy metals often in the form of radioactive isotopes.

The vast majority of this combined flowback/produced water waste stream is legally disposed in deep wells called "injection wells." Injection wells are also drilled into deep rock

¹ Sources from the annual Ohio Oil & Gas Summary prepared by ODNR and more recent data from ODNR's website at <http://oilandgas.ohiodnr.gov/shale#SHALE>.

² https://energy.gov/sites/prod/files/2013/03/f0/ShaleGasPrimer_Online_4-2009.pdf, p. 66.

³ *Idid.*, p. 64

strata where the waste is injected at high pressure that fractures the rock sufficiently to give access for the massive volumes generated by the industry. Unlike production wells that use high pressures only during the fracking process itself, injection wells constantly use high pressure and therefore constantly pulverize the target rock formation in order for the waste to keep moving underground. With each year of operation, the wastes from injection wells moves farther and farther away through increasingly compromised rock layers into areas of unknown geologic qualities.

In Ohio's first year of fracking, 2011, Ohio injection wells reported disposing of 12,597,110 barrels (or 529,078,620 gallons) of these wastes; by 2016, the amount disposed had grown 240% to 30,227,235 barrels or (1,260,543,870 gallons). To accommodate this increase in disposal volume, the number of injection wells for oil and gas waste permitted by ODNR has increased from 144 in 2011 to 239 today. It is noteworthy that the surrounding states of Pennsylvania and West Virginia also allow horizontal fracking, but have less than two dozen injection wells each, resulting in most of their flowback being trucked to Ohio for disposal.

OHIO'S REGULATORY PROGRAM FOR OIL AND GAS

Ohio's regulatory system found itself poorly prepared in 2011 for the challenges created by the introduction of horizontal fracking by well-organized, politically potent oil and gas corporations. After it was created in 1965 to enforce the spacing requirements found necessary after the chaos in the Morrow County oilfield, the ODNR oil and gas program was very small with just 27 full-time employees by 1977. The program was staffed up considerably in response to the next boom cycle that followed the 1978 Natural Gas Policy Act with peak employment in 1986 of 124 employees. For the first time in its history, the program took on a serious enforcement posture at that time with 43 inspectors, eight investigators specializing in collecting evidence for enforcement cases, and three assistant state attorneys general to prosecute enforcement cases.

The program was funded by general state revenues, permit application fees paid by the industry, and by a "severance tax" on the oil and gas produced.⁴ The severance tax was increased in 1983 to 10 cents per barrel of oil and 2.5 cents per thousand feet of natural gas. This severance tax was by far the main funding source for the program and made possible its rapid growth in the mid-1980's. After the severance tax was passed, however, the legislature stopped appropriating it any money from general state taxes, thus its funding became entirely dependent on the success of the industry itself and its continued growth in production. The program's interests and those of the industry thus began to merge and create at ODNR what many perceive to be a built-in conflict of interest.

As should have been obvious in this funding scheme, the subsequent bust in production in the late 1980s resulted in a massive funding loss for the program. From a funding high of \$6.9

⁴ Ohio Revised Code ("ORC") Section 5749.50. The Ohio Revised Code is where all the statutory law enacted by the Ohio General Assembly, our legislature, is located. The statutory text can be found on-line at: <http://codes.ohio.gov/orc/>

million in 1986, by 2007, the program received only \$3.2 million. The legislature made no effort to address this shortfall. The result was a catastrophic drop in staffing from 124 in 1986 to just 35 employees by 2007, a reduction of 72%. The first major staff cut occurred in 1991 with a devastating 42% loss in staffing that included all the investigators and assistant attorneys general that formed the core of the enforcement program, never to return. Even the program's enforcement coordinator position was eventually abolished. By 2001, the program had just 14 inspectors – this was at a time when Ohio still had over 63,000 active wells needing inspection. As could be expected, the program's enforcement effort had virtually ceased with a low of only \$4,250 in fines collected statewide in 2005. The anti-environment partisan politics that began during the 1980's played a major role in this savaging of the program and the virtual elimination of its enforcement capacity that had become a major target of the oil and gas industry. This was the woeful state of the state's oil and gas program at the onset of fracking.

A program this skeletal was clearly unable to meet public expectations, especially after the explosion of concern caused by the many wells drilled in Ohio's suburban areas during the boom of the early 1980's. The remaining staff were incapable of responding to public complaints and a program with historically little public outreach was soon completely isolated from an increasingly distressed public. To fill this vacuum, many local governments passed ordinances regulating drilling until the industry struck back in 2004 with state legislation that prohibited all local regulation and made ODNR's tiny, ineffective program the "sole and exclusive authority to regulate the permitting, location, and spacing of oil and gas wells".⁵

In 2010, the year before Ohio's first horizontally fracked wells, the Ohio legislature was prodded by industry lobbyists to take the first step to facilitate the upcoming fracking era with the passage of Senate Bill ("SB") 165. The bill explicitly authorized fracking by adopting into statute another misleading term, "well stimulation," which was defined to mean "the process of increasing well productivity, including hydraulic fracturing operations."⁶ In an ominous sign of things to come, SB 165 also refined the "mandatory pooling" process of Ohio law by which ODNR has extremely broad authority to issue orders that force landowners who refused to contract with a driller for the oil and gas under their property to be involuntarily forced into participating in the well.⁷ The bill modestly addressed the program's staff shortage by increasing application fees, establishing a new fee on wastes disposed in injection wells, and while it did not increase Ohio's severance fee, it did create a new "regulatory cost recovery assessment," of a half cent for each thousand cubic feet of natural gas and another dime for a barrel of oil (now 20 cents total). The state program was able to modestly increase its staffing with these new funds but at the cost of magnifying concern that being completely dependent financially on oil and gas production makes the program even closer aligned to the industry in it supposed to regulate.

After fracking had begun in southeastern Ohio, the legislature passed additional industry backed changes to Ohio's oil and gas and public utilities laws in 2012 in Senate Bill 315. The

⁵ ORC 1509.02. ORC Chapter 1509 is the chapter of the Ohio Revised Code where almost all statutes governing the oil and gas industry and the ODNR oil and gas program are located.

⁶ ORC 1509.01(Z).

⁷ ORC 1509.27; there is also a somewhat different process of forced participation called "unitization" in ORC 1509.28.

bill plainly approved the use of horizontal well drilling in the Utica and Marcellus shale formations of southeast Ohio by name, adopted extensive trade secrecy protections for the chemical formulas used in fracking fluids based on “model” legislation created by the secretive corporate body called the American Legislative Exchange Council (“ALEC”), authorized the construction of a wide variety of facilities to process natural gas and oilfield wastes, and facilitated the siting of natural gas pipelines.

The new powers in these and subsequent bills designed to back the rapidly expanding fracking industry greatly expanded ODNR’s workload but without giving it adequate resources. By 2012, ODNR had increased its inspectors to 30, but even this expansion left it able to inspect less than 20% of the state’s producing wells annually. To oversee older wells and the rapidly expanding and far more hazardous fracking wells, ODNR publicly stated in 2012 that it needed 90 inspectors.⁸ To meet this target, the Kasich Administration proposed a significant increase in the state’s oil and gas severance tax which was then one of the lowest in the country. The oil and gas industry strongly opposed this increase and Ohio’s legislature again was in lockstep with the industry’s wishes and nixed this proposal in that year’s state budget bill – as well as in the two budget bills adopted since then. The severance tax remains today at the same level it was in 1983 as one of the lowest nationwide and the program remains too diminished to do much more than issue permits.

ODNR now has an inspection staff of approximately 50, just over half of its own professed need, while the overall staffing level is approximately 120. Despite this increase, the program struggles to meet its workload. For example, state laws in place by 2014 required ODNR to adopt some twenty new regulations to address specific hazards from fracking, but only one has been adopted (governing well-pad construction adopted in 2015.)⁹ The lack of rules means that, rather than regulating potentially hazardous facilities through permits based on specific rules establishing minimum safety standards, ODNR is authorizing them by simple written approvals issued with no public process based on its own in-house, unpublished standards. The oil and gas program has no public outreach program, almost never responds to public inquiries, and is extremely tardy in responding to public records requests filed by citizens. While the program collects occasional fines, it resolves its enforcement matters quietly in-house between it and the violator and has not asked the state attorney general to prosecute violations in many years; not surprisingly, it also does not publicly report any statistics on its enforcement efforts. But because there is no federal law governing oil and gas production and because Ohio’s local governments have been denied all relevant authority, there is no other agency anywhere other than ODNR to protect Ohioans’ most fundamental rights to health and safety from the hazards of fracking.

⁸ *Cleveland Plain Dealer*, May 12, 2012, “*Drilling Inspectors Needed: Ohio looks to hire as shale play spreads to more counties.*”

⁹ *Columbus Dispatch*, January 24, 2016, “*Ohio has yet to write rules for fracking industry.*”

THE REGULATION OF INJECTION WELLS

The regulation of injection wells in Ohio is a somewhat separate story because there is federal law and a U.S. EPA program involved. The end result, however, is little better. Injection wells were regulated in the federal Safe Drinking Water Act enacted in 1974 because they pose a threat of contamination to the drinking water aquifers above them. Injection wells are used to dispose of many liquid waste streams and were therefore divided into six different classes, with “Class II” wells being used exclusively to inject wastes from oil and natural gas production.

In the original federal program, US EPA adopted regulations establishing specific minimum requirements for each category of injection wells and required states to meet or exceed these safeguards if they wanted to have their own injection well regulatory program. The oil and gas industry was alarmed by the stringency of these rules and successfully lobbied Congress in 1980 to set up an entirely separate system for state Class II programs under Section 1425 of the Act by which states could ignore the federal requirements if their program was deemed by U.S. EPA to be “effective.” In the almost forty years since, US EPA has never adopted any regulations governing these Section 1425 programs. It did adopt a very vague, informal “guidance” document on this topic in 1983 – and has not amended a single word in it since.

Twenty-two states have Section 1425 programs including Ohio which received federal approval in 1983. While the other categories of injection wells are regulated by the better equipped Ohio EPA, the Ohio legislature placed the Class II well program in ODNR’s oil and gas program. The only thing necessary for ODNR to obtain federal approval was to sign a simple twelve-page Memorandum of Agreement with Ronald Reagan’s US EPA. This Memorandum is still in effect today with only minor changes. The Ohio legislature passed some very basic language granting ODNR authority to adopt regulations on injection wells in a single paragraph of a single statute, see ORC 1509.22(D), and ODNR adopted some very basic rules pursuant to this authority in the early 1980’s which also have seen only minor changes.

Ohio’s injection well program historically operated in obscurity, mostly because before fracking they were small operations located in isolated, rural areas. Since the advent of fracking, Ohio’s Class II injection wells expanded from 144 in 2011 to 239 today, the volume of wastewater injected grew in quantity by 240%, and many more communities daily witnessed a constant procession of tanker trucks hauling fracking wastewater, many with out-of-state license plates. Seventy-five percent of these wells are located in the thirty-two eastern Ohio counties declared by federal law to be Appalachian. Neither the federal nor the state Class II injection well program has been amended since the advent of fracking and this resulting expansion in quantity and toxicity of oilfield wastewaters.

During the 1980’s, ODNR had 21 staff members in a specific program dedicated to injection wells. After its staffing collapsed in the 1990’s, injection wells statewide were overseen by a dedicated staff of only three. While US EPA periodically audits the ODNR program, these audits have historically been cursory, uncritical and boilerplate. In fact, in comparing the two federal audits conducted in 2005 and 2009 of some dozen pages, the 2009 audit is a mere cut-and-paste from the 2005 audit with negligible changes in wording and

none at all in the conclusions. The paltry nature of this federal oversight was further made clear in 2010, when ODNR submitted to US EPA only a page and a half of information on its injection well activities for that year that neglected to even mention its minimal staffing level.

REGULATORY CAPTURE

Being under-resourced and under-performing is certainly not uncommon for environmental protection programs across the country and these factors alone are not determinative of the level of commitment and motivation within those agencies to serve the public. The public seldom has an opportunity for true insight into the real motivations of a bureaucracy, but just such a rare opportunity occurred in February, 2014, revealing the core thinking in ODNR about fracking when a public records request from the Ohio Sierra Club produced an astonishing document originating from the highest levels of ODNR. The request had been for documents describing the department's efforts to implement a program passed by the legislature in 2011 by House Bill 133 to allow fracking in state parks and forests.¹⁰

ODNR's response to this request included a copy of a 10-page "press strategy"¹¹ for how it planned to "encourage support" for the program by working with a list of "allied groups" composed of "supporters/participants of economic oil & gas development in Ohio" that included by name the Ohio Oil and Gas Association, Halliburton, the leading worldwide promoter of fracking, the industry front group America's Natural Gas Alliance and several other industry groups. An explicit role for these industry groups would be to help "minimize public concern" about their own drilling. The memo offered to have ODNR itself lead the effort, with coordination from Governor Kasich's office, and acknowledged that the proposed public relations effort "could blur public perception of ODNR's regulatory role in oil and gas" thus the plan's implementation required "precise messaging and coordination."

Equally revealing, ODNR's press strategy also listed by name many local, state and national environmental groups as "adversaries" and then reviled these groups as "eco-left pressure groups" and "zealous environmental activist opponents who are skilled propogandists" who will "react emotionally" and "attempt to create public panic about perceived health risks." These groups also "have proxies in the media who will slant news coverage against us" and will require "sustained legal countermeasures and crisis readiness" by the state. The appearance of this list as some kind of Nixonian hit list was further reinforced by its identifying by name two state legislators who had opposed the fracking in state parks program as additional "adversaries" to be countered.

The press strategy clearly showed whose side ODNR is on when it comes to fracking. Its own words demonstrate with startling clarity that it is eager to support the oil and gas industry's

¹⁰ See ORC 1509.70 to 1509.78.

¹¹ Copy available at: https://s3.amazonaws.com/s3.progressohio.org/images/Strategic_Drilling_Comms_Plan.pdf. Also see Columbus Dispatch, "State Made Plan to Promote Fracking While Regulating It," Feb. 15, 2014, at: <http://www.dispatch.com/content/stories/local/2014/02/14/newly-released-2012-memo-details-defense-plan-against-fracking-opponents.html>.

economic goals, will always downplay the risks of fracking, and will – at best - ignore anyone critical of fracking. The press strategy confirms the public’s greatest fear of government agencies that ODNR is a “captive regulator” that is controlled by the very industry it was originally intended to regulate.

UNIVERSAL HUMAN RIGHTS IN INTERNATIONAL LAW

The testimony provided in the Citizens Tribunals established facts on a wide range of serious problems caused by fracking related to environmental quality, health, access to information, participation in decision-making, and the compromised status of government agencies that are incapable of genuinely addressing public concerns. These problem areas are relevant to the standards for human rights adopted by the nations of the world during forums convened by the United Nations since its founding in 1946.

Below are a listing of the sources and nature of those universal human rights.

A. THE INTERNATIONAL BILL OF HUMAN RIGHTS

From the founding of the United Nations in 1946 through 1966, the United Nations adopted three different documents that collectively constitute the International Bill of Human Rights. These documents are listed below.

1) the Universal Declaration of Human Rights (UDHR). The UDHR was adopted by the United Nation's General Assembly on December 10, 1948. It consists of thirty articles that state individuals' rights and was designed to give content to the broad declaration of the United Nation's charter committing its member states to promote "respect for, and observance of, human rights and fundamental freedoms for all." The UDHR is mainly a statement of moral, rather than legal, obligations. However, the status of these rights was elevated in 1966 when the other two documents, the International Covenant on Civil and Political Rights (CCPR) and the International Covenant on Economic, Social and Cultural Rights (CESCR), were adopted by the United Nations to give a legal and enforceable status to most of the rights recognized in the Universal Declaration.

Among the rights recognized in the Universal Declaration relevant to fracking are:

- the right to life, liberty and security of person,
- the right to an effective judicial remedy,
- freedom from arbitrary interference with privacy, family or home, and
- the right to take part in the government of one's country.

2) the International Covenant on Civil and Political Rights (CCPR) was adopted in 1966 to define the specific human rights that had been generally stated in the Universal Declaration. It also commits the nations that are parties to it, which includes the United States, to respect the civil and political rights of individuals. Compliance by individual countries with the CCPR is monitored by the United Nation's Human Rights Committee.

Among the rights recognized in the CCPR relevant to fracking are:

- the right the self-determination, including pursuit of economic, social and cultural goals, to manage and dispose of one’s own resources, and the right not to be deprived of the means of subsistence,
- the right to an effective legal remedy for any violation of the rights recognized in the Covenant, without distinction of any kind, such as race, color, sex, language, religion, political or other opinion, national or social origin, property, birth or other status,
- the right to procedural fairness in law, in the form of rights to due process,
- the right of an inherent right to life, including an increase in life expectancy,

The U.S. Senate ratified the CCPR in 1992 giving it force of law and committing the United States to upholding these rights both domestically and to assist in their enforcement around the world.

3) the International Covenant on Economic, Social and Cultural Rights (CESCR) was also adopted in 1966 to specify the remaining human rights outlined in the Universal Declaration not addressed in the CCPR. Compliance with this Covenant is monitored by the U.N. Committee on Economic, Social and Cultural Rights. Among the rights recognized in the CESCR relevant to fracking are:

- the right to work “under just and favorable conditions,” including safe working conditions,
- the right to an adequate standard of living, including the “continuous improvement of living conditions,”
- the right to the highest attainable standard of physical and mental health, including access to safe and potable water and an adequate supply of safe food “free from adverse substances,” and healthy occupational and environmental conditions,

The United States signed the CESCR in 1979 but it has never been ratified by the Senate. Unlike the Covenant on Political and Civil Rights for which immediate compliance is required, nations signing this Covenant commit to the “principle of progressive realization” that they shall implement these broader rights as quickly as possible consistent with a nation’s resource constraints. This principle imposes both an obligation to work toward the realization of the rights declared in the CESCR and prohibits repressive measures which would impede those rights. Given the United States’ vast resources, there are no valid reasons why these rights are not realized now within our country.

These three documents are collectively referred to as the International Bill of Human Rights. These rights are considered the minimum legal and moral obligations that governments of any type owe to their people under all circumstances without exception. These human rights are recognized as superior to all other types of policy considerations, such as cost-benefit analysis or economic value. These human rights standards represent hard ethical boundaries outside of which certain behaviors are not morally permissible. The governments that have signed these instruments, as the US has done, have committed themselves to enacting these universal human rights standards into law and to being held accountable for them.

B. THE GUIDING PRINCIPLES ON BUSINESS AND HUMAN RIGHTS

Subsequent actions by the United Nations have helped clarify the importance of the International Bill of Human Rights and have even applied them in the context of human and environmental health. The International Bill of Human Rights was targeted at preventing “state actors,” i.e., national and regional governments, from violating human rights, especially the rights of less powerful groups within a national society. As multi-national corporate entities grew in power during the latter half of the Twentieth Century, it became clear that these “non-state actors” could be just as damaging to human rights as any oppressive government. In response to the challenges of such corporations, the United Nations’ Human Rights Council adopted an instrument containing thirty-one principles in 2011 titled the “United Nations Guiding Principles on Business and Human Rights” (“UNGPs”). The Guiding Principles provided the first global standard for preventing and addressing the risk of adverse impacts on human rights from business activity.

These principles were the culmination of decades of work at the U.N., starting with the formation of a Commission on Transnational Corporations that operated from 1973 to 1994. In 1988, a new Working Group on Transnational Corporations developed a proposal to impose the same duties to protect human rights on transnational companies as had been imposed on state actors in the International Bill of Rights, but this effort was blocked by strong business opposition and disagreements between developed and developing countries. Instead, the U.N. Commission on Human Rights established a Special Representative of the Secretary-General in 2005 to establish these new norms of global corporate behavior. Harvard Professor John Ruggie was appointed to this role. The final product sought to elaborate on the existing legal standards for business and states and integrate them into a coherent statement, rather than create new standards for international law. In 2014, the U.N. began work on developing a binding instrument making the Guiding Principles enforceable under international law; this effort is ongoing.

As stated in the Special Representative’s Final Report,¹² the Guiding Principles were built on “Three Pillars:”

1. that the State has a duty to protect against human rights abuses by third parties, including business enterprises,
2. that corporations have a responsibility to respect human rights, and
3. that victims need greater access to effective remedies, both judicial and non-judicial, from business-related abuses.

The thirty-one Guiding Principles elaborate on each of these three pillars. Of primary importance, the first principle acknowledges that:

“States must protect against human rights abuse within their territory and/or jurisdiction by third parties, including business enterprises. This requires taking appropriate steps to

¹² <https://business-humanrights.org/sites/default/files/media/documents/ruggie/ruggie-guiding-principles-21-mar-2011.pdf>

prevent, investigate, punish and redress such abuse through effective policies, legislation, regulations and adjudication.”

This principle means that governments breach their duty under international law when they fail to prevent or sanction corporate actors’ abuses. The main corporate responsibility recognized in the Guiding Principles is to respect internationally recognized human rights, which are understood, at a minimum, as those stated in the International Bill of Human Rights (Principle 12) and to that end, should carry out due diligence to avoid adverse human rights impacts (Principle 17).

C. HUMAN RIGHTS AND THE ENVIRONMENT: THE STOCKHOLM DECLARATION, THE RIO DECLARATION, AND THE AARHUS CONVENTION

In 1972, the world’s first global environmental conference was convened by the United Nations Conference on the Human Environment in Stockholm, Sweden. The Conference resulted in a declaration that was the first recognition of the right to a healthy environment as essential to the enjoyment of the basic human right of the right to life itself.

The Declaration adopted twenty-six principles to guide the international obligation of environmental protection starting with the principle that “Man has the fundamental right to freedom, equality and adequate conditions of life, in an environment of a quality that permits a life of dignity and well-being and he bears a solemn responsibility to protect and improve the environment for present and future generations.”

In 1992, the second global environmental conference was held in Rio de Janeiro, Brazil, with the purpose of converting the broad principles of the Stockholm Declaration into a specific statement of legal rights and obligations regarding the environment and sustainable development. The final approved Declaration contains twenty-seven principles of international environmental law. Principle 10 includes a strong commitment to public participation in environmental decisions, based on the principle that “environmental issues are best handled with the participation of all concerned citizens, at the relevant level.” Compliance with Principle 10 requires States to adopt legislation ensuring that everyone has access to relevant information on environmental matters and access to public participation in environmental decision-making.

Principle 10 rights were strengthened in 1998 with the adoption of the Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters, also referred to as the Aarhus Convention.¹³ The Convention focuses on the interactions between the public and public authorities during the governmental decision-making processes on local, national and international environmental matters. It establishes a “governance-by-disclosure” guarantee based on a new set of Three Pillars:

¹³ <http://www.unece.org/fileadmin/DAM/env/pp/documents/cep43e.pdf>

1. Access to Information: every citizen should have the right to a wide and easy access to environmental information.
2. Public Participation in Decision-Making: the public must be informed of all relevant projects and granted an opportunity to participate during the decision-making and legislative process.
3. Access to Justice: the public has the right to judicial or administrative remedies if a state actor fails to adhere to environmental law or the first two Pillars.

An Aarhus Convention Compliance Committee was established to insure compliance with these requirements. The Convention has been signed by some fifty countries, all in Europe and Central Asia, as well as by the European Union itself; the United States has not signed this Convention. The Convention remains highly significant to the work of the Citizens Tribunals because it demonstrates that international law has coalesced to the point where access to environmental information and an opportunity for public participation can be deemed as established human rights.

In summary, international law recognizes the moral necessity of the following basic human rights which may be impacted by fracking:

- The right to life, security of person and bodily integrity;
- The right to health;
- The right to a healthy, viable and supportive environment;
- The right to safe water;
- The rights to access to information and public participation in environmental decision making;
- The right to justice, equality and non-discrimination in environmental matters;
- The right to respect for private and family life;
- The right to property;
- The right to peacefully enjoy one's possessions;
- The right to a social and international order in which all human rights may be fully realized.

TESTIMONY PRESENTED TO THE OHIO CITIZENS' TRIBUNAL
ON THE
HUMAN RIGHTS IMPACTS OF FRACKING

The Ohio Citizens' Tribunal met twice during 2017 to take testimony from Ohioans directly impacted by fracking and from experts on issues involving the fracking industry in Ohio. The first session took testimony in Athens, Ohio, from thirteen individuals and two experts on May 13, 2017, and the second took testimony from an additional ten individuals and one expert in Youngstown, Ohio, on July 29, 2017.

The testimony was given in a public hearing before a panel of jurors familiar with environmental issues who had the right to cross-examine the individuals testifying to clarify and authenticate their testimony. The jurors in Athens were Lois Gibbs, Jack Wright, Reverend Kathryn Hawbaker and Nancy Pierce, while the jurors in Youngstown were Joseph Logan, Douglas Fowler and Lois Gibbs. Persons testifying submitted written testimony and their oral presentation at the Tribunal was transcribed and streamed live on the internet. After the jurors heard the testimony, they met in private to discuss the information obtained, assess its significance, and develop specific recommendations for action that should be pursued in Ohio to address the facts that had been established in the testimony.

This section of the Report will summarize the testimony presented to each Tribunal on the Universal Human Rights that have been affected by fracking operations in Ohio. The last section of this report will then present the juror's recommendations.

The testimony will be presented in two parts. Most of the testimony provided to the Tribunal addressed the direct physical impacts that local fracking operations have had on the quality of life of Ohio residents in their homes and communities. This testimony will be summarized below to show violations of the following Universal Human Rights:

- The right to life, security of person and bodily integrity;
- The right to health;
- The right to a healthy, viable and supportive environment;
- The right to safe water;
- The right to property;
- The right to peacefully enjoy one's possessions;
- The right to respect for private and family life.

The remaining testimony dealt with the difficulties encountered by persons in Ohio when seeking redress of these impacts through the permitting and enforcement programs implemented by the State of Ohio to control environmental pollution from the oil and gas industry and the lack of effective public participation and access to information regarding fracking provided to citizens

in Ohio. This testimony will also be summarized below to show violations of the following Universal Human Rights:

- The rights to access to information and public participation in environmental decision making;
- The right to justice, equality and non-discrimination in environmental matters;
- The right to a social and international order in which all human rights may be fully realized.

TESTIMONY ON HEALTH AND QUALITY OF LIFE IMPACTS VIOLATING HUMAN RIGHTS FROM FRACKING OPERATIONS IN OHIO

Several persons testifying submitted industry-independent scientific studies documenting the public health danger of fracking operations, including the risk from toxic chemicals involved in the fracking process. A particularly effective document placed into the record was the “The Compendium of Scientific, Medical and Media Findings Demonstrating Risks and Harms of Fracking,” published by the Health Professionals of New York and the Physicians for Social Responsibility,¹⁴ (“the Compendium”) the fourth edition of which was published in November, 2016, and consists of over two hundred pages summarizing government reports and peer-reviewed articles from scientific and medical journals, including published case reports. This Compendium is the most comprehensive existent summary on technical studies related to fracking and, as a voluntary effort by health professionals without industry ties, has the benefit of being independent and impartial. The Compendium has already been updated four times due to a rapid acceleration in research on fracking’s impacts on humans and the environment in recent years. The number of peer-reviewed publications on fracking’s impacts doubled between 2011 and 2012 and then doubled again between 2012 to 2013, while more studies were published in 2014 than in 2009, 2010, 2011 and 2012 combined.

This emerging body of science allowed the Compendium’s authors to conclude that:

“Earlier scientific predictions and anecdotal evidence are now bolstered by empirical data, confirming that the public health risks from unconventional gas and oil extraction are real, the range of adverse environmental impacts wide, and the negative economic consequences considerable. Our examination of the peer reviewed medical and public health literature uncovered no evidence that fracking can be practiced in a manner that does not threaten human health.” (at page 6)

The Compendium summarized the state of the health risk data as follows:

“. . . the evidence to date indicates that fracking operations pose severe threats to health, both from water contamination and from air pollution. In the United States, more than two billion gallons of fluid are injected daily under high pressure into the earth with the

¹⁴ Available at: <http://concernedhealthny.org/compendium/>

purpose of enabling oil and gas extraction via fracking or, after the fracking is finished, to flush the extracted wastewater down any of the 187,570 disposal wells across the country that accept oil and gas waste. All of those two billion daily gallons of fluid is toxic, and it all passes through our nation's groundwater aquifers on its way to the deep geological strata below where it demonstrably raises the risk for earthquakes. In the air around drilling and fracking operations and their attendant infrastructure, researchers have measured strikingly high levels of toxic pollutants, including the potent carcinogen benzene and the chemical precursors of ground-level ozone (smog). In some cases, concentrations of fracking-related air pollutants in communities where people live and work exceed federal safety standards. Research shows that air emissions from fracking can drift and pollute the air hundreds of miles downwind." (at page 7)

The Compendium summarizes this emerging science as establishing eleven trends on the developing understanding of health and environmental risks from fracking activities, specifically:

- 1) Growing evidence shows that regulations are simply not capable of preventing harm;
- 2) Fracking threatens drinking water;
- 3) Drilling and fracking emissions contribute to toxic air pollution and smog (ground level ozone) at levels known to have health impacts;
- 4) Public health problems associated with drilling and fracking, including reproductive impacts and occupational health and safety problems, are increasingly well documented;
- 5) Natural gas is a bigger threat to the climate than previously believed;
- 6) Earthquakes are a consequence of drilling and fracking-related activities in many locations;
- 7) Fracking infrastructure (such as pipeline compressor stations, flare stacks at drill sites, and underground gas storage) poses serious potential exposure risks to those living near it;
- 8) Drilling and fracking activities can bring naturally occurring radioactive materials to the surface;
- 9) The economic instabilities of fracking further exacerbate public health risks;
- 10) Fracking raises issues of environmental justice as fracking operations are disproportionately sited in non-white and low-income areas; and
- 11) Health care professionals are increasingly calling for bans or moratoria until the full range of potential health hazards from fracking are understood.

The Compendium also found that the published science is sufficient to support the following conclusion contained in the *American Journal of Public Health* that:

“Mounting empirical evidence shows harm to the environment and to human health ... and we have no idea what the long-term effects might be. . . Ignoring the body of evidence, to us, is not a viable option anymore.¹⁵

The Compendium also acknowledges the close correlation of its own findings with those of another authoritative source of scientific evidence previously issued on December 17, 2014, by the New York State Department of Health in its review of the health impacts of fracking.¹⁶ This 186-page document served as the foundation for a statewide ban on high-volume hydraulic fracking adopted by the State of New York. This report concluded that the science surrounding fracking activity was then just beginning to emerge, but that the existing studies “raise substantial questions about whether the risks of HVHF (high volume hydraulic fracturing) activities are sufficiently understood so that they can be adequately managed.” Based on this finding, the report concluded that fracking should not proceed in New York State until the risks and the effectiveness of current mitigation practices were reliably understood. The recent updates to the Compendium demonstrate that the science that has emerged since the New York report in 2014 has reinforced the genuine nature of these risks and the inadequacy of the regulatory approach in managing them.¹⁷

The human health and environmental threats caused by fracking set forth in the studies listed in the Compendium were supported by the testimony to the Citizens’ Tribunal of the Ohioans living in proximity to fracking operations.

- Felicia Mettler, who resides in the Village of Coolville in Athens County, testified to the problems she has witnessed at her “In-laws” home located just 1,800 feet from an injection disposal well. Her in-laws’ serenity of living in the country has been “shattered” by vibrations so strong that the water in their birdbath is constantly rippling. Also, loud noises from the injection well facility at times force them to either retreat indoors or leave their home altogether. Her mother-in-law now has to take additional blood pressure medication due to the stress of living in these conditions. Another neighbor living a quarter mile from the injection well receives odors so strong that it causes burning eyes so severe that they are forced indoors to avoid it.

The local region is heavily impacted by truck traffic to the site, as her family once counted 108 trucks entering it during a twenty-four hour period, or one every 13 minutes. Her own family no longer swims or fishes in the local river because of fear of contamination due to the facility being only 150 feet from it, the safety of which is unknown because neither state nor federal law requires any water or air monitoring around the facility. The local water company that supplies Felicia’s family drinking water has notified the entire community that it could not protect

¹⁵ Finkel, M., L. & Law, A. (2016). *The rush to drill for natural gas: a five-year update*. *American Journal of Public Health*, 106(10). doi: 10.2105/AJPH.2016.303398

¹⁶ https://www.health.ny.gov/press/reports/docs/high_volume_hydraulic_fracturing.pdf

¹⁷ No Ohio governmental authority has undertaken any health impact review of fracking operations in this state, a result inconsistent with Ohio state government’s support for the rapid development of fracking.

its water from contamination from fracking chemicals because it does not know what chemicals are in the injected waste and therefore does not know what to test for to detect any contamination. Athens County where Felicia's family resides now has eight permitted injection wells.

- Scott Whitacre, from Barnesville in Belmont County, resides close to several fracked production wells and pipeline compressor stations that have caused he and his neighbors “splitting headaches, nervous system tremors, respiratory issues and insomnia.” His community also suffers from mental trauma after a tanker truck hauling fracking wastewater caused a spill into the Barnesville reservoir which may have caused exposure to radioactive wastes. He cited studies that the well casings used to isolate the wells from aquifers have a significant rate of failure over time, thus raising a danger of eventual water contamination that can destroy a home's economic value. He is particularly concerned about state policy changes adopted in 2013 which put the industry in charge of their own testing and record-keeping for radioactivity in their waste and that many of the testing procedures approved for use in Ohio are flawed.
- Greg Pace of Columbus in Franklin County is also concerned about the problem of radioactivity in fracking wastewater, especially since the Ohio legislature deregulated the disposal of shale drill cuttings so they can be routinely dumped into landfills, including landfills in Columbus. He notes that the testing protocols used to test for radium contamination was flawed as shown by university studies. Columbus also has thirteen “legacy” Class II injection wells north of the city in its source water protection area, most of which were old production wells in dilapidated facilities that were converted to injection wells. He has also met with rural Ohio residents who reside close to compressor stations on natural gas pipelines who complain of intense odors from volatile organic compounds that are so bad that their even their dogs will no longer go outside.
- Jill Antares Hunkler, of Somerset Township in Belmont County resides just downhill from a pipeline compressor station with foul smelling air emissions that cause nose, eye and throat irritation as well as headaches. These symptoms have worsened over time to include nausea, vertigo, rashes, mental confusion and disorientation, numbness and body aches and pains. Her reactions to these air emissions are consistent with what she has learned from other families residing close to pipeline compressor stations. Earthworks, a nationwide non-profit environmental organization, examined the compressor station with optical gas imaging technology (specifically, a Forward Looking Infrared camera) that clearly showed gray plumes of contaminants above the facility's stacks that moved across the facility fence lines as well as emissions venting from the site's storage tanks. Earthworks' experts declared the site to have some of the most intense emissions they had ever filmed and that they themselves smelled strong

hydrocarbon odors that also caused them headaches. Jill has concluded that no state or federal agency is routinely overseeing these operations and their emissions, which have not monitoring for toxic chemicals.

After a year of complaints from area residents, Ohio EPA inspected the site in May, 2016, and found that a valve was malfunctioning which caused high releases of volatile organic compounds in violation of the company's air permit; the type of chemicals released are known to cause the irritations, breathing problems and nervous conditions that Jill had experienced. Although Ohio EPA formally found that the compressor station's owner was in violation of its permit, six months later there had been no improvements as Ohio EPA could report only to Jill that "we currently are reviewing the response by the company and are working with (owner) MarkWest to ensure compliance with their permit terms and conditions." Because the emissions continued unabated, the Hunklers were forced to vacate their home.

In addition to these problems with the compressor station, Jill also has lived close to fracked production wells and has experienced headaches, asthma-like symptoms, rashes and insomnia. She believes that the fracking industry has destroyed the former peaceful living conditions in her preferred rural environment due to adverse health effects, deforestation and habitat destruction, and that this experience is being repeated throughout rural southeastern Ohio. She is now active in opposing Gulfport's efforts to lease land from the Village of Barnesville that would allow fracking production wells to be located within 500 feet of the local drinking water reservoir in the Slope Creek watershed.

- Elaine Tanner of Mansfield testified to her concerns about the extensive environmental harm caused by the construction and operation of massive pipelines being built across Ohio to transport fracked gas. Building pipelines involves extensive truck traffic, twenty-four-hour a day construction, and heavy dust clouds. She also reports that pipeline companies have acquired a track record of misrepresenting their impacts to families whose land they cross and of breaking their agreements.

She testified at length about the Rover Pipeline that crosses Pennsylvania, West Virginia, Ohio (close to her home in Mansfield) and Michigan with 713 miles of pipeline up to 42 inches in diameter. It is owned by Energy Transfer Partners that also owns the more famous Dakota Access Pipeline. The Rover pipeline had 14 spills of drilling mud during its first few month of construction, including a massive spill of over 2 million gallons that virtually destroyed a wetland in Stark County in April, 2017. This spill was preceded by a three-week period where the pipeline drill had lost all circulation but the company continued to drill regardless until the wetland was finally destroyed. The drilling mud is a very heavy mixture

of a bentonite slurry mixed with chemicals to “slicken” it so it flows more easily; the only way to remove it is to vacuum it up in a very destructive process. She is also concerned about excessive levels of methane emission from natural gas infrastructure that is a contributor to greenhouse gas induced climate change.

- John Howard of Athens County testified about the erosion of the American tradition dating to the Revolutionary War period recognizing natural, inalienable rights. He notes that these historic rights are now recognized universally in the United Nation’s 1948 Declaration of Universal Human Rights but that environmental changes since 1948, now culminating with fracking, have become obvious threats to life, liberty and security of persons. Regulation of fossil fuels will be necessary to address these threats, but such regulatory policies are now unduly influenced by those who profit from the activity being regulated, a clear failure of democracy itself. To protect the public’s rights to clean air, water and soil from the dangerous toxins used in fracking, the currently dominant power of corporations must be balanced through increasing the public’s rights to adopt stronger local laws, including the power to prohibit harmful activities such as fracking.
- Dick McGinn of Athens County is concerned with the human rights and environmental justice violations caused by fracking and the dumping of toxic fracking wastes in the poorest region of the state, Appalachian Ohio, and the inability of the people there to decide for themselves whether to allow fracking waste dumping or not. He believes state and federal officials as increasingly unable to comprehend the impacts they are allowing on these basic human rights and the resulting harm to democracy itself. He sees the universally recognized right to public participation as wholly lacking in fracking and fossil fuel policy as, on the one hand, the public unwillingly subsidizes fossil fuel production and clean-ups through tax money and has no say in accepting the risks of millions of barrels of unmonitored toxic waste at injection wells while, on the other hand, the state and industry obstructs the public obtaining knowledge of the underlying facts, such as the composition of fracking chemicals. He notes that the U.N. has recognized that indigenous peoples have a right to refuse harmful industrial projects in Article 19 of the 2007 Declaration on the Rights of Indigenous Peoples, but this right of informed consent should be extended to all people everywhere.
- Heather Cantino of Athens testified at length regarding the fracking industry’s contributions to climate change. Among the most important factors supporting climate stability are the protection of intact, mature forests that provide carbon sequestration and keeping fossil fuels in the ground. The most recent report of the authoritative Intergovernmental Panel on Climate Change found that at least 67% of the remaining fossil fuels, including fracked gas, must stay in the ground to

avoid catastrophic climate change; some scientists place the appropriate percentage at 80%. Further, 23% of total U.S. climate emissions are the result of burning fossil fuels from public lands, where many of the most intact forests remain, and from public waters.

This factor makes the federal government's current efforts to allow fracking into Ohio's only National Forest, the Wayne, highly controversial. Even though the Wayne's most recent Forest Plan did not consider fracking, the Bureau of Land Management is proceeding to lease natural gas reserves under the Wayne without even preparing an Environmental Impact Statement as required by the National Environmental Policy Act of 1969, nor even a site-specific Environmental Assessment. Instead, BLM made a Finding of No Significant Impact based on minimal information and multiple arbitrary findings, including an underestimation of methane's potency as a greenhouse gas, ignoring all the social costs of carbon, and failing to consider the cumulative and indirect impacts of leasing the forest property for fracking, including the obvious issues of water withdrawals, deforestation, wildlife habitat impacts, and impacts on recreation and tourism.

- Cathy Froehlich-Burkhart is from Belmont County and became acquainted with fracking when her family's farm for 170 years was forcibly leased to Gulfport Energy Corporation by ODNR in November, 2013, through the process called forced "unitization." With hydraulic fracturing now occurring just 2,000 feet from the front porch, the family is torn over staying on their ancestral land or moving away to avoid its health risks, including an 80-decibel level of industrial noise. She believes that the unfair, highly complex unitization process violates her rights to life and liberty, to possessing property, and to safety. She worries for her neighbors, many of whom are elderly with no ability to access to computers, who are open to exploitation by energy companies.
- Annie Burke of Athens County testified about the long-standing problems of the Ginsburg injection well in her area that has operated for some 30 years in repeated violation of state laws. It is an old and poorly maintained well that was converted from an oil and gas production well. It generates significant odors and ODNR records show it has had a history of violations, has been non-operational for months and long past the time that ODNR regulations require it to be plugged, has been subject to repeated mechanical failures and has a history of leaking that causes soil contamination – which ODNR has never required to be tested. Motorists passing close to the well report suffering nausea, headaches, and burning eyes. An ODNR inspection recently gave the well's owner a citation because the on-site dumpster used to dispose of used brine filters has large holes allowing the filter residues, which often include radioactivity that has been concentrated to high levels during the filtration process, to contaminate the

ground. While the report ordered the contaminated soil to be removed, there has been no report for months of this clean-up occurring.

- Christine Hughes of Athens runs a restaurant featuring locally grown food and is concerned about the safety of food grown close to fracking operations and the reduction of viable, uncontaminated farmland caused by fracking. The local food movement of Athens involves 160 businesses, including farms, which require chemical-free agricultural practices that in turn require uncontaminated air and water. This movement is now vulnerable to fracking as farms have been contaminated by fracking accidents or emissions and their products have been placed into the food system without testing.

Ohio has over 700 certified organic farms with 57,000 acres of certified organic land, but 103 of these farms are located within three miles of just injection wells alone. If testing on these farms reveals contamination, they can lose their organic certification and be removed from the market, causing price increases for the community at large and severe economic loss for the farm's owners. Fracking also affects these farms through promoting water scarcity and water price inflation due to the massive amounts of water used in fracking which is permanently removed from the hydrologic cycle when it is injected. Also, ground level ozone created by fracking operations is very harmful to plants while their noise and odors can affect cows and their milk production. Christine also reports that farmers' desires to remain on their family farms are being diminished when their lives are convulsed by these industrial scale operations. Because of this myriad of impacts, fracking greatly destabilizes the farming economy.

- Barry Booth lives in Carroll County which is one of the leading counties in Ohio with the number of permitted fracking wells. He became concerned about fracking four years ago when he and his wife were overtaken by a gas smell so intense that it knocked them to the floor, to be followed by vomiting, burning eyes and disrupted breathing. The local fire department found a high gas level in his house and reported smelling gas while travelling there. A call to Ohio EPA only resulted in their saying the cause was their gas furnace which was not running at the time. He later learned that the local 911 emergency line had received 117 calls about the strong smell of gas. After their local state legislator intervened with Ohio EPA, its employees arrived without any monitoring equipment and merely sent a follow-up letter expressing regret about the odor they had encountered, with no information on the volatile gasses to which he and his wife had been exposed.
- Maria Montanez from Youngstown got active on the dangers of fracking on her right to clean water in early 2013 when she acted to prevent trucks carrying fracking equipment from entering drill sites located in the drinking water source

protection area of Meander Reservoir, the water source for over 400,000 people. ODNR reports revealed a four-foot split in the well casing of a well in this area and conflicting information about the well's integrity.

- Tom Cvetkovich, also from Youngstown, testified about the fracking industry's impact on several members of his family. His 94-year old uncle lives beside a truck cleaning station serving fracking trucks which destroyed his quality of life. The site's equipment caused such intense noise and vibration, mostly late at night, that local police intervened numerous times and fined the company for disturbing the peace. The problems continued, however, as the company became more effective at evading police monitoring. Mr. Cvetkovich himself lives three miles from an injection wells which has caused a dozen earthquakes, including one 4.0 on the Richter Scale that felt like a truck had hit his house and caused its foundation to crack.
- Reverend Monica Beasley Martin, also from the Youngstown area, is the founder of Defenders of the Earth Outreach Mission that takes a faith-based approach to environmental protection. The Mission's work is particularly concerned about achieving the human right to clean drinking water and sanitation recognized by the U.N. General Assembly in 2010, and she believes this right is being violated by the oil and gas industry's use of chemical-dependent fracking and our government's failure to protect our water supplies. She cited a list of 21,800 families and individuals harmed by fracking nationwide as recorded by the Pennsylvania Alliance for Clean Water and Air.¹⁸

Reverend Martin shared the story of Jamie Frederick, a former resident of Coitsville Township in Mahoning County, on the Ohio-Pennsylvania border that has been the scene of endless convoys of trucks and drilling equipment associated with fracking and fracking wastewater disposal. Jamie lived beside a fracking production well during its drilling which she describes as causing unbelievable levels of noise comparable to an airport runway, constant explosions and vibration that prevented sleep for three days, and the building of gas storage and fracking wastewater tanks outside her bedroom window. The well has had a blow-out, a chemical spill and a tear in a waste pit liner which she believes destroyed the property value of her home. Jamie experienced vomiting and intense abdominal pain daily and ultimately had her gallbladder removed. She also suffered from serious skin infections that required multiple surgeries and developed tremors in her hands from neurological damage.

The Reverend obtains her drinking water from the Meander Reservoir where four fracking wells are operating within its drinking water source protection area;

¹⁸ See <https://pennsylvaniaallianceforcleanwaterandair.wordpress.com/>

customers of the Meander water have been notified that the levels of trihalomethanes in that supply have more than doubled from 40 parts per billion to 89. Local ponds and wetlands have also been impacted by a variety of other fracking activities, causing animal and fish deaths.

- Diana Shaheen is also from Youngstown and has experienced numerous earthquakes associated from fracking starting in September, 2011. She also described the feeling of the earthquakes as a truck hitting her house. She experienced the earthquake that hit 4.0 on the Richter Scale on December 31, 2011, that led to state to temporarily close a local injection well. She remains concerned about the impact of fracking chemicals on oil and gas workers, schools, organic farms, livestock, and on causing cancers and endocrine disruption.
- Michele Garmin resides in Vienna in Trumbull County, just 200 feet from an injection disposal well for fracking waste. When Michele first learned that Kleese Development Associates was seeking its injection well permit from ODNR, she first sought to use her township's zoning laws to move the well from this residential, non-industrial zoned area, only to learn that ODNR could simply ignore local zoning requirements. While the permit was pending, another nearby Kleese site had a spill that killed many animals and alarmed residents about the safety of their drinking water. She hoped this tragedy would prevent Kleese from receiving a new permit, but ODNR quickly granted it nonetheless.

The new facility constantly disrupts her family's enjoyment of their home, first by the truck traffic during construction that stopped all travel on her street, so they were unable to even use their own driveway. Once active injection began, the number of trucks only increased, with most arriving on weekends, holidays, and between 5:00 PM and 5:00 AM. She is particularly concerned about air quality as she smells foul odors from the injection well property and about the fact that her local township safety forces are completely unprepared to respond to any emergency at the site. The site's overflow alarm recently sounded during waste disposal which was followed by a drilling rig returning to the site; she believes the company replaced a failed well casing intended to protect drinking water from contamination but received no answer from the company or ODNR about what had happened on site. She concluded her testimony by urging the need for local control over these sites and to restore government agencies at all levels to their originally intended purpose of protecting citizens.

- Dr. Raymond Beiersdorfer of Mahoning County testified as both an expert and an individual witness about earthquakes, the resulting violations of the right to safe housing occurring in this area due to fracking, and bias in the academic community of which he is a part toward suppressing information on the risks of fracking. He is a professor in geology at Youngstown State University and he and

his wife, who is also a geology instructor there, have encountered a severe backlash from university officials as part of an effort to intimidate them from speaking out about the impacts of fracking, including fracking-induced earthquakes. He notes that Ohio had very limited earthquakes since 1776 but since the advent of fracking in 2011, five Ohio counties that had previously been without earthquakes suffered over 1,100 positive magnitude earthquakes, all of which were close to fracking operations. He states that ODNR, which routinely posts information on earthquake episodes in Ohio on its website, has unaccountably stopped doing so in several fracking-heavy counties.

Dr. Beiersdorfer also recounts that ODNR allows injection wells to increase their injection well pressure routinely even when localized earthquakes have occurred. He testified at length about the history of the Northstar 1 injection well in Mahoning County that was allowed to inject over 20 million gallons of wastewater at increasingly higher injection pressure permitted by ODNR even after earthquakes began to frequently occur. ODNR routinely denied for eight months that the increasingly severe earthquakes were caused by the Northstar 1 well until it was shut down after the notorious 4.0 earthquake on December 31, 2011. Although ODNR subsequently modified its regulations to address earthquake potential at fracking sites, these rules have not been implemented – Dr. Beiersdorfer gives many examples of this failure - and the rules have serious deficiencies that could be easily addressed. The Northstar well has resumed operations, but only because ODNR failed to enforce its own rule requiring well plugging within 60 days of discontinuance of operations.

He also testified that an injection well in neighboring Trumbull County triggered 108 earthquakes on two separate faults in 2014. It too was shut down but has not been plugged. Public information about both wells on ODNR's web-site has simply been removed, while an ODNR study that fracking production wells also have caused earthquakes in Ohio has not been made publicly available and can only be obtained through a formal public records request.

- Mary Greer, a member of Concerned Citizens Ohio, has amassed extensive technical documentation on how fracking violates human rights, especially through: its using over one thousand chemicals, many with profound toxic impacts (citing the Yale Univ. School of Public Health, *Journal of Exposure Science and Environmental Epidemiology*, Jan. 6, 2017); the high rate of failure of well casings in fracking wells; surface spills; radiological contamination of waste water from deep injection wells; earthquakes; and the wholly inadequate setbacks from citizens required by the state for fracking operations for both the explosion hazard of pipelines and air pollution. On this issue of setbacks, injection wells have been shown to cause air pollution for two miles from the wellhead, but the setback required of such a well to a residence is just 150 feet.

Mary has presented this information to many local government authorities but has been routinely told that they can do nothing as local governments have been denied all their usual powers to protect public health when it comes to fracking in Ohio by the state legislature, which has given exclusive authority over these issues to ODNR.

- Mary Booth, also of heavily-fracked Carroll County, is very concerned about the chemicals released from compressor stations used to push fracked natural gas through pipelines. She notes that health data from Ohio EPA is that 2.9 out of every 10,000-people living by a well-pad will develop cancer and that Carroll County has 487 such well-pads. An air sample at her home which is adjacent to a wellsite and 1.5 miles from a compressor station found 32 different chemicals, including chemicals associated with cancer. She and several of her neighbors have been diagnosed with cancer since fracking came to her area. She notes that ODNR rarely conducts inspections of drilling activity and that her local emergency response agency is dependent on the industry itself for critical safety information. She notes that she has seen local property values drop for property close to a well due to the unending truck traffic and pollution that destroys the quality of living there.
- Haley Schurman of McDonald, Ohio, testified as a proxy for residents of the Westwood Lake Park in Wethersfield Township of Trumbull County where a newly drilled well has brought never-ending noise 24 hours a day as well as bright light shining directly into her trailer park. After the well drilling was completed, she experienced an intense smell from the fracking process which was followed by another bad chemical stench and even more noise when the site lit its flare; everyone in her trailer park community now has a metallic taste in their mouths. This sequence was then repeated when a second well was drilled on this well-pad; the well-pad is planned to have an additional six wells. An older resident has had an untreatable skin condition for 18 months.
- John Williams lives in North Jackson in Mahoning County by the Meander Reservoir drinking water source protection area. After a horizontal fracking well-pad was built in this area, he called the Ohio EPA staff that oversees the protection area only to be told they had received no advance warning of the well-pad coming to this sensitive location. The first well developed a large crack in its intermediate casing which was simply patched and cemented over; it is now in operation within the protection area, along with five other fracking pads. The frequent earthquakes in the Meander area induced by the fracking wells are a constant source of concern for the safety of the source water area from these operations.

- Charles Marinelli lives beside a fracking well in Mahoning County that appears to have severely affected his home's drinking water well. Before the drilling, his well had a pH of 8, was soft and clear and had a low iron content; afterwards, it had an acidic pH of 6, and was very hard as the iron content increased from 210 to 147,000 ugm. His water filters were contaminated by a variety of contaminants, including water as red and thick as tomato sauce for months at a time despite expensive treatment. His water now also contains oily droplets. The well's static water level increased by twenty feet from 47 to 27 feet and he had to replace the water pump at significant cost.
- Sandra Keevert lives in Belmont County and spends much of her time in neighboring Monroe County where a major fire destroyed a fracking pad on June 28, 2014, after a hydraulic line broke and sprayed fracking fluid over the hot well pad. She testified at length about how the tiny local fire department was overwhelmed by the accident and was also interfered with by the drilling company. One of the main problems the fire department encountered was that there was no information on the chemicals involved because the trailer where the data was stored was on fire; it ultimately took five days for emergency responders to get a full list of the chemicals involved. The fire consumed 9,000 gallons of diesel fuel and 250 gallons of hydrochloric acid. A spill of toxic chemicals into an adjoining creek killed over 70,000 fish and other animals.

A second well-pad fire just six months later in the same area caused twenty people to be evacuated followed by a similar lack of basic information on what had been released into the environment. Monroe County has had no history of earthquakes until recently with three earthquakes occurring just days apart in December, 2016.

Conclusion: The jurors found that that this testimony establishes violations by the fracking industry and by the federal and Ohio state government of the following Human Rights recognized in international law:

1. The right to life, security of person and bodily integrity;
2. The right to health;
3. The right to a healthy, viable and supportive environment;
4. The right to safe water;
5. The right to respect for private and family life;
6. The right to property;
7. The right to peacefully enjoy one's possessions.

TESTIMONY ON PUBLIC PARTICIPATION RIGHTS AND THE VIOLATION OF HUMAN RIGHTS FROM FRACKING OPERATIONS IN OHIO

As discussed previously, international human rights laws recognize the following human rights for all inhabitants of Earth:

1. The rights to access to information and public participation in environmental decision making;
2. The right to justice, equality and non-discrimination in environmental matters;
3. The right to a social and international order in which all human rights may be fully realized.

The studies included in the “Compendium of Scientific, Medical and Media Findings Demonstrating Risks and Harms of Fracking” also documents a persistent and growing secrecy in the regulation of the fracking industry and a pronounced failure of government agencies to work transparently to disclose the risks of fracking and act on the input received from affected citizens on the permitting and oversight of these operations. These problems are national in scope. In this regard, the Compendium provides this overview, on page 7:

“Despite this emerging body of knowledge [on the health risks of fracking], industry secrecy and government inaction continue to thwart scientific inquiry, leaving many potential problems — especially cumulative, long-term risks — unidentified, unmonitored, and largely unexplored. This problem is compounded by non-disclosure agreements, sealed court records, and legal settlements that prevent families and their doctors from discussing injuries and illness. As a result, no quantitative and comprehensive inventory of human hazards yet exists. The long-entrenched problem of secrecy shows no sign of resolving. The identity of chemicals used in fracking fluids remains proprietary and lies beyond the reach of federal right-to-know legislation that govern other industries. The nation’s largest public database on chemicals used in fracking operations, FracFocus, operates on a voluntary basis, and, while 23 states have adopted it to serve as a de facto chemical disclosure registry, its data has, over time, become increasingly less, rather than more, comprehensive and transparent. As documented in a 2016 study by a Harvard University team, rates of withheld information and claims of trade secrecy have increased since Fracfocus was first launched in 2011.”

Testimony provided at the Ohio Citizens Tribunal demonstrates that these concerns over public access to information is certainly a problem in Ohio. Greatly aggravating this problem is the consensus position of the people testifying that Ohio’s regulator of the oil and gas industry, the Ohio Department of Natural Resources and its oil and gas program, acts as a dedicated ally of the fracking industry and is habitually dismissive of citizen concerns. A frequently repeated theme at the Tribunal was how ODNR acts as a “captured regulator” controlled by the very industry it is supposed to oversee and acts first and foremost as a buffer to shield the industry from the public rather than serve as an impartial authority concerned with public needs.

The State of Ohio’s failure to provide effective access to information and meaningful public participation to persons affected by fracking was supported by the following testimony:

- Roxanne Groff, a resident of Athens, Ohio, current Bern Township trustee and former county commissioner for Athens County, has been concerned about the injection wells disposing of fracking wastewater in her county, much of which comes from out of state. She testified flatly that the chief of ODNR's oil and gas program promotes the oil and gas industry with no effective legislative oversight. Most of her testimony addressed how Ohio law, as administered by the chief, fails to allow for meaningful public participation in the permitting of injection wells, especially when rural communities are affected, calling the system "flawed, abusive, and dismissive, and they violate the public trust." She notes that the state is responsible for printing a public notice of each permit application "in a newspaper of general circulation," but that many rural areas do not have one, so this notice seldom becomes known to the affected public. She also notes that the chief has discretion to hold a public hearing before making his permitting decision but usually does not hold one. At one event convened by ODNR amorphously described as an "information meeting," the public's participation was diluted by not allowing questions and answers in open session where citizens could learn from each other's comments and the agency's answers; instead the public was left to mill around looking at posters without any idea how to express their concerns or have their questions addressed. ODNR also arranged for excessive law enforcement presence at this event, including guard dogs, that participants considered an effort at intimidation. Ms. Groff also expressed concern about the lack of accessibility to information on fracking on ODNR's website which requires specialized software, is archaic and arduous to learn, and is extremely difficult to navigate.

These problems are not limited to state government alone but were largely repeated when the federal Bureau of Land Management (BLM), part of the U.S. Department of the Interior, considered the question of allowing fracking in Ohio's Wayne National Forest under the National Environmental Policy Act (NEPA). Only a single meeting was held at each phase of the process which led to many people unable to make the lengthy trip involved while opportunities to have questions addressed by those able to attend were limited. BLM quickly circumvented the NEPA requirements for public participation by simply declaring that fracking the national forest would have no significant adverse environmental effect, despite thousands of public comments urging a comprehensive assessment of fracking's potential impacts through an environmental impact statement. BLM's "no impact" decision was based on a minimal number of technical papers, mostly prepared by BLM's own employees, while it ignored scores of better-referenced documents submitted by the public without comment.

- Bernhard Debatin is a professor of journalism at Ohio University in Athens who has sought information about fracking operations and injection wells from ODNR. His efforts led him to conclude that "ODNR does not like to talk to

citizens, does not respond to letters, does not provide public hearings, and makes it hard to find specific information on their website.” His efforts began in March, 2015, after ODNR permitted a third injection well at the K&H facility near Torch, making it one of the largest injection sites in Ohio. There was no public hearing, despite 242 letters from area residents, many of which requested such a hearing. ODNR publicly stated that no hearing was held because it had answered all the questions presented on its website, which Professor Debatin considered a clearly false statement as only minimal information was supplied on-line (and for only a short time) with most questions unanswered. ODNR did not even provide the basic courtesy of acknowledging receipt of the several highly detailed letters the Professor sent them. He notes that commenting is already very difficult as ODNR provides only 14 days for comments on the highly technical issues that fracking often presents. He soon found himself in agreement with a 2014 report¹⁹ from Ohio Citizen Action that found a correlation between ODNR’s regulatory failure and a “revolving door between agency and industry” as well as ODNR’s “disdain and disrespect for public inquiries and requests.” He concluded his testimony by pointing out ODNR’s built-in conflict of interest that it receives a fee on all the wastewater it authorizes to be injected to fund the agency.

- Felicia Mettler, who resides in the Village of Coolville in Athens County near multiple injection wells, testified to the frustration of citizens interacting with ODNR to understand local fracking operations and the state’s permitting process. Because she has not subscribed to the one newspaper where ODNR’s public notice of these wells was published, she had no idea of the new disposal wells until after they were permitted. Moreover, the notice fails to convey the potential gravity of the injection wells and she notes that the public has only 15 days to prepare public comments, which is clearly inadequate. She testified that trying to use the ODNR website for public information is “nearly impossible” as it requires training and specialized software while the information is often posted far later than the weekly update that ODNR claims it provides. She clarified during cross-examination that if a person is without a computer or is not proficient in English, it would be all but impossible to obtain any information from ODNR on fracking.
- Dr. Julie Weatherington-Rice is a professional geologist and soil scientist who has spent most of her professional life protecting public water supplies from contamination. Her expert testimony stated that because oil and gas operations do not report the chemicals they use to emergency responders, Ohio EPA, or public water suppliers, it is almost impossible to plan for emergencies or to respond appropriately when accidental releases occur. She traced the origin of this problem to the Ohio legislature giving oil and gas chemicals special treatment under Ohio’s trade secret act and their own separate regulations that has them

¹⁹ Available at: <http://ohiocitizen.org/wp-content/uploads/2014/12/Citizen-audit-12-12.pdf>

report their safety data only to ODNR to the exclusion of the emergency response authorities that every other industry in Ohio uses.

The hazard inherent in this system was demonstrated in June, 2014, when 14 different fire departments responded to a major fire at a fracking well-pad in Monroe County but had to wait for five hours before receiving a basic list of the chemicals because the facility housing the list at the site was burning. The company's trade secret chemical list was only given to ODNR two days later, but the department would not pass the information on to the other responders still working at the site. It was not until five days after the initial explosions that the US EPA finally obtained the full list of chemicals and shared them with the local responders who were still fighting the on-going fire. This debacle did prompt the Governor's office to seek a statutory change to prevent its repeat, but this remedial effort was stymied in the state legislature and has not been attempted since.

The dangers of this secrecy were repeated in a truck spill in March, 2016, which dumped 4,300 gallons of oil and gas wastewater into the Village of Barnesville's main reservoir. Such trucks in the oil and gas industry are exempt from requirements of federal and state law to report their contents and to avoid routes that could cross drinking water reservoirs. When the first responders in Barnesville asked the company owning the waste water for its chemical makeup, they were merely given a basic sheet from an Oklahoma well saying only that it was "salt water" and did not include any information on the fracking chemicals or the heavy metals and radioactivity such wastes frequently contain. Ohio EPA had to conduct its own tests which disclosed radioactive radium and other chemicals in the reservoir, which given the enormous dilution of the wastewater by the reservoir, indicated that the first responders had been exposed to serious risks. It took over two months to adequately clean the reservoir. Dr. Weatherington-Rice believes it is only a matter of time before the Barnesville reservoir calamity is repeated. As of the date of this report, the secrecy laws uniquely favoring the oil and gas industry in Ohio have not been reformed.

- Richard Sahli is an attorney in Columbus who primarily practices in environmental law and testified as an expert on the difficulties he has encountered obtaining information from ODNR on fracking operations. He has made over a dozen formal public records requests to ODNR on fracking and has sued them four times for the Department's non-compliance with the state's public records requirements. He summed up his experience in stating that "ODNR pursues an entirely obvious policy of foot-dragging and hostility in responding to public records requests regarding hydraulic fracturing operations while also limiting its publicly available information on its websites to obstruct potential legal challenges to ODNR's permits for fracking operations." While the state public

records law requires all state departments to respond to such requests “promptly” and in “a reasonable amount of time,” his requests have taken six to eight weeks for a response. This has led to his four lawsuits asserting the Department had violated the “prompt” requirement and for which he obtained a fine against ODNR. He revealed several strategies used by ODNR to deflect citizen requests, including routinely claiming their requests are too “vague” to respond to, and blanket refusals to produce any records at all if a fracking company claims part of the response involves trade secret information.

He also testified about ODNR’s publicly available information being purposely limited in that it posts certain permits for which no appeal is available, but for the matters that can be appealed, they are not posted on-line but can be gotten only through public records requests. Since state law strictly requires appeals to be filed within 30 days, the routine six to eight-week delay in the department’s responding to public record requests effectively blocks the prospect for appeal. Compounding this problem of blocking appeals is the fact that the appealable orders – but not the unappealable ones - have no public notice requirements, so the public never knows when the 30 days starts to run. For these reasons, he concludes that ODNR routinely violates the human right to effective access to information and effective access to judicial and administrative proceedings.

- Leatra Harper of Seneca Lake in Guernsey County became alarmed over fracking as she watched it industrialize this bucolic area and expose her family and neighbors to toxic chemicals. The area now experiences high rates of cancer and unknown illnesses, rashes, nervous system complaints and nosebleeds. She organized a non-profit organization, Fresh Water Accountability Project, to educate the public and government officials at all levels about the hazards of fracking. The group sent many joint letters to ODNR but never received a response. She also filed many public records requests with ODNR but had them returned as “overbroad,” had lengthy delays in responses, or had them just ignored. She quickly concluded that state and federal agencies had been “captured” by the oil and gas industry, i.e., were essentially working for them. She also sought to educate legislators on the hazards of fracking but found her efforts ignored by legislators and was condescended to by their staffs.

She and her group scour newspapers for public notices on ODNR public hearings on fracking operations and drive long distances to attend, but has concluded that these public hearings are “just a sham” that make no difference as permits receive “the rubber stamp.” Her testimony demonstrates that citizen efforts to put forward the health and safety information on fracking so extensively catalogued in documents like the “Compendium” receive no consideration from Ohio government officials and agencies who closely adhere to the desires of the oil and gas industry.

- Dr. Ray Beiersdorfer, the professor of geology at Youngstown State University who testified as an expert on earthquakes, see prior section, also testified how ODNR is deliberately withholding information on earthquakes when fracking operations are implicated. ODNR routinely places information on earthquakes of magnitude 2.0 or higher or those that have been “felt,” but earthquakes in Mahoning and Harrison Counties, sites of extensive fracking operations, that have met these criteria were never posted. The Northstar 1 injection well in Youngstown was a particularly significant example as ODNR publicly denied for eight months that it was causing the area’s earthquakes and even allowed its permitted injection pressure to be raised, before the area suffered a major 4.0 magnitude earthquake that damaged many homes, finally causing the Northstar 1 well to be closed. The public information about this well, and for a second injection well in Trumbull County where 108 earthquakes were detected in 2014, has now been removed from ODNR’s website. When ODNR conducted a study of the earthquakes in Mahoning County that showed a probable connection to hydraulic fracturing, it did not make this study publicly available but would only release it pursuant to a public records request.

Conclusion: This testimony establishes violations by the fracking industry and government authorities in Ohio of the following Human Rights recognized in international law:

1. The rights to access to information and public participation in environmental decision making;
2. The right to justice, equality and non-discrimination in environmental matters;
3. The right to a social and international order in which all human rights may be fully realized.

RECOMMENDATIONS OF THE CITIZENS TRIBUNAL

Following their hearing and cross-examining of the testimony provided in the previous section, the jurors at each Tribunal met privately and determined that the Human Rights recognized in international law and described in this Report had been violated by the fracking industry and by the government and agencies of the United States and of the State of Ohio. The jurors then agreed upon the following Recommendations for action to address these violations of basic Human Rights by the industrial practice of fracking in Ohio:

"It is strongly recommended that a moratorium should immediately be issued preventing exploratory and extractive fracking wells, fracking wastewater disposal injection wells, and associated operations and infrastructure, until such time as a full, publicly funded, industry-independent, evidence-led Human Rights Impact Assessment has been properly undertaken and published in the public interest. The evidence of extreme health impacts of fracking and its associated operations support the urgency of considering the human rights impact immediately.

This Assessment should provide:

- a) A comprehensive scientific examination of human rights-impacting activities and effects on climate change connected with fracking, injection wells, and associated operations and infrastructure;
- b) An in-depth analysis of the legal obligations placed upon the national, state and local governments and other public authorities with regard to fracking, injection wells, and associated operations and infrastructure;
- c) A thorough and thoughtful human rights-based assessment of the balance of public interest with regard to the corporate and economic benefits of fracking against the risk of serious and irreversible human, social, cultural and environmental damage;
- d) A thorough analysis of the potential human rights impacts of fracking on future generations. It is a grave failure of responsibility for the US government to continue to proceed with fracking, injection wells and related infrastructure construction and development without adequate assessment of the human rights impact.
- e) An analysis of cases in which our school and/or universities fail to provide free and open environments for teachers and faculty to discuss the issues and concerns associated with shale gas development - and the cases where such open discussions are impeded by corporate influence and pressure."

ACKNOWLEDGMENTS

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The Tribunal also wants to extend special thanks to the Buckeye Environmental Network, Torch CAN DO (Clean Air Now, Defend Ohio), and the Frackfree America National Coalition for their efforts supporting the Tribunal. We also thank the Permanent Peoples' Tribunal Session on the Human Rights Impacts of Fracking (<https://www.tribunalonfracking.org/>) for its global efforts on this critical subject.

Finally, the Tribunal also thanks Richard Sahli for his work in researching supporting material and drafting this Report.