

1 **Roxanne Groff, Bern Township Trustee and resident of Athens County, Ohio.**

2 I wish to read from the Preamble of the Declaration of Human Rights:

3 Whereas recognition of the inherent dignity and of the equal and inalienable
4 rights of all members of the human family is the foundation of freedom,
5 justice and peace in the world, and Whereas the peoples of the United Nations
6 have in the Charter reaffirmed their faith in fundamental human rights, in the
7 dignity and worth of the human person and in the equal rights of men and
8 women and have determined to promote social progress and better standards
9 of life in larger freedom.

10 As members of communities and neighborhoods, we as citizens of this country have
11 an expectation that our own government will do us no harm. We have the belief that
12 a democracy has in place a meaningful way by which people can express their
13 concerns, with their voices, computers and pens to communicate about issues that
14 affect the wellbeing of our homes and families. “The family is the natural and
15 fundamental group unit of society and is entitled to protection by society and the
16 State.”

17 Today I will address the public participation process attendant to applications
18 submitted to the Ohio Department of Natural Resources (“ODNR”) for Class II

19 injection well permits. Additionally, my presentation will contrast the ODNR public
20 participation process with the Federal government's public participation rules as
21 applied by the Bureau of Land Management ("BLM") and U. S. Forest Service
22 ("FS") for the leasing of public lands for the purpose of extraction of oil and gas.
23 Both of these processes are involved with high volume, high pressure slick water
24 fracturing. Both public participation methods are flawed, abusive, and dismissive,
25 and they violate the public trust.

26 In the state of Ohio, ODNR implements the laws of the state and regulates the oil
27 and gas industry by those laws. In 1984, Ohio was granted primacy by the USEPA
28 over regulation of Class II injection wells. As a result, Ohio was permitted to
29 implement a skeletal regulatory program, which is far less stringent than the
30 regulations of the USEPA. Thus, Ohio has been permitted to make its own rules on
31 how the oil and gas industry can operate in our state. Ohio HAD the opportunity to
32 create better laws and tighter regulations, but chose to continue the very lenient
33 statutes and rules that had been in place since 1975. Thus, Ohio permitted the oil
34 and gas industry to cause many problems arising from spills, open pits of waste and
35 abandoned wells by the thousands.

36 As in many other parts of the country, Ohio's lawmakers and ODNR caved to

37 industry demands thus allowing abuses to communities to continue as they had
38 before thereby paving the way for the introduction into the state sometime around
39 2010 for the industrial assault called horizontal drilling with high volume, high
40 pressure slick water fracturing (often just referred to as “fracking” but more
41 appropriately called “industrial horizontal fracking”). One of the many abuses on
42 communities committed by the State legislature was in 2004 when HB 278 was
43 signed into law taking any authority for regulating permitting and location of oil and
44 gas wells away from local governments. Communities with zoning and other land
45 use ordinances are no longer allowed to protect their citizens from drilling operations
46 or disposal sites.

47 Ohio’s lawmakers repeatedly violate the public trust by giving all power of decision
48 making on applications for drilling of gas wells and waste injection wells and
49 violations of those operations to one person within the department with the title of
50 Chief of the division of oil and gas. In turn, the Chief promotes the oil and gas
51 industry.

52 The public participation for an application for a Class II industrial horizontal
53 fracking waste injection well in Ohio Law under Ohio Administrative Code
54 (“OAC”) 1501:9-3-06(H)(1) requires a public notice in a newspaper of general

55 circulation. In rural communities such as Athens County, not everyone reads the
56 paper of general circulation. In Torch, Troy Township, Ohio, the citizens read the
57 newspaper from neighboring counties in Ohio or West Virginia. Repeatedly, the
58 people of Torch were NEVER notified that an application for an injection well was
59 being processed by ODNR. There are now 3 injection wells in very close proximity
60 to Torch. These failures to give adequate and proper notice, which entails
61 confirmation that notices are likely to be actually received, violates human rights by
62 denying to citizens' rights to participate in decision-making on important and vital
63 environmental issues and to receive necessary information in a timely manner.
64 Moreover, it eliminates completely the ability for citizens to be involved in making
65 decisions for their communities.

66 When the applications for Class II injection well permits to be drilled in Torch, Ohio
67 were advertised in an Athens, Ohio newspaper, although the Torch residents did not
68 receive the notices, scores of people other than those living in and around Torch DID
69 read the notices in the newspaper, and they submitted a large number of comments
70 regarding health and safety issues, conservation practices and other issues of
71 substance. Under OAC 1501:3-06 (e)(2)(c), these are exactly the types of comments
72 for which the Chief SHALL call for a public hearing. However, the Chief has

73 discretion to determine if comments meet these requirements, and if he determines
74 there are no valid comments of concern, he does not call for a public hearing. This is
75 an extraordinary abuse of discretion as the Chief has NEVER called for public
76 hearing for any Class II injection well application anywhere in the state of Ohio. The
77 obligation to facilitate public participation includes obligations to safeguard the
78 rights of freedom of expression and association against threats, harassment and
79 violence. The Chief, ODNR, and through statutes that are passed, the Ohio General
80 Assembly repeatedly violate these vital human rights.

81 The state of Ohio dismisses these obligations in favor of the oil and gas industry by
82 expediting the permitting process on their behalf. This is not balanced or reasonable
83 decision making. These practices deny citizens access to any and all information
84 regarding the dreadful effects of injecting toxic radioactive waste into their
85 communities. This is an extreme regressive measure. The very idea that the state
86 calls this waste brine and saltwater, implying a benign substance, again denies
87 people the information concerning the real contents of the waste. In addition to
88 saltwater, there are as many as 1,100 chemicals in the waste of which hundreds have
89 toxic effects on humans and animals. One hundred and forty-seven of them are
90 known to cause cancer and are endocrine disrupters.

91 Rio Declaration Principle 10: “Environmental issues are best handled with
92 participation of all concerned citizens, at the relevant level. At the national level,
93 each individual shall have appropriate access to information concerning the
94 environment that is held by public authorities, including information on hazardous
95 materials and activities in their communities, and the opportunity to participate in
96 decision-making processes. States shall facilitate and encourage public awareness
97 and participation by making information widely available.”

98 Ohio falls far short of this aspirational principle. Intimidation is used by the state
99 including excessive law enforcement at meetings sponsored by ODNR. These
100 meetings took the place of public hearings and did not allow people to ask questions
101 or get answers in a setting whereby all people in attendance could participate in
102 meaningful dialog. Again this practice restricts access to information and a chance
103 for citizens to learn from each other’s comments and respond to a threat to their
104 community, violating human rights. In short, the practice marginalizes the public,
105 which leads to diluted citizen input.

106 Additional abuse is the fact the ODNR has a Web site for the public to access in
107 order to review inspection reports and other information on permitted Class II
108 injection wells. Unfortunately, the site requires specialized software, is archaic and

109 arduous to learn, and is cumbersome and extremely difficult to navigate. Thus,
110 important information about the Class II injection wells is once again denied to the
111 public.

112 Turning to the BLM and FS, the federal government is just as guilty and negligent to
113 the public when reviewing the environmental impacts of leasing minerals on public
114 lands. There is a federal law in place, The National Environmental Policy Act
115 (NEPA) signed into law in 1970, which all federal agencies must follow. NEPA
116 “was enacted to: declare a national policy which will encourage productive and
117 enjoyable harmony between man and his environment; to promote efforts which will
118 prevent or eliminate damage to the environment and biosphere and stimulate the
119 health and welfare of man; to enrich the understanding of the ecological systems and
120 natural resources important to the Nation; and to establish a Council on
121 Environmental Quality.” NEPA, Sec. 2 [42 U.S. Code § 4321].

122 NEPA is our basic national charter for protection of the environment. It establishes
123 policy, sets goals (section 101), and provides means (section 102) for carrying out
124 the policy. Section 102(2) contains "action-forcing" provisions to make sure that
125 federal agencies act according to the letter and spirit of the Act.

126 There is a very specific process in place under this law for public participation. BLM

127 and FS are supposed to work together to insure that the public is “involved in every
128 step of the planning process” There is a notice of intent, a scoping or public meeting,
129 a draft plan, an environmental review, comments, final review then an auction for
130 sale of mineral rights., i.e. selling off our public lands to industry. Unfortunately,
131 these laudable goals are not achieved by the BLM and FS in practice.

132 Starting with the scoping, the BLM and FS publicize a meeting in newspapers of
133 general circulation and put the announcement of the meeting in the federal register.

134 These meetings are held one time in the largest city in the Forest district that will
135 have the mineral sales. This prevents people from the most rural areas from having
136 access to the meeting because of distance from their homes to the meeting site. This
137 first action by the federal agencies violates human rights by ignoring the

138 Environmental Justice Act which states: “Environmental Justice is the fair treatment
139 and meaningful involvement of all people regardless of race, color, national origin,
140 or income with respect to the development, implementation, and enforcement of
141 environmental laws, regulations, and policies. EPA has this goal for all communities
142 and persons across this Nation [sic]. It will be achieved when everyone enjoys the
143 same degree of protection from environmental and health hazards and equal access
144 to the decision-making process to have a healthy environment in which to live, learn,

145 and work”.

146 Rather than a dignified public hearing where all comments are recorded, comments
147 are received one at a time, and, most importantly, all participants can hear each
148 comment and react to it, scoping meetings are set up in a dog and pony show style
149 whereby, just as the ODNR does, where as many as 150 to 200 hundred people can
150 mill around in a room looking at posters and having no idea to whom a question
151 should be directed, with no chance at all to hear other participants’ comments and
152 questions. There is no meaningful exchange of information with the public. Both
153 agencies have denied the opportunity to an actual public hearing when asked by
154 hundreds of people and even local government officials.

155 There must be public participation in political decisions that can affect the right to
156 health “at both the community and national levels.”

157 At the next step of BLM and FS’ review for leasing of public lands is that they are
158 mandated to take a "hard look" at what an action may do to the environment, and
159 what can be done about it.

160 In *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332 (1989), the Supreme
161 Court of the United States stated:

162 The statutory requirement that a federal agency contemplating a major action prepare

163 such an environmental impact statement serves NEPA's "action-forcing" purposes in
164 two important respects. It ensures that the agency . . . will have available, and will
165 carefully consider, detailed information concerning significant environmental
166 impacts; it also guarantees that the relevant information will be made available to the
167 larger audience that may also play a role in both the decision making process and the
168 implementation of that decision.

169 The BLM, being complicit with the FS, deliberately chose to do the least effective
170 and least comprehensive environmental review called an EA or environmental
171 assessment. These agencies should have done an Environmental Impact Statement
172 (EIS), which is the review mandated by NEPA that takes the hard look at impacts to
173 the environment, socioeconomic, cultural, historical and cumulative effects of
174 methane emissions, known to be accelerating climate change aspects of the federal
175 action.

176 The FS in the 1980's made a threshold determination that the act of leasing is "not a
177 federal action affecting the human environment". That determination continues to
178 guide important environmental decisions made by the FS and the BLM when
179 preparing for auctions and oil and gas leasing. That threshold determination was put
180 in place *before* horizontal hydraulic high pressure slick water fracturing was used by

181 industry for extraction of oil and gas from shale. As a result, when determining the
182 environmental effects of industrial horizontal fracking, all relevant data, current
183 studies on the effects of fracking are prematurely dismissed as having “no effect on
184 the human environment”. The Council for Environmental Quality’s Final Guidance
185 for Effective Use of Programmatic NEPA Reviews provides an entire section
186 devoted to public involvement and collaboration and cooperation among Federal
187 agencies, tribes, and state and local governments. CEQ’s encouragement of working
188 with other parties includes the development of reasonable alternatives to allow for
189 informed decision-making.

190 When federal agencies circumvent this process it is a purposeful blow to any input
191 by concerned citizens in the decision making process since their comments are
192 discounted and rejected even before they are received. The practice is an egregious
193 violation of their rights to due process.

194 Thousands of comments were submitted to the BLM from concerned citizens asking
195 for a public hearing and an EIS, which is the far more comprehensive environmental
196 determination mandated by NEPA. Many if not all citizen comments were based on
197 knowledge of the effects of fracking and toxic waste disposal in our communities.

198 All were rejected; all formal written protests to the BLM, the final process of public

199 participation were rejected. The final EA document published by the BLM and FS
200 found NO SIGNIFICANT IMPACT (FONSI) on any of the aspects of leasing
201 leading to industrial horizontal fracking that would affect communities near the
202 Wayne National Forest. A finding of NO SIGNIFICANT IMPACT (FONSI) would
203 be IMPOSSIBLE if the BLM and FS would consider the hundreds of health and
204 scientific studies that point directly to industrial horizontal fracking and its
205 infrastructure development that is poisoning our air and water, and making us sick,
206 very sick. The Compendium of Scientific, Medical and Media Findings
207 Demonstrating Risks and Harms of Fracking, published by the Health Professionals
208 of New York and the Physicians for Social Responsibility (“PSR”) states that the
209 vast majority of the studies reveal both potential and actual problems. Specifically,
210 as demonstrated by PSR’s statistical analysis of the body of scientific literature
211 available from 2009-2015—which, at the date of publication in November 2016,
212 included 685 peer reviewed papers—69 percent of original research studies on water
213 quality found potential for, or actual evidence of, water contamination; 87 percent of
214 original research studies on air quality found elevated air pollutant emissions; and 84
215 percent of original research studies on human health risks found signs of harm or
216 indication of potential harm.

217 The BLM and FS used not ONE of these studies, even though citizens submitted
218 them for review in support of the deleterious effects of industrial horizontal fracking.

219 The arbitrary and capricious practice of the BLM and FS described above is their
220 way of shutting down the public from having any political power and decision
221 making ability.

222 Only a couple of peer reviewed scientific studies were used in the Assessment, and
223 the BLM and FS relied on studies performed by their own federal employees. Those
224 studies were flawed and woefully inadequate. One scientific peer reviewed study
225 that *was* in the EA was a study by Bamberger and Oswald
226 ([Http://psehealthyenergy.org/data/Bamberger_Oswald_NS22_in_press.pdf](http://psehealthyenergy.org/data/Bamberger_Oswald_NS22_in_press.pdf)). It was
227 cited as a reference by BLM to discuss water withdrawals. In a public comment
228 submitted by a citizen brought to the attention of the BLM the fact that this study
229 was about the *health effects* on sentient beings. The study stated: “Communities
230 living near hydrocarbon gas drilling operations have become de facto laboratories for
231 the study of environmental toxicology. The close proximity of these operations to
232 small communities has created a variety of potential hazards to humans, companion
233 animals, livestock and wildlife. These hazards have become amplified over the last
234 20 years, due in part to the large-scale development of shale gas drilling (horizontal

235 drilling with high-volume hydraulic fracturing), encouraged by the support of
236 increased drilling and exploration by U.S. government agencies.”

237 The BLM’s response to this very significant substantive comment received from a
238 member of the public was to pull the reference from the Environmental Assessment
239 without any comment!

240 The public was manipulated, misled and even lied to by federal agents of both the FS
241 and the BLM. These are deplorable actions by federal agencies resulting in abuses
242 of human rights nullifying the intent of NEPA, which requires that public
243 participation be facilitated. The BLM and FS have stonewalled the public in this
244 battle for the rights of citizens as human beings to be guaranteed a safe environment.

245 Quoting from the Preamble again: “Whereas disregard and contempt for human
246 rights have resulted in barbarous acts which have outraged the conscience of
247 mankind, and the advent of a world in which human beings shall enjoy freedom of
248 speech and belief and freedom from fear and want has been proclaimed as the
249 highest aspiration of the common people”.

250 How dare our federal and state governments make us fight for our lives and even
251 more important the lives of our children and future generations on our own soil.

252 **Testimony of Bernhard Debatin**

253 Public Information, or the Lack Thereof: How to Get Answers From ODNR

254 My testimony deals with the question of how to get information about fracking
255 operations and fracking wastewater injections wells out of the Ohio Department of
256 Natural resources (ODNR). The short answer to this question is: ODNR does not
257 like to talk to citizens, does not respond to letters, does not provide public hearings,
258 and makes it hard to find specific information on their website. The most promising
259 way to get some specific information appears to be through public record requests,
260 making use of Ohio sunshine laws.

261 Let me first give you some information about myself: I am a professor of journalism
262 at Ohio University, where I teach environmental and science journalism among other
263 areas. I frequently take students, faculty, and friends on environmental tours and
264 field trips in Athens County, South-East Ohio, and beyond. I have lived in Athens
265 for the past 17 years. As a citizen, I care deeply about the environment and I have
266 been involved in environmental activities and movements for about 40 years.

267 I will now explain my points with some examples from my own experience:

268 On March 23rd, 2015, ODNR permitted the third K&H fracking wastewater
269 injection well, located at the K&H facility near Torch in the Southeast of Athens
270 County. K&H has since become one of the largest, if not the largest injection well

271 facility in Ohio.

272 The permit was approved without a public hearing and despite 242 detailed letters of
273 concern, many of which specifically requested a public hearing. However, ODNR
274 categorically declined holding a hearing, supposedly because all questions were
275 answered on their website, although the law does nowhere say that it is enough to
276 merely put some answers on a website lieu of a public hearing. It is a basic
277 democratic right of American citizens to request and hold public hearings in
278 controversial matters of public interest.

279 A March 25th, 2017, article in the *Athens News* quoted ODNR spokesperson Eric
280 Heis saying that “no public hearing will be held, as no public comment objections
281 were new or unaddressed in the initial permit review process” and that “the chief of
282 the Division of Oil and Gas Resources Management has reviewed all of the public
283 comments and answered all questions on the website.”

284 This was, simply put, a blatant lie. Most of the letters to ODNR were quite specific
285 that ODNR should respond. The little information that could be found on the ODNR
286 website at the time was under an old tab, titled “Athens Open House 11/2012,” and
287 under the tab “K&H Partners Application.” Both links no longer work and today that
288 and included a lot of unanswered questions and specific information with the request

289 information cannot be found any more on the ODNR website. However, to document
290 the lack of specific answers, I took an exemplary screenshot of ODNR's "answer" to
291 the concern that injection wells increase seismic activities.¹

292 Given that we have a solid record of injection-well- induced earthquakes all over the
293 country, including Ohio (Youngstown), this general and categorical answer is
294 breathtakingly ignorant. It remains ODNR's secret how they made this determination.
295 Contrary to this unconcerned assurance, the USGS stated in a February 2015 press
296 release: "Deep injection of wastewater is the primary cause of the dramatic rise in
297 detected earthquakes and the corresponding increase in seismic hazard in the central
298 U.S."

299 My four-page-long Jan. 5th, 2015, letter of concern to ODNR, identified six main
300 areas of concern and specified in detail and carefully how the new well would
301 contribute to the respective concern. The areas of concern included: (1) Injection
302 volume and fluid migration risks, with specific reference to the proximity of the three
303 K&H wells and the risk of competition for space and ensuing additional pressure; (2)
304 Normal operation risks, such casing failure and insufficient geological and aquifer
305 data in the area; (3) Increased risks of earthquakes, with specific reference

306 to the 2011 Youngstown 4.0 earthquake and the 3.5 earthquake near Nelsonville in
307 Athens County in 2013; (4) History of incidents and location suitability, specifying
308 failures, malfunctions, and other incidents at the facility and the increased risk of
309 water contamination; (5) The lack of any plan for surface and ground water
310 monitoring and for air monitoring in and around the facility; and (6) Additional
311 concerns about damage to infrastructure, danger to public safety, and risk of loss of
312 property values.

313 Since all six areas presented new aspects and location-specific objections, one can
314 only conclude that ODNR must have willfully ignored them. And ODNR also
315 ignored my closing request for a public hearing. In fact, in my case as well as in the
316 case of most other letter writers, ODNR did not even have the courtesy to
317 acknowledge receipt of the letter, not to mention providing answers or any specific
318 information to the requestors.

319 My earlier letter concerning the permit application for the K&H well number 2,
320 written on Nov. 26, 2013, had not been answered, either. And my Nov. 29, 2015, six-
321 page-long letter³ regarding the application for a permit to add another injection well
322 to the ATHA facility on SR 144 near Frost remained unanswered, too, even though I
323 had specifically asked for a receipt and requested a response to each of the individual

324 points.

325 In this letter, I specified first location-related concerns, in particular the physical
326 setup of the facility, its closeness to the Hocking River (only 150 feet!), and the fact
327 that SR 144 gets frequently flooded from both sides, making the facility
328 inaccessible during these episodes, which would magnify the effects of any spill or
329 accident. Due to the proximity to the Hocking River and to riverbed-fed aquifers, this
330 facility presents a serious danger to the drinking water resources of millions of
331 people. Here, too, no geological study or aquifer mapping had occurred. In addition,
332 I detailed four main areas of concern: Risk of earthquakes, Risks of normal
333 operation, Lack of monitoring, and concerns about infrastructure, public safety, and
334 property values.

335 In this case, too, I requested a public hearing in Athens county, “based on my
336 substantive concerns with the serious deficiencies of this permit application to
337 prevent contamination and pollution of surface of the land, surface water and
338 groundwater, as required by Ohio Administrative Code 1501:9-3-04.” I also
339 reminded Chief Simmers and the other addressees that this was the third time I was
340 writing an extended letter of concern to ODNR with regard to injection well

341 permissions and urged them “to acknowledge this letter, to take it seriously, and to
342 make an honest effort in considering my concerns in an impartial and dispassionate
343 manner.” Yet, no answer was provided at all.

344 This deafening silence, the lack of even acknowledging the letter, as well as the
345 suboptimal information policy on ODNR’s website and their reluctance to hold
346 public hearings, are depressing and paint a rather unfavorable image of ODNR. It
347 can also be said that ODNR makes it difficult to submit public comments, as they
348 usually have to be submitted within 14 days and often fall into holiday periods.

349 In a 2014 report, the Ohio Citizen Action and Ohio Citizen Action Education Fund
350 found a correlation between regulatory failure and a “revolving door between agency
351 and industry,” as well as ODNR’s “disdain and disrespect for public inquiries and
352 requests,” mentioning Portage County and Athens County as typical examples⁴ The
353 report also observed that ODNR does not always publish the permit of new injection
354 wells and sometimes removes relevant data from its website, such as earthquake
355 data.

356 In closing, I want to mention that ODNR has a built-in conflict of interest, because
357 this agency is on the one hand in charge of protecting the natural beauty and
358 environmental integrity of Ohio, on the other hand, they benefit from the

359 commercial use of natural resources, including oil and gas, minerals, and timber.

360 The “revolving door” between ODNR and the industry, as well as the fact that

361 ODNR profits from injection wells ensure that this conflict of interest tends to

362 benefit one-sidedly the industry at the expense of Ohio’s citizens and the

363 environment. It is unfortunately no surprise that ODNR does not want to

364 communicate with Ohio’s citizens.

365 **Testimony of Felicia Mettler**

366 I am a lifelong resident of Athens County. I am a wife and mother of three. My

367 husband and I made a choice to raise our children on family-owned land in a

368 peaceful quiet setting in the country away from the crime and pollution the city often

369 offers. Our sense of security has been shattered as toxic hazardous frack waste

370 surrounds our small community. From the trucks hauling this waste, to the waste

371 water disposal sites, and the injection wells, we now live with the fear of “WHEN”.

372 WHEN will the air we are breathing make us sick? WHEN will the water we drink

373 become contaminated? WHEN will the ground beneath us crack and damage our

374 homes?

375 My mother and father-in-law live just 1,800 ft. from one of the largest volume

376 injection well sites in the state of Ohio. At times, the noise from the site is so loud

377 and un-nerving that my mother-in-law has to go inside her home or leave her home
378 to get away from the noise. She has had to take blood pressure medication. They
379 have noticed the water in their bird bath rippling for no reason. They have sat in their
380 home and felt vibrations as well as their neighbors ¼ mile away. These neighbors
381 have experienced odors so strong, their eyes were burning and she had to close her
382 windows and doors and keep pets inside the house. Again, the serenity of living in
383 the country has been shattered.

384 My family is being surrounded by poison. I live five miles from this same site. I live
385 ten miles downriver (Hocking River) from another site which has recently added
386 three new large holding tanks. This site is also just one hundred and fifty feet above
387 the river. These new tanks are twice the size as the existing ones. A second well has
388 already been permitted. I fear it too will soon be drilled and more toxic waste
389 injected in our ground. I fished in this river when I was a kid. I swam in this river
390 when I was a kid. I looked forward to sharing these experiences with my children as
391 they grow. That memory has been stolen from us. It will never happen. I will never
392 allow my children near the water for fear it's contaminated and no one knows.

393 The only requirement to inform the public that one of these facilities may be built in
394 your community is a public notice in a local paper stating a permit has been applied

395 for. If you are lucky, you will happen to get that particular paper. In our case,
396 because we live further away, we do not get that paper. This is what happens more
397 often than not. This permit does not explain what these sites are nor what goes in
398 them. Therefore, these facilities seem to be constructed before the public even knows
399 what's going on.

400 This is exactly what happened in our community. In 2015, my mother and father-in-
401 law thought everything they were experiencing was coming from the facility across
402 the highway. They made some calls and through those calls, Roxanne Groff
403 contacted them. She came to their home and explained just what that facility was and
404 what goes in it. This is the first time we had ever heard the word “injection well” and
405 “frack waste”. The more we learned, the more we felt we had an obligation to inform
406 our community of the risks they as citizens were being subjected to, and the lack of
407 protection Ohio law provides us with.

408 Ohio law does not require fresh water monitoring wells around Class II injection
409 wells. This puts thousands of citizens across the state at risk if our drinking water
410 becomes contaminated. We are without any warning of this happening. We cannot
411 survive without clean water.

412 In 2015, our local water company sent a letter to its 14,000 customers warning that

413 they could not protect our drinking water from any chemicals and contamination.

414 They have not been informed of what chemicals to look for, therefore tests cannot be

415 put in place to detect traces of these chemicals. I have attached a copy of this letter

416 from Tupperts Plains Chester Water Company. We cannot survive without clean

417 water.

418 Should our water become contaminated, the cleanup will come at customers'

419 expense. And who will pay the medical expense when we are all sick from drinking

420 poisoned water???? O&G??? The company that owns the injection well????? Our

421 government????

422 This waste is injected with constant high pressure directly into our ground and "in

423 theory" this liquid waste will never find its way to our aquifers, our rivers, our wells,

424 our ponds, or just simply our ground. For one, the risk is too great to chance our

425 health and safety on a "theory". Second, they cannot and do not track this waste.

426 Liquid will always find the path of least resistance. Who is to say this liquid has not

427 already traveled 50 miles from the injection site and is contaminating someone's

428 water without anyone knowing? Again, we cannot survive without clean water!

429 Ohio law does not require monitoring of the air for VOC's around these sites. How

430 are we to know the air we're breathing is not causing long term health effects? About

431 1/2 mile from the site in Torch is a park with a ball field. Our children practice at
432 least 3 days a week and home games teams from all around play all day every
433 Saturday and Sunday. What are we exposing these children to? Will they develop
434 asthma or other symptoms from breathing poison air? How are we to know? The risk
435 is too great for Ohio to continue the lack of protection for public health and safety.
436 There are eight injection wells in Athens County. Six are in operation. One more that
437 has not been drilled yet. With no limitations on how much waste can be injected
438 ANYWHERE, when is enough, enough? The public has no say on any of this nor do
439 our local officials. I have attached a copy of a chart made by Teresa Mills showing
440 these eight wells dating the year they began taking waste. It is shocking to see the
441 difference between the old wells and the wells constructed in the last four years. The
442 amount of waste being injected into our ground in such a short amount of time is
443 frightening to say the least. What are the repercussions going to be? For every action
444 there is an equal reaction. I have also included the amount of waste from 2011 to
445 2016 for each county in Ohio. Again, the numbers are staggering. These injection
446 wells are not like production wells when there is no more mineral to be found,
447 drilling stops. Injection wells NEVER stop injecting toxic waste into our ground,
448 EVER! How much waste can our earth take before disaster? It is absolutely beyond

449 me how my government can simply dismiss the dangerous risks my family and my
450 community are now forced to live with.

451 When a permit for an injection well is applied for, the citizens only have 15 days to
452 write public comments. Our comments are dismissed. Answers given from ODNR
453 are simply infuriating. For example, A site that is located on a windy road which
454 happens to be a main road for our local middle and high school and just one hundred
455 and fifty feet above the Hocking River where all residents along that road have
456 private water wells as their main source of water, applied for a permit for a second
457 injection well. Those three facts alone should have been enough for ODNR to deny
458 the permit and put public safety above profit of O&G. Once again, the public's health
459 and safety takes a back seat to O&G. I have attached all comments that were sent to
460 ODNR.

461 Trying to navigate the ODNR web site for public information is nearly impossible.

462 Training for the public is necessary for this task. I challenge anyone reading this to
463 access and read RBDMS reports on injection wells in Ohio. These reports are
464 supposed to be updated every week, however, I can read a report and find reports
465 were added from the month before. The lack of detail and attention is unacceptable.

466 Special software is needed to access this information. This is an extra expense our

467 citizens have to pay out of pocket.

468 Because the truck traffic never stops to the Torch, OH facility, in 2015 we decided
469 to record just how many trucks dump their waste in our community. We asked for
470 volunteers to help take shifts throughout a 24-hour period recording every truck
471 entering and leaving the site in a log book. One hundred and eight trucks were
472 counted. They do not stop. They run on average every 15-20 minutes.

473 A year ago I was contacted by a person who works for the industry. This person is
474 deeply concerned about the health risks they are facing and what are the health risks
475 their family is facing. This person has paid attention and has connected the dots and
476 knows it is not just salt water going into these facilities. This person knows they are
477 being lied to. This person has also shared their eyewitness accounts of unlawful
478 actions that continue on a daily basis by industry. The lack of regulation and
479 complete disregard for human health is beyond me. What facts we know about
480 fracking and injection wells are horrible alone, however it's the facts that are hidden
481 that would be considered a crime against all humanity.

482 I am a mother. My children matter. It is my job to protect them and keep them safe
483 from any harm. I gladly to that job and do it with the best of my ability.

484 It is our governments job to protect and keep the public safe. They have fallen short.

485 **Testimony of Scott Whitacre**

486 Ohio is currently in a dilemma. Oil and gas reserves have been discovered and
487 opportunities abound for leaseholders, workers, local businesses, and the related
488 oil/gas industries. This would not be a problem under normal circumstances. Our
489 nation and the world currently run on fossil fuels. While this undoubtedly won't
490 always be the case, it is the world we presently live in.

491 This reality however is mired by hidden costs to the public's health and the
492 environment. There have been numerous documented, peer-reviewed scientific
493 reports on the effects of the chemicals and radioactive elements released during the
494 extraction, transfer, and refinement of shale gas and oil. Many people, including
495 myself who live in and around my Hometown of Barnesville, Ohio, have
496 experienced the ill health and negative economic effects of living near well pads and
497 compressor stations. Splitting headaches, nervous system tremors, respiratory issues,
498 insomnia, and mental trauma over the effects a tanker spill of radioactive waste may
499 have had on our reservoir and the public's health. I also have developed cysts on my
500 liver and recently a kidney which so far, are unexplained.

501 Anyone who has kept up with what has happened in other areas after gas/oil fracking
502 has occurred, knows that water has been contaminated by the remnants of the

503 fracking process. Drill casings are cemented by the industry where they penetrate
504 water aquifers, but the rate of failure is well documented! industry spokespersons
505 like to point out that their operations are thousands of feet below the aquifers. What
506 is seldom discussed is that many of the chemicals are lighter than water and will seek
507 the surface. Once a person's water is lost, their property's value plummets, and the
508 owners are often stuck on a worthless piece of ground with no water to sustain life,
509 and no recourse too relocate.

510 I personally feel after numerous years of researching the fracking process, that our
511 Federal and State government is in collusion with the oil/gas industry to side-step
512 environmental regulations. Some of these regulations were passed in 1973 to protect
513 the public's access to clean air and clean water. Exemptions from the Clean Air and
514 Clean Water Acts were granted to oil companies by American politicians who
515 were/are vested in fossil fuels. Public Right-to-Know Acts have been circumvented
516 by fossil fuel funded legislators who won't allow the public access to the chemicals
517 contaminating our water aquifers.

518 The State of Ohio did not take authority to irresponsibly mismanage the shale gas/oil
519 mining and waste disposal industry. That authority was granted to our Governor by
520 the Nuclear Regulatory Commission after Ohio signed an "Agreement State"

521 contract with them. It gave our governor the power to designate which agencies to
522 best run the gas/oil operations in Ohio. One of governor Kasich's first acts was to
523 take OEPA out of their regulatory role which previously had involved inspecting the
524 fracking industry and managing radioactive waste disposal in our landfills. In 2013
525 our Ohio legislators, at the Governors request, redefined NORM (normally occurring
526 radioactive material) and T-NORM (technically enhanced radioactive material) to
527 ease the testing, record keeping, and disposal practices, too better serve the requests
528 of industry stakeholders. The industry is presently doing their own testing of waste
529 before deciding how much they will spend to get rid of it. Some OEPA employees
530 have pointed out that some of the testing and monitoring practices currently used are
531 flawed. A few of them have been forced into early retirement!

532 I received a return call on 6-14-2016 from two Nuclear Regulatory Commission
533 personnel: Jim Heller, the Senior Allegation Co-ordinator, and Jim Lynch, the NRC
534 State Liaison Officer that works with various state's Department of Health
535 employees. Mr. Heller said that Ohio's Agreement State status relinquished authority
536 over to our governor to handle the waste generated from the use of radioactive
537 material used during "wireline" testing. Wireline testing uses NRC regulated
538 radioactive materials to drop down a well bore and measure density, not necessarily

539 underground radiation levels. The governor then designates that authority onto other
540 state agencies, in the case of shale gas/oil fracking, sole authority was given to
541 ODNR, which is also the permitting agency, and OEPA was taken out of their
542 previous regulatory testing role. They told me that the well pad operators take their
543 own samples, but have to send them off for independent testing. My understanding is
544 that at various stages of the fracking process, the wastes can become highly
545 concentrated with radioactivity. Filter socks have already been attempted to be
546 illegally disposed of in Ohio at the East Sparta Landfill. No one but the well
547 operators know what waste is being sent off for testing. This is cause for concern
548 when considering the money that would be saved by the companies for not having to
549 ship highly radioactive waste out west for costly disposal.

550 I understand that our nation has a history of running on fossil fuels and I myself have
551 worked in that industry. I have gas powered cars, motorcycles, lawnmowers, and I
552 heat with fuel oil. My realization that my life evolves around supporting a relatively
553 unregulated industry whose practices directly impact the health and property values
554 of those living around related oil/gas infrastructure, does little to treat my insomnia
555 or ease my conscience.

556 The true costs of supporting fossil fuels could be known to all consumers if breathing

557 clean air, drinking clean water, and farming uncontaminated soil, were to be declared
558 too be inalienable human rights by the United Nations. Please consider discussions
559 which may lead to overturning the exemptions granted to the gas/oil industry from
560 complying with the Clean Air & Clean Water Acts in America and abroad? Better
561 safeguards for the environment, workers, and improving the quality of life of those
562 living around shale/gas operations would be much appreciated.

563 **Testimony of Greg Pace**

564 Columbus Community Bill of Rights has been working to ban oil/gas extraction
565 activities from being allowed within the city of Columbus. The Ohio state
566 legislature has deregulated the radioactive content of shale drill cuttings so that they
567 are assumed to be safe enough to ignore and dump on landfills across Ohio. With
568 the scant data available on radioactive testing of the frack waste stream that is
569 disposed of in Ohio, we are unconvinced that public trust was a priority when the
570 case for deregulation of solid frack wastes in Ohio was made to the legislature.

571 Subsequently, they inserted this language into the 2013 state budget bill.

572 A very informed Ohio citizen requested information on the radium quantities of the
573 solid waste test results that the OH EPA supplied to the ODNR oil and gas division
574 chief. This information was supposed to be the basis for the Ohio legislature to

575 determine if 90% of the solid frack waste stream should be exempted from regulation
576 of radioactive content. Until this citizen kept after the EPA director like a bulldog, to
577 divulge that a value within the test results was more than 100 times the drinking
578 water limit for radium-226, he denied her that this public bit of information existed.

579 We have watched a remediation landfill in south Columbus owned by Ohio Soil
580 Recycling, after the EPA authorized them to bio-remediate cuttings as they
581 remediate other brownfield soils. The protocol used for their pilot study was EPA-
582 sanctioned, to demonstrate that radium levels from two Chesapeake Energy-
583 delivered truckloads of cuttings, were within drinking water limits. However, the
584 protocol was completely mismatched for the materials being tested. A University of
585 Iowa study showed that the protocol can show a very small percentage of the radium
586 levels due to dissolved solids in the samples, when the protocol was designed to test
587 clear drinking water. Although they have not deregulated the radioactive content of
588 drill cuttings, PA and WV use this same 901.1 protocol for radium measurement of
589 liquid and solid fracking wastes.

590 We are now in the process of meeting with individual members of Columbus City
591 Council and are hoping we might convince them to be the first local government in
592 Ohio that I know of, to insist on finding out who in the city is accepting shale drill

593 cuttings, and if any are, doing proper testing for radium to ensure that radioactive
594 materials are handled through proper methodology that is stipulated for non-
595 exempted low-level radioactive waste streams.

596 We have 13 legacy Class II injection wells north of Columbus, most sitting smack in
597 the city's source water protection area. Almost all of these are spent production
598 wells, converted to injection wells. Our group has given several tours of some of
599 these wells, and are organizing a tour with Columbus city council so they can see the
600 old, dilapidated facilities used to inject millions of gallons of frack brine under our
601 source water. If the surface condition is compromised, we figure the pipes beneath
602 the surface most likely will be as well.

603 A story is developing in that region that is hearsay at this point, but I am hoping to
604 find at least one person to be willing to interview with media.

605 I have spoken to several people in the past weeks who claim that brine is being
606 illegally dumped in wetlands and farm fields north of Columbus, in this same source
607 water protection area. The trouble is that nobody wants to speak up, because either
608 they are afraid of inciting the wrath of a local land baron/employer, or even afraid
609 that they will not be able to sell their own property.

610 I initially got information to begin searching for evidence of illegal dumping from

611 people in another rural area of Ohio. One of them has two types of cancer, which
612 has occurred after a compressor began operating upstream of their home in 2013.
613 This person took more than an hour to pick themselves up off of the kitchen floor
614 following the first time the VOC's from the facility reached their home on a Sunday
615 morning. Their dogs would not go outside. Compressor station blowdowns occur
616 weekly. They reported this problem to their Ohio state representative, and to the TV
617 news. Nothing came from it. They had someone who alleged they were from
618 Chesapeake Energy visit them. When they tried to get in touch with him after the
619 visit by using the business card he left with them, they could not locate him and it
620 appears that his identity on the business card does not exist.

621 These people told me of a person in a small community in north-central Ohio who
622 has two types of cancer and now has a feeding tube. They allege that illegal
623 dumping of brine had occurred in their area, and suspect this might be a cause of
624 their health problems. Because people do not want to be known as witnesses, we are
625 having problems finding more than anecdotal evidence.

626 We have heard over the years, about so many potential witnesses who have signed
627 away their ability to make public the harms that have occurred to their property,
628 lives, and/or health through corporate gag agreements for monetary compensation.

629 Some are brave enough to still speak about what they feel they can.

630 Market-state-oriented focus always tends to lead to the suppression, of information
631 and clarion calls to circumstances that cause health suffering due to toxins released
632 in communities from industrial activities. ‘Unmitigated market-forces Capitalism’,
633 or as I refer to it, “Naked Capitalism”, are terms that refer to a system where the
634 worst actors gain ground in ruling the roost, over time.

635 As a ‘Neo-Humanist’, I think I can understand where all is connected. There is no
636 GOD AND THEN us, but more like us within GOD. As long as we inhabit these
637 marvels of the Universe that we call ‘physical bodies’, there can be nothing more
638 spiritually-relevant than keeping them operating normally, so that experiencing life
639 through them does not take on nightmarish qualities.

640 We are born with a mind that has a switch ... for some of us it is turned on early, for
641 many others it needs to be turned on through learned wisdom, and for many more it
642 does not get switched on at all. This switch amounts to having the vision to discern
643 between understanding that civilization’s primary responsibility is to ensure that all
644 bodies that bear human beings must have all resources available, to ensure that they
645 are kept in a condition that allows life to be worth living in them. No religion, no
646 philosophy or system of justice or economics, can hold a candle to being worthy of

647 representing our lives either as a group or individually, if they do not hold true to
648 honoring the resilience of each one of us, through our moment-to-moment Earthly
649 existence in a body. This is the bottom rung of Maslow's Hierarchy of Needs, and
650 no needs or aspirations that exist higher than this rung are functional without this
651 basic support.

652 When Columbus Community Bill of Rights became one of the groups in Ohio who
653 are pushing our fellow human beings to insist on local self-governance for matters
654 that higher authorities will not properly handle, our justice system in Ohio was to be
655 our last vestige of hope in the regulatory and governing state authorities. Our
656 Columbus group had hoped that this branch of public governance would still have
657 the impartiality to be able to properly decide between private moneyed interests, and
658 public and even commons-based interests of their human constituents. We have
659 witnessed over the past two years, that this is not the case. Money influences the
660 court system's reflections of justice as it does in the other branches of state
661 governance. When the executive branch shunts human beings' constitutional rights
662 in Ohio to be able to democratically enact changes to our laws by using our right of
663 initiative to place laws on the public ballots, and the justice branch upholds these
664 politically-motivated refusals of our rights, we are faced with the stark reality that

665 the Ohio state government is not the government of the human beings who live in the
666 state of Ohio.

667 It is only the government of those human beings who are still willing to believe that
668 having a nebulous dream of public trust is enough to keep us safe from lethal harms
669 that self-interest demands. When the courts cannot judicially discern between the
670 obvious state constitutional rights of human residents and the fictitiously devolved
671 rights of corporations to do their harms, then it is not the system of the human beings
672 of the state of Ohio. This is what must be understood. The switch must be turned on
673 for many, many more people. It is only when this really happens, that we will do
674 what righteous collective human will can and must do ... have each others' backs.

675 **Testimony of Dr. Julie Weatherington-Rice, PhD, CPG, CPSS**

676 Human Rights Obligations to Water: Right to Safe Drinking Water

677 My name is Dr. Julie Weatherington-Rice. I am a Certified Professional Geologist,
678 a Certified Professional Soil Scientist and am current in my Occupational Safety
679 and Health Act (OSHA) Certification training. I work primarily in the field of
680 protecting public water supplies. I am the Sr. Scientist for the firm of Bennett &
681 Williams Environmental Consultants Inc. in Westerville, Ohio; a former Adjunct
682 Professor at The Ohio State University in the Department of Food, Agricultural

683 and Biological Engineering; a scientific advisor to the Ohio Environmental Council
684 and I provide technical training for continuing education credits to Public Water
685 Supply Treatment Plant Operators. To that end I have been researching the nature
686 of oil and gas drilling operations, production, transport and waste streams as they
687 potentially can impact public water supplies for 40 years. I have shared this
688 research for a number of years now through The Ohio Chapter of the American
689 Water Works Association, the Operator Training Committee of Ohio and the Ohio
690 Rural Water Association. With most of the public water supplies in eastern Ohio
691 surrounded by oil and gas drilling, production, transport and storage of produced
692 and waste materials and the final disposal of those waste materials, it has become
693 obvious that there is a potential for the accidental contamination of a public water
694 supply. Since currently, the oil and gas industry is not required to reveal the
695 chemicals contained in any of those sources to Ohio EPA, first responders, landfill
696 operators or public water suppliers, it becomes almost impossible to plan for
697 emergencies and/or to respond appropriately when accidental releases occur.

698 The oil and gas industry has convinced the Ohio Legislature that all the aspects of
699 drilling and operating gas and oil wells involve special techniques and chemicals
700 that are governed by the Trade Secrets Act and therefore can be protected from

701 release to state and local agencies and the general public. They have their own set
702 of regulations separate from the Federal Emergency Management Community
703 Right-To-Know Act and the Ohio Emergency Management Commission. At this
704 point in time, they only have to report to the Ohio Department of Natural Resources
705 (ODNR) Division of Oil and Gas Resources, and ODNR is forbidden to share that
706 information under Ohio Law. In June, 2014, the catastrophic Eisenbarth well pad
707 fire in Monroe County demonstrated the critical danger of that arrangement when
708 first responders from 14 fire departments in three Ohio counties and West Virginia
709 responded to the explosions and fires and then had to wait for five hours before a
710 basic list of chemicals burning on the site could be supplied. The Trade Secret
711 chemicals were reported to ODNR two days later but the Agency could not pass on
712 that information to any other group working on the site. Finally, five days after the
713 initial explosions, US EPA obtained the Trade Secret list of chemicals and shared
714 them. The fire was still burning at the site. In reviewing the disaster and the
715 response, State of Ohio officials recognized that there had to be a mechanism to at
716 least release chemical information in a timely fashion in the case of an emergency.
717 At the behest of Ohio EPA, Governor Kasich inserted a section into the 2015-16
718 budget bill that would require that information to be shared with other State and

719 local agencies, first responders and where applicable, public water suppliers in case
720 of an emergency. The section was removed by the Ohio House, reinserted by the
721 Ohio Senate and then removed in Conference Committee. This year, the section
722 was not drafted into the 2017-18 Budget Bill so the Ohio Environmental Council
723 attempted to get it introduced as an amendment. I submitted the following
724 testimony in support of that effort. We were not successful in getting the
725 amendment inserted but will try again with the Ohio Senate who now has the
726 Budget Bill. There is hope that this effort may be successful but even if the Ohio
727 Senate approves the amendment, there is little hope that the Ohio House will agree.
728 Without such a change to the Ohio Revised Code, first responders and public water
729 suppliers are placed in an impossible position in trying to protect Ohio's soil, water
730 and air, the biosphere, from contamination as well as the property and lives of Ohio
731 citizens.

732 Public water suppliers are required by Federal Law under the Safe Drinking Water
733 Act, to create a Source Water Protection Area Management Plan. This plan
734 identifies all potential sources of chemical contamination that exist in the
735 community's Source Water Protection Area (a specifically mandated geographical
736 location that has been designated or certified by Ohio EPA for each public water

737 supply in Ohio). Communities plan for emergencies and determine alternative
738 sources of potable drinking water in case of an accident. For every other chemical
739 manufacturer, user or disposal facility, the public water supply has access to the
740 types and amounts of chemicals on site. This is a Federal requirement that
741 documents cradle to grave tracking of chemicals. Two Federal Acts from the
742 1980s, SARA Title 2 and Emergency Planning Community Right-to-Know
743 (EPCRA) created the tracking system. In Ohio, the oil and gas industry is exempt
744 from having to report the chemicals involved in the production, shipment and
745 waste streams of oil and gas to Ohio EPA, to first responders, to landfill operators
746 and to public water suppliers. If public water supplies are impacted, this situation
747 makes it almost impossible to quickly treat an emergency release of part of the
748 production or waste stream.

749 This is no longer a hypothetical discussion. On March 9, 2016 at 3:00 AM, a
750 tanker truck overturned at the upper end of the Village of Barnesville's main
751 reservoir, dumping approximately 4,300 gallons of "brine" into the reservoir.
752 Barnesville is in Belmont County and it supplies all the public water to an 80
753 square mile area in parts of four counties. Barnesville has three reservoirs that are
754 connected by pipeline to the surface water treatment plant located at the

755 downstream dam end of the reservoir that was contaminated. There is no other
756 treated water tie- in or pipeline to an additional raw water source to augment the
757 Barnesville system. To create such a connection would cost many millions of
758 dollars and take years to plan and build. So on the morning of March 9, 2016, on
759 orders from Ohio EPA, Barnesville switched to their alternative reservoir sources
760 which, fortunately, were also full, and began working with Ohio EPA to try to
761 figure out what was dumped into their water supply and how long it would take, if
762 ever, before their main reservoir would be safe to use again.

763 The affected reservoir, at spring stage, holds approximately 140 million gallons of
764 water. The tanker truck was carrying 4,300 gallons of “brine” for an
765 approximately 34,000:1 dilution factor, or for each gallon spilled into the
766 reservoir; there was approximately 34,000 gallons of uncontaminated fresh water
767 to dilute it. With that high level of dilution, it would take a concentrated chemical
768 mixture with very low levels of a contamination threshold to even be measured in
769 the reservoir’s waters. Ohio EPA learned that the “brine” being hauled for disposal
770 at a Class II Injection Well near I-70 came from a Gulfport well in Monroe
771 County. The truck was taking a shortcut through the Village’s Source Water
772 Protection Area, at 3:00 AM, which the driver can do because the waste is exempt

773 from Federal Toxic and Hazardous reporting requirements and so not subject to
774 rerouting around the Source Water Protection Area which could have been
775 required if it had been carrying any other chemical. When Ohio EPA requested
776 information as to what had been in the truck and was now in the reservoir,
777 Gulfport responded with a safety data sheet from an Oklahoma well from the year
778 before for “Produced water – sweet” reported to be 80-90 % water, less than 16%
779 sodium chloride, less than 16% calcium chloride, less than 1% oil, less than 1%
780 benzene. Gulfport did not report the presence of heavy metals, radioactive metals,
781 or contamination from drilling mud chemicals, contamination from hydraulic
782 fracturing chemicals or even (correctly) where the “brine” was from. Under
783 current Ohio law, Gulfport was allowed to provide false or incomplete chemical
784 information to Ohio EPA who then had to tell Barnesville that “salt water” had
785 been dumped into their reservoir.

786 Fortunately, Ohio EPA has some experience with the chemical makeup of
787 produced water out of the Utica formation so they tested for a much larger list of
788 chemicals.

789 Ohio EPA tested for Radium 226 and 228, Gross Alpha, Gross Beta and combined
790 Radium; Volatile Organic Compounds and Semi-Volatile Organic Compounds

791 (which would include the oil and benzene), Total Dissolved Solids (which would
792 include the salts); metals and phthalates (plastic softeners). At noon on March 9th,
793 Ohio EPA got a reading of 3.2 pCi/L of Radium in the reservoir. While this
794 number is lower than the Safe Drinking Water Act Maximum Contaminant Level
795 of 5 pCi/L in the reservoir, (given the huge dilution factor of 34,000:1) the Radium
796 levels in the “brine” would have been far higher than exposures considered safe by
797 the US EPA. Therefore, first responders and clean-up crews were potentially
798 exposed to significantly unsafe levels of radium without their knowledge, without
799 proper notification so that safety precautions could be taken to minimize their
800 exposure impacts. Other chemicals were also elevated above background. Clearly,
801 there was far more in that brine spill than what Gulfport reported on their
802 Oklahoma well safety data sheet.

803 Because of the unknown chemistry of the spill, the concentrations of chemicals
804 that were identified in samples from the overturned truck, the reservoir water and
805 sediment, Ohio EPA was very rigorous in their reservoir cleanup, requiring
806 repeated testing of the reservoir while spring rains continued to flush out the
807 contaminants. They finally finished and released their report on May 20, 2016 and
808 the reservoir was brought back on line, more than two months after the accident.

809 Had this accident not happened in March but in August or September when levels
810 are significantly reduced in all of Barnesville's reservoirs and there were no spring
811 rains to flush the contamination, the region could have experienced a very different
812 outcome. Water rationing might have been required. Outlying communities might
813 have had to be supplied by Ohio National Guard Water Buffalo tanks.

814 Better required cooperation from Gulfport in reporting the chemical makeup of the
815 produced water would have speeded up the evaluation of the contaminant impacts
816 to the reservoir. Giving the public water supplier the right to reroute oil and gas
817 waste streams out of their Source Water Protection Areas would have prevented
818 the whole experience but that redress is beyond the scope of this amendment. This
819 type of contamination is going to happen again. Passage of this amendment would
820 begin to normalize the risky situation that eastern Ohio public water suppliers find
821 themselves in. With all the oil and gas activity in eastern Ohio overlaying all the
822 Source Water Protection Areas of all the public water supplies in the region, on
823 any given day, any public water supply is at risk. All it takes is one accidental
824 release. Cleanups are extremely expensive and, if the damage is so severe that the
825 water supply cannot be cleaned up, replacing that supply runs into the tens to
826 hundreds of millions of dollars and can take years. There are no State or Federal

827 funds available to the damaged community to make them whole. Since the oil and
828 gas industry typically incorporates each well separately, there are no industrial
829 deep pockets to make the community whole. The community shoulders all of the
830 risk and they don't even have an accurate list of what they have to combat to make
831 certain that the water they provide is safe and meets all the requirements of the
832 Federal Safe Drinking Water Act.

833 The industry claims trade secrets that they must be able to protect their secret
834 chemical mixes from others who would steal them and thereby profit. I would
835 argue that this claim is a "Red Herring". No one operating a public water supply
836 system is planning to mix up a special batch of hydraulic fracturing fluids or
837 drilling muds, they don't need exact formulations, but they need to know the
838 chemicals in the releases and their relative volumes. With that information, Ohio
839 EPA, first responders and the public water supplier can make informed, complete
840 decisions instead of just guessing in the dark. Why should the oil and gas industry
841 be exempt from the same set of rules and laws that every other chemical industry
842 in Ohio has to abide by? They are putting us all at risk with their cowboy
843 cavalier behavior. This is not the wild west of the 1880s; this is 2017 in a heavily
844 populated state that believes in keeping its population safe and its drinking water

845 pure and usable. Please consider inserting the OECAF Emergency Chemical
846 Disclosure Amendments into HB 49 and then vote to support it. The people in
847 Ohio who drink water, which is everyone, are counting on you to help protect
848 them.

849 **Testimony of Cathy Burnhart**

850 **Testimony of Richard Sahli**

851 My name is Richard Sahli and I have lived in Columbus, Ohio, for most of the past
852 forty years. I am an attorney practicing primarily in Ohio environmental law and
853 have served in the Ohio Attorney General's Office, as Chief Counsel in the Ohio
854 Environmental Protection Agency, and as a private attorney for environmental and
855 community organizations.

856 I am here to testify about how the State of Ohio's Department of Natural
857 Resources ("ODNR") abuses the public's right to public information in a manner
858 that violates human rights internationally recognized by the United Nations. My
859 experience in Ohio is that ODNR pursues an entirely obvious policy of foot-
860 dragging and hostility in responding to public records requests regarding hydraulic
861 fracturing ("fracking") operations while also limiting its publicly available
862 information on its web-sites to obstruct potential legal challenges to ODNR's

863 permits for fracking operations.

864 These policies at ODNR are closely related to two larger political trends in Ohio:

865 first, the control that the fracking industry has acquired over Ohio political

866 institutions, most notably the Republican majorities in the Ohio General

867 Assembly, and second, a concerted effort within the Republican-controlled Ohio

868 Supreme Court to limit the effectiveness of Ohio's public records laws and impair

869 that law's original design to deter Ohio's public agencies from the type of

870 activities that ODNR routinely uses today.

871 1.) ODNR's Abuse of Ohio's Public Records Laws:

872 Ohio's public records law, found in Ohio Revised Code ("ORC.") Section 149.43,

873 is a strong law on its face and, prior to the last decade, it was interpreted by Ohio

874 Courts in an equally strong manner. The law's definition for "public records" is

875 very broad and although the law's initial small number of exemptions has been

876 expanded dramatically by the legislature over the past decade, few if any of those

877 exemptions are applicable to environmental records. The law requires that "all

878 public records responsive to the request shall be promptly prepared and made

879 available for inspection to any person" or the agency "shall transmit a copy of a

880 public record to any person" by mail or other form of transmission "within a

881 reasonable period of time after receiving the request.” What constitutes such
882 “reasonable period of time” is not defined in
883 the statutes, but courts have interpreted it to mean “without delay” and “with
884 reasonable speed” considering the facts and circumstances of the request. Under
885 this standard, the Ohio Supreme Court has found that narrow requests not
886 responded to within four business days violates the statute, while requests for
887 voluminous documents or requests involving very significant legal questions may
888 lawfully take significantly more time. It is well established that claims of too
889 much expense, or too much time involved, or too much interference with normal
890 duties cannot be used by the public office to evade the public’s right to inspect or
891 obtain a copy of public records within a reasonable time.

892 I have made over a dozen records requests to ODNR’s Oil & Gas Division over the
893 past five years and have sued it four times under the public records law for its non-
894 compliance. None of those requests have been responded to promptly but have
895 lingered from six to eight weeks or longer. Their system simply seems to have no
896 ability to respond to any request, irrespective of its breadth, any sooner. When I
897 contact ODNR to inquire about the status of my requests, I am told only that there
898 are so many requests that they cannot get to them any quicker with their existing

899 staff. However, the Oil & Gas staff has increased from 44 to 128 between 2011
900 and 2016 during which time their records performance has only deteriorated.

901 Obviously, no serious priority is being given to records requests in that program.

902 Records requests sent to other Divisions at ODNR are dealt with fairly quickly and
903 professionally.

904 In each of my four lawsuits, the state attorneys conceded that ODNR was in
905 violation of the public records law due to their lack of a prompt response and the

906 lawsuit involved only getting the state Attorney General's office to force the

907 records out of the Department. In three of the cases, I received the maximum

908 statutory damages award of \$1,000 for ODNR having violated the Public Records

909 Law. In each case, the fact of violation was immediately conceded by the

910 Attorney General's office which made no effort to defend ODNR's conduct.

911 Based on this experience, it is obvious to me that ODNR is in habitual, chronic

912 violation of Ohio's Public Records Laws and is doing nothing to come into

913 compliance.

914 To compensate for its failures, ODNR is using multiple strategies to put off

915 records requests from citizens. The first is to say that their legal staff must review

916 all requests which is the cause for this delay. However, very few requests for

917 documents involve significant legal issues and this extra step, which seems to have
918 been instituted primarily to prevent the release of politically embarrassing
919 documents, does not justify much delay.

920 Second, and more pernicious, is that, after a lengthy delay, ODNR sends the
921 requester a form letter stating that the request is so vague that it must be rewritten
922 before any response will be given. This reply may be a serious roadblock to
923 citizens with limited background in the legal requirements of the Public Records
924 Law who ODNR puts on a treadmill of constantly rewriting their requests to meet
925 ODNR's never satisfied level of clarity. This was even tried against me once on
926 what had been a very specific request which led to my immediate filing a public
927 records lawsuit. The issue of vagueness was never raised as a defense by the
928 Attorney General's Office and I again received the maximum penalty of \$1,000 for
929 ODNR's violation.

930 Third, I have recently been told from citizens of a third evasion strategy by
931 ODNR. In seeking documents regarding the damage and clean-up made necessary
932 by an unlawful release of fracking chemicals last year, the citizen was told by
933 ODNR that important records regarding the cleanup would not be provided
934 because the fracking company claimed the records were trade secrets. Note that

935 ODNR did not say that it had determined that the trade secret claim was valid, just
936 that the company had simply made the claim. Also, ODNR was not just redacting
937 those portions of the records which the company said were trade secret, but the
938 entire record was withheld leaving the citizen completely in the dark regarding the
939 important issue of the cleanup. The citizen could have filed a public records
940 lawsuit to contest the denial of the record, but that action had the potential of being
941 especially complicated and therefore expensive due to the legal complexity of
942 trade secrecy claims. Hopefully, a legal action contesting this claim will be
943 prosecuted to put limits on this practice, but until one is, ODNR will apparently be
944 using it to frustrate citizens from obtaining important public health information.
945 Earlier I said that the corporate-friendly Ohio Supreme Court has been cutting
946 back on the public record law's power to deter Ohio's government agencies from
947 violating its requirements. When first put in the law two decades ago, the
948 maximum \$1,000 statutory damage penalty was applied by court's on a *per*
949 *document* basis, so that a delayed records request obtaining 5 documents would
950 lead to a \$5,000 award. After several large awards left local governments reeling,
951 the courts cut the award back to a single \$1,000 per records request, irrespective of
952 the number of documents involved, thus reducing the award's deterrent impact

953 significantly.

954 The public record statute's most significant deterrent effect, however, has
955 historically been from the award of attorney's fees against state agencies found to
956 have violated the statute.¹¹ In the first two lawsuits I filed against ODNR, I
957 received attorneys' fees in the amount of \$9,000 and \$2,700 – which gave serious
958 encouragement to ODNR to get its act together on public records. But that all
959 changed in 2014 with the Ohio Supreme Court's *DiFranco v. South Euclid*
960 decision¹² where the Court held that attorney fees could only be awarded if the
961 lawsuit resulted in an actual court order rather than just arising from the fact that a
962 lawsuit had been filed to enforce an agency's violation. This decision gave all state
963 agencies an easy way to circumvent the intent of the public records laws for
964 prompt and complete disclosure by waiting for a suit to be filed and only then
965 providing the records. By providing the records, the underlying lawsuit became
966 “moot” and therefore automatically dismissed without any court order forcing
967 compliance able to be issued. With this one decision, most of the power of the
968 public records law to deter violations was destroyed. Now, citizens can no longer
969 afford to bring suit because of the high cost of an attorney and there is only the
970 \$1,000 fine left to deter violations. As ODNR's actions prove, state agencies seem

971 happy to pay that nominal fine rather than get the staff and process in place to meet
972 the law's intended purposes.

973 Finally, it should be noted that the Ohio Legislature amended the public records
974 system in Ohio in September 2016, in Senate Bill 321 to address growing public
975 complaints about state and local agencies' failures to satisfy the prompt and
976 complete disclosure requirements of the public records law. Rather than deterring
977 these agencies by putting the teeth back into the attorneys' fees provision, the law
978 set up a wholly separate process where citizens could request the Ohio Court of
979 Claims to undertake an informal negotiation process with state agencies to obtain
980 the records without the need for an attorney. Of course, this process is slow and
981 doesn't help at all when time is of the essence. It may help some citizens in
982 certain cases but it won't force ODNR to reform its broken system.

983 There was a time in Ohio, as recently as just 15 years ago, where the Ohio
984 Supreme Court proudly declared that:

985 "As we have repeatedly emphasized, '*When* records are available for public
986 inspection and copying is often as important as *what* records are available.' "

987 Obviously, that priority has been lost in today's Ohio.

988 1.) ODNR's Abuse of Publicly Available Information

989 How quickly public records are produced is obviously important to citizens
990 concerned to know what is happening at the fracking site or injection well down the
991 road and what health and safety issues it may present. But ODNR's deliberate
992 system of delay in providing public records has more insidious purposes than that
993 problem alone because it is part of a system designed to prevent citizens from
994 appealing ODNR actions into the administrative appeals and court systems.

995 ORC 1509.36 establishes the appeals process for all orders and permits issued by
996 ODNR's Oil and Gas Division by providing for their appeal to the Oil & Gas
997 Commission. While this body is appointed by the Governor and is therefore less
998 than trusted by many citizens
999 – especially since its current Chairman is a Cleveland estate lawyer who just so
1000 happens to be the Republican Party Chairman of Cuyahoga County – this is the
1001 only useful pathway to get a case eventually before an actual judge. Just before the
1002 start of the fracking era in 2010, the Ohio legislature even exempted all fracking
1003 production wells from this weak appeals process. But all other permits issued by
1004 ODNR permits are still subject to this appeals process and therefore the possibility
1005 of having the Oil & Gas Chief's orders reviewed and the Chief held accountable.

1006 However, ODNR has avoided this potential with its public records delay system,

1007 its failure to give public notice of these permits, and by strictly limiting what
1008 information it puts on its public web-site. Appeals to the Oil and Gas Commission
1009 must be filed within 30 days of a permit being issued while one of the
1010 Commission's rules provides that an actual copy of the permit "should" be
1011 attached to the appeal. However, ODNR gives no public notice whatsoever of its
1012 issuance of these permits so local citizens do not know when the 30-day period
1013 begins to run except to make repeated public records requests for the permit. Since
1014 ODNR never responds to such requests within 30 days, the right to bring an appeal
1015 is therefore lost by default and the Chief is free of accountability.

1016 Ironically, the only permit that ODNR is now legally required to give public notice
1017 on is the drilling permit for fracking production wells that the Legislature has
1018 already exempted from the appeals process. For these permits, the Legislature
1019 requires ODNR to post them on its web- site within two days after their issuance.
1020 Obviously, ODNR could also post the appealable permits, like those allowing
1021 injection wells to start disposing, in this same manner – but they choose not to do
1022 so. The self-evident reason for this exclusion is that to do so would allow citizens
1023 to appeal them within the 30-day limit. Accordingly, between their contrived
1024 system of not providing any public notice and not posting any permits except for

1025 the unappealable ones and their delay in responding to public records requests until
1026 after the appeals period has run, ODNR has devised the perfect system to avoid
1027 any accountability through appeals to the state's courts.

1028 This pattern has continued in the most recent rule-making by the Oil & Gas
1029 Division in Ohio Administrative Code Section 1501:9-2-02 effective in July 2015.

1030 This rule establishes procedures for reviewing and approving a permit for the well
1031 pad that fracked production wells will be built upon. The rule provides for no
1032 public notice of these permits and ODNR is not posting them on its web-site so
1033 there is again no way that citizens can become aware of when they are issued to
1034 meet the 30 day appeals limit. ODNR has also recently announced that it will be
1035 developing rules governing permits to be issued to potentially hazardous facilities
1036 that store or treat fracking wastes and the smart money is betting on this pattern
1037 being continued there also.

1038 CONCLUSION

1039 In 1992, the United Nations Conference on Environment and Development
1040 adopted the Rio Declaration on Environment and Development setting forth 27
1041 principles to govern human rights for environmental quality. Principle 10 sets forth
1042 the principles governing public participation in environmental decisions. Since the

1043 actions of ODNR testified to above violate every element of Principle 10, it is
1044 worth stating verbatim:

1045 Principle 10 – Rio Declaration on Environment and Development (1992)

1046 Environmental issues are best handled with the participation of all concerned
1047 citizens, at the relevant level. At the national level, each individual shall have
1048 appropriate access to information concerning the environment that is held by public
1049 authorities, including information on hazardous materials and activities in their
1050 communities, and the opportunity to participate in decision-making processes. States
1051 shall facilitate and encourage public awareness and participation by making
1052 information widely available. Effective access to judicial and administrative
1053 proceedings, including redress and remedy, shall be provided.

1054 Also, the U.N. Human Rights Committee that oversees compliance with the
1055 International Covenant on Civil & Political Rights adopted in 1966, has recognized
1056 similar protections for the public's right of access to information in General
1057 Comment 34 addressing Article 19 of the Covenant. The Comment states in
1058 pertinent part: 19. To give effect to the right of access to information, States parties
1059 should proactively put in the public domain Government information of public
1060 interest. States parties should make every effort to ensure easy, prompt, effective

1061 and practical access to such information. States parties should also enact the
1062 necessary procedures, whereby one may gain access to information, such as by
1063 means of freedom of information legislation. The procedures should provide for the
1064 timely processing of requests for information . . .

1065 My testimony establishes that these principles are violated by ODNR.

1066 **Testimony of Jill Antares Hunkler**

1067 My name is Jill Antares Hunkler, and I live in Somerset Township in Belmont
1068 County, Ohio, near the Village of Barnesville's Slope Creek reservoir. Yesterday,
1069 May 12, an event occurred that I feel compelled to share with you at the beginning of
1070 this testimony.

1071 Immediately after returning from a drive to the grocery store, I heard a helicopter
1072 and I thought it must have landed in my yard because it was so loud. When I went
1073 outside to investigate, I found a black helicopter hovering low and very near my
1074 house. I walked into my yard and just stood there for a few minutes watching it. The
1075 helicopter then flew directly beside me and literally right above my trees and
1076 hovered again for several minutes. It then flew to the back of my house, so I walked
1077 onto my deck and stared at it. Finally, after what seemed like an eternity, it flew over
1078 the hill and hovered there for another ten minutes. There is no doubt that whoever

1079 was flying that helicopter was there to intimidate me and to let me know that I am
1080 being watched.

1081 Why would someone be watching me and trying to intimidate me? Could it be
1082 because I have joined a lawsuit against the Bureau of Land Management to stop
1083 fracking in Ohio's only national forest? The Wayne National Forest is rich in natural
1084 and historic treasures that provide essential habitat for many animals, as well as
1085 hunting, fishing and natural recreation for not only local residents but individuals
1086 from many places. I have joined a lawsuit along with the Sierra Club, the Ohio
1087 Environmental Council, the Center for Biological Diversity, and Heartwood.

1088 Or are they also watching me because I have filed a Notice of Intent to sue
1089 MarkWest for significant and ongoing violations of the Clean Air Act and Ohio
1090 Pollution Control Act at the Humphreys compressor station on hill above my
1091 home. This situation is outlined in the following press release:

1092 "First we noticed the odors and had nose, eye, and throat irritation, as well as
1093 headaches. Then the symptoms worsened over time with nausea, vertigo, rashes,
1094 mental confusion, disorientation, numbness, body aches and pains" says Jill Hunkler.
1095 "I began researching the negative effects of compressor station emissions and
1096 became very alarmed. I was introduced to others who had lived near compressor

1097 stations who had suffered similar ailments and became convinced that there was an
1098 emissions problem with the station. I made connections with Fresh Water
1099 Accountability Project, and Earthworks who offered assistance. I also contacted the
1100 Ohio Environmental Protection Agency (Ohio EPA) and voiced my concerns.”

1101 On July 14, 2015, Earthworks, a national non-profit organization, used optical gas
1102 imaging technology (specifically a Forward Looking Infrared, or FLIR, camera) to
1103 film the Humphreys Compressor station. The camera showed gases clearly appearing
1104 as grey plumes above the stacks and moving across the facility fence line, and also
1105 showed venting from the storage tanks. “The Humphreys compressor station is
1106 clearly a significant pollution source in the area and showed some of the most
1107 intense emissions we’ve filmed to date,” said Nadia Steinzor, Eastern Program
1108 Coordinator with Earthworks. “While we were filming, my coworker and I
1109 experienced dizziness and headaches and smelled strong hydrocarbon odors.”

1110 Lea Harper, Director of Fresh Water Accountability Project stated: "When I visited
1111 the Markwest compressor station with Earthworks and the FLIR camera, it was
1112 obvious there were invisible pollutants causing the strong odor. And when I met a
1113 neighbor with health complaints, I had a stark realization - no one is protecting us.
1114 Not the EPA, not the Ohio Department of Natural Resources (ODNR), not our

1115 elected representatives - there's no one looking out for those living next to the
1116 industrialized operations. No one is monitoring for toxic chemicals released into the
1117 air. Without measurements, people don't know what is making them sick, and the
1118 company is off the hook. It's a terrible way of externalizing the high cost of human
1119 health and environmental degradation. I would never have believed it if I didn't see it
1120 for myself."

1121 After receiving resident complaints for more than a year, on May 19, 2016 the Ohio
1122 EPA finally inspected the Compressor Station using a FLIR camera and flame
1123 ionization detector. The FLIR camera confirmed that vapors were being released
1124 from a valve that connects all five storage tanks. Thus, the Vapor Recovery Unit
1125 ("VRU") was not operating in a manner to capture and control volatile organic
1126 compounds ("VOCs") consistent with the permit condition. The U.S. EPA has noted
1127 serious compliance issues with the type of VRU used at Humphreys compressor
1128 station.

1129 Nov. 19, 2016 the Ohio EPA stated "we currently are reviewing the response by the
1130 company and are working with MarkWest to ensure compliance with their permit
1131 terms and conditions. Six months after the violations were issued, the polluting of
1132 the air was still occurring at the Humphreys compressor station.

1133 Storage vessels at natural gas production facilities are known to contain large
1134 quantities of VOCs, other hazardous air pollutants that are known carcinogens, and
1135 methane. MarkWest has continuously failed to comply with the terms of its Permit-
1136 to-install, and the Ohio Air Pollution Control Act by violating emissions limitations
1137 of the Permit and causing a public nuisance by failing to prevent the emissions of
1138 vapors, fumes, hazardous air pollutants, including VOCs, particulate and fugitive
1139 emissions in close proximity to residences, which endangered, and continues to
1140 endanger, the health and safety of the surrounding community and caused, and
1141 continues to cause, property damage to neighboring lands.

1142 The Notice states, "MarkWest's violations of the Clean Air Act, The Ohio Pollution
1143 Control Act and its Permit have injured and will continue to injure the health,
1144 environmental, and aesthetic interests of the Hunkler family and the surrounding
1145 community. These injuries are traceable to MarkWest's violations of "an emission
1146 standard or limitation."

1147 In its operating permit application to the Ohio EPA, MarkWest identified the
1148 potential to emit, among other pollutants, VOCs, and Hazardous Air Pollutants.
1149 Exposure to these and other chemicals related to natural gas production have been
1150 associated with eye, nose, and throat irritation, respiratory problems, and adverse

1151 effects to the nervous system.

1152 Compressor stations are a permanent source of noise, air, and odor pollution for the
1153 surrounding community. The overall operation of the Humphreys Compressor
1154 station emits numerous toxic and other harmful air pollutants, and the operation of
1155 the engines and other equipment at the site, including blowdown events, causes
1156 extreme disturbance in the surrounding areas that is hazardous to human health and
1157 safety. The violations described in the Notice Letter injure, and unless abated, will
1158 continue to injure the health, financial, aesthetic, and recreational interests of the
1159 Hunklers and the surrounding community in general.

1160 For all the reasons just listed, my family and I have been forced to leave our home,
1161 due to the oil and gas industry's pollution and violations of the human right to a
1162 healthy environment.

1163 Maybe I am being watched because recently while on a driving tour of fracking sites,
1164 a traffic control guard for the industry took photos of my license plate and wrote
1165 down the make and color of my vehicle and said they gave the information to the
1166 state. When questioned about this she later said they give the information to the
1167 company. Just shortly after that encounter, a truck pulled in behind me at a gas
1168 station and also took pictures of my license plate. When asked why, he responded

1169 that he did not like what I was doing.

1170 Could it be that I am being watched because for years now I have educated the
1171 public on the hazards of fracking and been instrumental in grassroots organizing,
1172 advocating for a ban on fracking and a focus on renewable energy sources as the
1173 solution for future generations.

1174 I have been experiencing the hazards of fracking and witnessing the path of
1175 destruction and contamination caused by this polluting industry. My family and I
1176 live in close proximity to fracking sites and have experienced negative health
1177 impacts including headaches, asthma-like symptoms, rashes, and insomnia due to the
1178 industry's invasion of my ancestral homeland.

1179 Those of us living in these once peaceful hills are not only dealing with negative
1180 health impacts. We are also experiencing explosions, fires, contamination of streams,
1181 including the death of 70,000 fish, gas leaks that caused lengthy evacuations, air and
1182 noise pollution, unsafe roadways due to industry traffic, springs and well water
1183 contamination, and depletion of our water supplies by Industry withdrawals from our
1184 reservoirs, ponds and streams.

1185 On average it takes eleven million gallons of water to frack one well in Ohio. They
1186 water is toxic after it has been fracked. These are all examples of a violation of the

1187 right to safe drinking water. It is heart breaking to witness the massive deforestation
1188 and habitat destruction, as they haul away beautiful hillsides one truckload at a time
1189 to build the frack pads, pipelines, injection wells, compressor and transfer stations.
1190 Due to the invasiveness of shale development, southeastern Ohio has been described
1191 by many as living in an occupied territory. I have been working continually since the
1192 invasion began to research and share the truth about the hazards of fracking, and to
1193 organize informed local opposition to irresponsible industry development. I have
1194 lived in the Slope Creek area for over 30 years and have enjoyed swimming, fishing,
1195 canoeing and camping on the shores of the reservoir. I decided to build my own
1196 house on the opposite shore of my childhood home, where Slope Creek flows
1197 through the yard. I am grateful for the many peaceful moments in this tranquil and
1198 beautiful landscape with its abundant water, trees and wildlife. I never imagined that
1199 my quiet country way of life would disappear.

1200 I began researching the impacts of shale development and found that: fracking
1201 emissions contain methane, carcinogens, neurotoxins, and VOC's (Volatile Organic
1202 Compounds). I have learned that these emissions hover near the ground and are
1203 known to cause serious health problems. So there is reason for great concern
1204 regarding my family living in this once tranquil, but now threatened valley.

1205 The first warning signs of the shale industry invasion came with the arrival of the
1206 leasing land agents. Area residents formed long lines outside the local high schools
1207 to sign over the mineral rights before educating themselves about the potential
1208 threats involved with the industry. Landowners and farmers, who had been
1209 struggling financially for years, were suddenly being presented with significant
1210 amounts of money that they did not refuse. The industry preached of safe
1211 development, large royalty checks, and independence from foreign oil and gas
1212 supplies.

1213 It took several months before the invasion intensified and the land agents were
1214 replaced with incoming crews of mass destruction. The deforestation, habitat
1215 destruction and the removal of whole hillsides one truckload at a time began. The
1216 transportation of oversized equipment on twisty, hilly country roads made driving
1217 very dangerous for area residents. The fracking infrastructure, including pipelines,
1218 compressor, and transfer stations began developing rapidly. Injection wells for the
1219 radioactive and chemically-laden waste were among the first secretive projects to be
1220 completed and began accepting out-of-state toxic fracking waste. Currently there are
1221 numerous fracking well sites on the hills above Slope Creek Reservoir.

1222 I began researching and presenting the facts to my local and county officials

1223 regarding a radioactive fracking waste, and many other industry-related
1224 contamination issues. Belmont County had entered into a secret contract with
1225 EnerGreen 360 LLC, a company that had been permitted to take fracking drill
1226 cuttings, mix it with coal ash, and use it as fill for an industrial park site one mile
1227 from our Village of Barnesville. A press release written by the Freshwater
1228 Accountability Project alerted me of the project and stated:
1229 Industry insiders and scientists have known for some time that fracking waste can be
1230 radioactive. Drill cuttings, drilling muds and sludge are laden with heavy metals and
1231 chemical agents used to extract gas and oil from deeply-buried underground shale
1232 layers. Other toxic materials such as arsenic and Uranium 238 once buried safely
1233 more than a mile below ground are brought to the surface due to fracking.
1234 After reading this alarming press release, I began organizing a group, Concerned
1235 Barnesville Area Residents (CBAR). We gathered factual evidence and presented it
1236 to local and county officials, initiated a successful petition drive, placed full page
1237 bulletins, wrote numerous editorials outlining the hazards of the project, and
1238 organized a town hall meeting. As a result of the community's voicing of its
1239 opposition to the project, the company withdrew and is not operating in our
1240 county. This was a big victory, showing what concerted, informed community action

1241 can achieve.

1242 In a March 2014, at a Village of Barnesville council meeting, I witnessed a Gulfport
1243 Energy representative presenting contracts to the council. The village had already
1244 agreed to lease the surface and mineral rights to Gulfport. The contracts being
1245 presented to the Village called for the locating of two fracking well pads within 500
1246 feet from the shoreline of Slope Creek Reservoir. The leasing of this land for
1247 fracking adjacent to our drinking water is a violation of the human rights obligations
1248 to water.

1249 As soon as I heard this worrisome news, I urged the Village not to permit these pads
1250 within the Slope Creek Watershed. I continued researching the potential threats to
1251 our drinking water supply. My now respected and powerful group of concerned area
1252 residents began campaigning for the protection of the reservoir and the abandonment
1253 of the fracking wells within the watershed. Peer-reviewed scientific studies
1254 confirming the existence of documented cases of methane migrating thousands of
1255 feet and contaminating water sources due to compromised fracking well bore
1256 integrity were given to local officials. A successful petition drive resulted in 2300
1257 signatures which have been submitted to The Ohio EPA, the Ohio Department of
1258 Natural Resource, Governor Kasich, Gulfport, and the Village requesting that the

1259 company relocate the pads and abandon operations in the Slope Creek Watershed.

1260 When hand delivering the petition, I also included were peer-reviewed scientific
1261 papers documenting and explaining how water supplies have been contaminated in
1262 numerous cases at distances of up to one kilometer (3,280 feet) from the leaking
1263 shale wells.

1264 I read a statement by Dr. Anthony Ingraffea of Cornell University, who conducted
1265 research over many years for the oil and gas industry giant Schlumberger and the
1266 Gas Research Institute. When asked about Gulfport's plan to put frack pads 500 feet
1267 from the shoreline of Slope Creek Reservoir, Dr. Ingraffea said that: "My principal
1268 concern would be the loss of wellbore integrity. If they are going to put two pads
1269 within 500 feet from the shoreline of that reservoir, there will be multiple wells,
1270 maybe as many as 12, on each pad. The possibility for one or more of these wells
1271 leaking due to faulty casing and/or faulty cement is very high... gas can migrate
1272 from the leaking wells many thousands of feet. So, 500 feet is nothing, not even
1273 close to being a 'safe' distance away."

1274 After we received a response from the Ohio Department of Natural Resources
1275 Director James Zehringer regarding this petition, I wrote to him, "How can there be
1276 confidence in your statement that "ODNR is committed to the protection of all

1277 Ohioans and our environment in your regulation of the oil and gas industry” when
1278 you admit that you are only now in the process of finalizing horizontal well site
1279 construction rules?

1280 To date there are 1,500 wells drilled in Ohio. Due diligence would have required
1281 these rules to be in place before a single well was drilled. According to our research,
1282 less than 50% of the wells in Belmont County have been inspected, as no inspection
1283 reports were provided in our public records requests. Your statement that “there
1284 have been no incidents of stray gas migration” cannot be taken seriously if the wells
1285 have never been inspected.

1286 **Testimony of Heather Cantino**

1287 Among human rights set forth by the Global Network for the Study of Human Rights
1288 and the Environment’s Declaration on Human Rights and Climate Change is that
1289 “All human beings, *animals and living systems* have the right to a secure, healthy
1290 and ecologically sound Earth system...” Furthermore, the Declaration states, “All
1291 human beings, *animals and living systems* have the right to the highest attainable
1292 standard of health, free from environmental pollution, degradation and harmful
1293 emissions and to be free from dangerous anthropogenic interference with the climate
1294 system...”

1295 This climate stability depends on, among other things:

1296 1) the protection of intact mature forests, whose trees, soils, and water provide

1297 massive carbon sequestration and climate stabilization,

1298 2) and keeping public fossil fuels in the ground.

1299 Due to the vast holdings of public lands and implications of opening more of them to

1300 extraction, federal lands and their forests play a critical role in this central human

1301 rights issue. These are also the only forests that the public can theoretically protect,

1302 since they belong to the public and can be subject, more than any private forests, to

1303 governmental protections. Yet mature and old growth forests are increasingly rare

1304 and threatened by government mismanagement and commercial exploitation. This is

1305 especially true in Ohio where public lands are in the bottom 6% of states, per capita,

1306 where state-owned forests can be clear-cut at the will of the Chief of the Division of

1307 Forestry, and where even state parks have been opened to fracking. (Ohio HB 133,

1308 2011)

1309 The most recent Intergovernmental Panel on Climate Change (IPCC) reports endorse

1310 a global carbon budget in which 67% of the world's remaining fossil fuels must stay

1311 in the ground. Other scientists say closer to 80% must not be extracted to avoid

1312 catastrophic climate change. 23% of total U.S. climate emissions are the result of

1313 burning fossil fuels from public lands and waters.

1314 Oil and gas leases generally run ten years and generally renew automatically, which

1315 means that corporate contracts rather than science govern U.S. policy at a time of a

1316 rapidly closing window in which to reverse climate devastation. This is a far cry

1317 from the role that corporations were allowed to play under early American law,

1318 when they could be abolished if they did not serve the public good.

1319 The National Environmental Policy Act (NEPA), “our basic national charter for

1320 protection of the environment,” requires agencies to undertake thorough, site-

1321 specific environmental analysis, using up-to-date science, prior to any “irretrievable

1322 commitment of resources.” The primary tool is an Environmental Impact Statement

1323 (EIS), which must be prepared when impacts may be significant and, according to

1324 NEPA, especially when effects are likely to be highly controversial, highly uncertain

1325 or involve unique or unknown risks, significantly impact health and safety, or impact

1326 endangered or threatened species’ habitat. Courts have ruled that federal agencies

1327 must include climate costs and benefits including effects on the economy,

1328 environment, and public health.

1329 In spite of federal commitments to curb emissions and consider climate impacts, the

1330 U.S. government continues to behave as if NO fossil fuels are off-limits.

1331 Specifically, Ohio's *only* National Forest, the Wayne, has conducted *no* NEPA-based
1332 evaluation of fracking impacts on climate or on anything else. Its most recent Forest
1333 Plan, from 2006, did not consider fracking. The Bureau of Land Management
1334 (BLM), which, *given US. Forest Service consent*, manages leasing of federal
1335 minerals under the National Forest, has *never* done a site-specific EIS or considered
1336 climate impacts of fracking the Wayne with up-to-date science as required before
1337 leasing. Nevertheless, the Wayne gave consent to the BLM to lease, and in spite of
1338 dozens of substantive formal comments by citizens and legal teams protesting its
1339 shoddy and illegal process, the BLM conducted two online fracking auctions of
1340 Wayne land this past December and March. All 40,000 acres of federal minerals in
1341 the Marietta Unit of the Wayne are expected to be auctioned in the coming year or
1342 two.

1343 The USFS consent that enabled these sales took place in spite of five years of
1344 widespread opposition and extensive formal appeals based on legal, scientific, and
1345 economic arguments by local citizens, government officials, academics, business
1346 owners, tourism representatives, a university president, mayors, a City Council and
1347 County Commission, and legal teams representing grassroots, regional, and national
1348 environmental organizations. Thousands of petition signatures, hundreds of letters

1349 and dozens of meetings with officials called for an EIS or a ban on fracking. Citizens
1350 also provided dozens of studies and more citations from the now substantial
1351 scientific literature on fracking's impacts on water, air, soil, wildlife, ecosystems,
1352 public health, greenhouse emissions, and local economies. USFS officials' refusal to
1353 authorize a new Forest Plan or a supplemental EIS make the federal government's
1354 consent to lease both illegal and a clear abuse of human rights.

1355 BLM prepared neither an EIS nor even the less rigorous site-specific Environmental
1356 Assessment (EA) before leasing. The broad programmatic EA that the BLM did do
1357 was so shoddy and lacking in any rigorous science that its Finding of No Significant
1358 Impact (FONSI) is also just a travesty of justice. The BLM EA and FONSI violate
1359 NEPA for the following reasons, among many. First, climate impacts:

1360 **1. (The EA Arbitrarily Underestimates Methane Emissions)**

1361 The EA assumed that methane is only 25 times as potent a greenhouse gas as carbon
1362 dioxide (CO₂) contrary to IPCC's recent updates of methane's 100-year global
1363 warming potential (GWP) to 36 and, more significantly, its 20-year GWP to **84**.

1364 **2. (Social costs of carbon were not considered)**

1365 The BLM also did no analysis of the social costs of carbon, therefore effectively
1366 assuming a price of carbon of \$0. This is in contrast to the EA's quantifying

1367 supposed economic benefits of extraction (without any consideration of public
1368 costs). Thus our government is misleading the public on the costs of oil and gas
1369 production at a time when such deception is extremely dangerous.

1370 **3. BLM Failed to Take a Hard Look at Impacts of Opening Up Private**

1371 **Minerals**

1372 By opening up federal minerals to drilling, adjacent private minerals will be of
1373 significantly more interest to fracking companies, especially given the patchwork of
1374 federal and private ownership in the Wayne, since companies will consider it cost
1375 effective to invest in the larger projects. If the Wayne didn't lease, fracking would be
1376 much less likely to occur on adjacent private land. BLM did not assess this situation
1377 and its significant impacts, including total land degradation, water and air pollution,
1378 climate implications, habitat loss, and disturbance to wildlife on both Wayne and
1379 adjacent land.

1380 **4. BLM did not do NEPA-mandated assessments of cumulative and indirect** 1381 **impacts of leasing.**

1382 Extensive lifecycle methane leakage as well as CO₂ emissions from oil and gas
1383 operations effectively make these fuels worse than coal for climate, in part due to
1384 fuel-switching caused by investments, subsidizations that distort real costs, and

1385 industry-fueled misinformation about comparative emissions of coal vs. gas.

1386 Emissions during extraction, transportation (including compressor station processes),
1387 use, and waste “disposal” have been widely under-reported. Pipeline build-out and
1388 its destructive impacts, as well as the permitting of liquefied natural gas facilities,
1389 which promote the increasing commitment of gas for export all mean that fracking
1390 here dis-incentivizes clean energy and conservation worldwide. Given the vast
1391 supplies of oil and gas controlled by the federal government and its power over
1392 infrastructure permitting, our government’s abuse of the law and its denial of science
1393 and public welfare are resulting in human rights abuses of global proportions.

1394 Climate impacts aren’t the only human rights violations inflicted by these federal
1395 agencies by opening the Wayne to fracking. In addition to ignoring climate impacts,
1396 USFS and BLM have failed to assess impacts to threatened and endangered species,
1397 including the Indiana bat, Northern long-eared bat, and five species of threatened or
1398 endangered mussels, as required by NEPA

1399 Lack of evaluation of impacts on bats is a particularly egregious violation of federal
1400 law and human rights, given the role of bats in ecosystem stability, insect control,
1401 and agricultural sustainability and the well documented and widespread plummeting
1402 populations due to white nose syndrome, pesticide use, and habitat destruction. The

1403 BLM EA has only three sentences on this endangered species and outrageously
1404 completely neglects to mention white-nosed syndrome (WNS), a grave threat to
1405 Indiana bat survival.

1406 BLM's analysis of impacts on the northern long-eared bat is similarly inadequate
1407 and illegal. My written testimony goes into a bit of detail on both species.

1408 **BLM also failed to assess impacts of water withdrawals, surface disturbance,**
1409 **deforestation, air emissions, toxic spills, industrialization, and waste storage and**
1410 **disposal on soil, vegetation, wildlife and habitat or human health and safety, let**
1411 **alone on recreation, tourism or sustainable agriculture .** BLM's conclusion that
1412 impacts won't occur is not accompanied by any supporting data, studies, or scientific
1413 evidence.

1414 Ohio's lax regulations are also at issue because Ohio manages permitting and
1415 oversight of drilling; fracking infrastructure, including compression stations and
1416 injection wells; so-called solid waste disposal; and transportation. No science or
1417 meaningful public input governs permitting; regulations are minimal, even by
1418 industry standards; rules have not been written on many procedures; and oversight is
1419 shamefully inadequate. Unlimited and unmonitored air emissions, use of toxic
1420 drilling fluids even through aquifers, lack of geological and hydrologic evaluations

1421 or restrictions are all okay in Ohio, where earthquakes, explosions, fish kills, and
1422 leaks and spills from tankers, pipelines, drilling sites, and injection facilities abound.
1423 Fines are rarely imposed, and negligent operators often continue operations no
1424 matter how much pollution or disasters they cause.

1425 Our federal and state governments are threatening our forests, our climate, our air
1426 and water, public and environmental health, and our local economies by their illegal
1427 and immoral actions, a clear violation of our human rights.

1428 **Testimony by Christine Hughes** Fracking and our Food System

1429 The fracking industry forces new threats and unacceptable risks onto businesses that
1430 produce and rely on local food. Uncertainty about the safety of food grown close to
1431 fracking activity influences consumer behavior, and reduces viable farmland in
1432 Ohio.

1433 My bakery and café are built upon the strength of Athens' local food economy. A
1434 vibrant local food culture has grown over the last few decades, with over 160 farms,
1435 food manufacturers, breweries, markets, and restaurants promoting local food, &
1436 driving business to our region. Our local suppliers are committed to chemical-free
1437 agricultural practices, and require uncontaminated air and water. Decades of work
1438 by local agencies and their partners to clean up old coal-mined areas has increased

1439 the acreage of usable farmland with clean water in our area.

1440 The recent unconstrained threat of shale drilling and its waste has made our region
1441 and its local food-based businesses vulnerable. Seven years ago, when the fracking
1442 industry began looking to Ohio for drilling and especially frack waste dumping,
1443 small business owners at first were quiet about their concerns—we didn't want to
1444 lose customers over the issue. But now we know: local businesses are harmed by the
1445 fracking industry. If fracking activity, including waste transport and storage,
1446 contaminates even one of the crucial links in our local food economy, Ohio local
1447 food businesses will be tainted by association.

1448 Earthquakes: In 2013, we were baking in Della Zona and felt an earthquake—very
1449 unusual for this area—I thought it was a delivery truck bumping into our wood-fired
1450 oven. The earthquake may have been triggered by nearby frack waste injection well
1451 activity. We have since bought earthquake insurance for our business.

1452 Damage to crops and livestock: In 2014, the Monroe County fracking fire that killed
1453 70,000 fish, frogs, and salamanders were killed, frack industry chemicals were found
1454 5 miles downstream from the explosion. How many farms were affected? And in
1455 2015, in Vienna Ohio a frack waste injection well leaked waste into nearby ponds,
1456 killing wildlife and affecting a nearby 50 acre farm. There are at least 10 farms

1457 within 5 miles of that site. The 2012 Bamberger and Oswald study concludes-

1458 “exposure to drilling operations strongly affects the health of humans, companion

1459 animals, livestock, horses, and wildlife”.

1460 Compromised food safety: That same study documented cases where food-producing

1461 animals exposed to chemical contaminants from the fracking industry have not been

1462 tested before entering the food system. Farms in areas testing positive for air or

1463 water contamination from fracking are still producing dairy and meat for human

1464 consumption, without any testing of the animals or products. These chemicals could

1465 appear in milk and meat products made from these animals. Ranchers are not

1466 required to prove their livestock are free from fracking contaminants before they’re

1467 sold, and USDA inspectors are not looking for them. Denial of information leads to

1468 violation of the right to consume non-contaminated food products.

1469 Climate destabilization’s effect on agriculture: Ohio organic grass pastured beef

1470 farmer Mardy Townsend recently told me: “Climate change is just kicking my butt,

1471 and I’m not sure if I can stay in business if this crazy weather keeps happening, and

1472 fracking is just adding to the problem.”

1473 Devaluation of farm property: Gas development can lower land and property values,

1474 making resale difficult, and leave farmers “stuck” with contaminated land that

1475 cannot be farmed. I toured Mick Lubber's organic Bluebird Farm in Harrison County
1476 last summer. He's been farming there for 37 years, and his land is now surrounded
1477 by fracking rigs and compressor stations. Several pipeline companies have tried to
1478 go through his main production field, and though he has managed to fend them off,
1479 they've cut down acres of woods right next to his crops, on his property line, and
1480 located several pipelines there. The noise, smells, and dust from constant industrial
1481 activity has destroyed his enjoyment of his property, and if a pipeline is allowed
1482 across his land, it will eliminate acres of rich, productive soil he has worked almost 4
1483 decades to create.

1484 Farm property damage: OEFFA dairy producer James Yoder, who sells his Jersey
1485 milk to Horizon, is facing the threat of two pipelines crossing his pasture. James is
1486 working very hard to make sure he can stay in business as a fourth-generation farmer
1487 on the land with his wife and two young children. OEFFA has been advocating on
1488 behalf of James since 2015, informing the Federal Energy Regulatory Commission
1489 that organic farmers like James should be protected from damaging pipelines. James
1490 is concerned he could lose his organic certification. Over 70,000 miles of pipeline
1491 for oil and gas are proposed in Ohio, to move fracked oil and gas away. Industrial
1492 fracking activity is already close to 11 percent of Ohio's organic farmland, and

1493 planned infrastructure will soon be on or adjacent to over 30 percent of Ohio's
1494 organic farms.

1495 Deforestation: A second-generation sustainable orchardist in Morgan county, who
1496 planned to pass the land and business on to the third generation, was forced to lose
1497 acres of his pine forest, a windbreak for the delicate fruit blossoms, to make way for
1498 a high-pressure gas pipeline through his property. Another young farmer eager to
1499 grow her business is dismayed that the Wayne National Forest is open for fracking
1500 and the deforestation that it requires, for she chose land adjacent to the forest
1501 specifically to protect her organic acreage.

1502 Devaluation of organic certification: In Ohio, which has over 700 certified organic
1503 farms, with nearly 57,000 acres of certified organic land: 103 organic farms are
1504 located within 3 miles of a fracking well, and 96 organic farms are within 3 miles of
1505 a Class II injection well. If it is a human right to have access to clean, safe food,
1506 what happens to that right when farmers have no information about what chemicals
1507 their soil and water are being exposed to, and how this exposure affects the health
1508 and safety of the food they are raising? Spills from fracking infrastructure can
1509 particularly jeopardize organic farmers, who may lose their certification and suffer
1510 direct economic harm due to soil or water contamination from prohibited substances.

1511 Water pollution: Many Ohio rural farm properties rely on well water for drinking
1512 and irrigation.

1513 In NY, rural properties are protected from fracking because NY Dept of Health
1514 determined: “The current scientific info (on fracking) is insufficient. Furthermore, it
1515 is clear from existing literature and experience that HVHF activity has resulted in
1516 environmental impacts that are potentially adverse to public health.” Ohio farmers
1517 and food consumers deserve the same protections.

1518 Livestock and wildlife are attracted to the salty taste of fracking fluids and waste
1519 water. Animal poisoning can result in death or loss of normal reproductive function,
1520 still births, birth defects, and other health problems. Fracking requires up to 300
1521 times more water than conventional hydrofracturing. Each well can be fracked up to
1522 18 times, using millions of gallons of water each time. Waste water that contains
1523 chemicals used in the fracking process, as well as naturally occurring materials such
1524 as heavy metals and toxic gases, which return from the well, can contaminate ground
1525 and surface water supplies through underground fissures, surface spills, and
1526 blowouts. Ohio Farmers Union, Ohio Sustainable Business Council, and Ohio
1527 Ecological Food and Farming Association have all called for an end to the use of
1528 Class II injection wells for frack waste.

1529 Water scarcity and water price inflation: In farming regions where water is scarce,
1530 municipalities have been selling fresh water to drillers rather than farmers, when
1531 they can get a higher price. The millions of gallons of water used for fracking is said
1532 to be permanently removed from the hydrological cycle, increasing water scarcity.
1533 In Central Valley, California, however, waste water from fracking is then processed
1534 and sold to farms for irrigation....even organic farms.

1535 Soil pollution: A Colorado State scientist stated that “the oil and gas boom is a death
1536 sentence for the soil”. No State or Federal agency has assessed the impact of the
1537 fracking boom on soil. In addition to the chemicals used during the fracking process,
1538 waste water returned to the surface can contain radioactive materials, including
1539 strontium, uranium, and radon; and heavy metals which can contaminate the soil
1540 through spills, leaks, or during venting and flaring. Heavy metals such as lead,
1541 mercury, cadmium, chromium, barium, and arsenic have been found in soils near gas
1542 sites.

1543 Soil degradation: Abundant healthy soil is vital for productive farming. Fracking
1544 creates significant disturbance to the land, taking acres of farmland out of production
1545 capability. Well pads can be four acres or more. Roads are built to move the trucks
1546 needed to deliver water, sand, equipment, and to remove waste water. A typical well

1547 pad with seven wells could result in 13,000 round trips on local roads. Additional
1548 roads and pipelines to transport the gas may also be built. In addition to the
1549 degradation of farmland in Ohio, degradation of land in the Wayne National Forest
1550 from fracking may destroy historical evidence of indigenous food cultures, such as
1551 those studied by the Archaeology department and Food Studies undergraduates at
1552 Ohio University.

1553 Air pollution: Many chemicals used in the fracking process are hazardous air
1554 pollutants, and fracking is a highly industrial process that increases ground level
1555 ozone. Ozone damages plants by inhibiting photosynthesis and root development.

1556 Soybeans—Ohio’s largest commercial crop—are particularly susceptible to yield
1557 loss caused by ozone. Other ozone sensitive crops include beans, spinach, tomato,
1558 alfalfa, and pasture. Stunted roots and smaller plants mean a reduction in yield for
1559 the farmer. In Ohio, regulations for well-siting and gas flaring for farming areas are
1560 weaker than for urban areas.

1561 Noise and light pollution: Light and noise pollution from fracking wells can increase
1562 stress on livestock. A dairy farmer from Harrison County who used to supply my
1563 restaurant with cheese reported to me that all her cows only graze at the far fence
1564 line of her pasture, the farthest they can get from the industrial activity that now

1565 surrounds the farm. She has been in litigation with the pipeline companies that now
1566 surround her pasture, and cannot speak to me about the situation, but she no longer
1567 sells her delicious cheddar, which we used to feature in our menu and our market.

1568 Right to healthy occupational conditions: Farmers near fracking infrastructure or
1569 activity lack necessary information on specific chemical exposures—info cannot be
1570 obtained due to the lack of testing, lack of full disclosure, and industry’s use of non-
1571 disclosure agreements. Farmers in shale regions across the country have documented
1572 physical and mental health impairments, loss of livestock, and damaged crops due to
1573 exposure to polluted air and water. The stress of having an injection well take in
1574 truckload after truckload of hazardous frack waste right next to their organic farm in
1575 Athens County caused one of our suppliers to sell off all their livestock and shut
1576 down for good. They were unable to stay and grow healthy crops in what they now
1577 see as an industrial waste zone. My friend who operates an organic beef ranch in
1578 Ashtabula county is now downstream from 2 injection well facilities. She worries
1579 what the long-term effects of the injection activity will be on her water and land. The
1580 fracking industry often calls for fewer regulations, to preserve “stable market
1581 conditions, and a predictable business environment.” But look at what the industry
1582 has done to destabilize and create massive uncertainty for our small businesses and

1583 local economies. After building businesses like family farms and local food
1584 restaurants, we now live with the constant threat of new frack waste facilities in our
1585 communities, pipelines across our farmland, industry induced earthquakes, and loss
1586 of income from tourism.

1587 Right to participate in decision making process: Displacement by the industry is
1588 denying farmers their source of nutrition and breaking their symbiotic relationship
1589 with their lands. Is it acceptable that a farmer's right to his chosen livelihood—
1590 organic farming in a clean, peaceful environment—can be violated if an oil and gas
1591 company wants to locate its infrastructure there?

1592 Fracking and all it entails, including contamination of our land, water, and
1593 ecosystem, threatens our region's food security. As a testament to the overwhelming
1594 citizen support for the right to clean local food, may I present this bank calendar,
1595 distributed widely by one of our region's oldest banks, full of pictures of local food
1596 and beverage businesses. December features a photo of the Food Not Fracking
1597 sticker on the front door of a local food shop. Clearly, the right to farm and to enjoy
1598 safe food must be protected here and everywhere.

1599 Dozens of local businesses have come together to protect our community. We are
1600 supporting: air pollution testing, water monitoring, and all local efforts to keep toxic

1601 frack waste out. We're working together with local government to transition our
1602 community to a clean energy economy. Solutions to food and energy security need
1603 to come from fair policies that preserve our well-being, not put it at risk. We must
1604 be allowed to develop our economy in ways that benefit our own communities now,
1605 and going forward.

1606 **Testimony of Elaine Tanner**

1607 Pipelines are a continuous threat placing hardships upon many impacted
1608 communities. The many parts to constructing a pipeline starts long before the line
1609 actually goes into production. Some stories never end as the threat of living next to
1610 an explosive pipeline will never go away.

1611 The reason I am here today is to express my deepest concerns about the extensive
1612 environmental harm caused by the construction and operation of these massive
1613 pipelines. As a citizen it is important to know your rights and insist upon these rights
1614 being in place to protect your family and your environment. Understand the added
1615 burden of traffic, dust and at times twenty-four construction plays a toll on people
1616 living in the path of these pipelines. The day the land agent walked into these lives
1617 things were not as they appear. The trespassing and invasion of life changed for
1618 these families. The company's misrepresented themselves and broke agreements

1619 from the very beginning. It is your right to a safe and healthy environment free and
1620 clear of all things that interfere with this right. It is clear that living in areas
1621 impacted by fracking and the accompanying infrastructure will compromise your
1622 quality of life as these operations destroy our lands, water and the very air we
1623 breathe.

1624 As an organizer I often hear stories from those living in or near a frack pad or
1625 injection well. The concern I would like to address today deals with pipelines.

1626 The Rover pipeline, owned by Energy Transfer Partners, is a new interstate fracked
1627 gas pipeline system that will transport 3.25 billion cubic feet per day of natural gas
1628 through approximately 713 miles of 24-inch, 30-inch, 36-inch and 42-inch diameter
1629 underground pipeline running through Pennsylvania, West Virginia, Ohio and
1630 Michigan. To allow these pipelines to flow just outside our children's bedroom
1631 windows is a crime against humanity. To knowingly poison the water of our future
1632 is a crime against the environment. We all deserve clean water and the right to
1633 protect that water at any cost.

1634 It is not too much to ask that this and future gas pipeline construction across Ohio be
1635 stopped as supported by other states in the path of Rover. In early April of this year
1636 2 million gallons of drilling mud was dumped onto our wetlands as Energy Transfer

1637 Partners fail to respond to a malfunction of equipment. For 3 weeks this drilling
1638 fluid used to lubricate the drill suffered a 100% loss and no one attempted to stop the
1639 flow as the drilling continued under the Tuscarawas River. For the month of May
1640 there have been 14 so far.

1641 In the United States laws have been put in place to protect these rights, unfortunately
1642 big business has taken over the voice in the people's house and our system has
1643 failed. We reach out to the United Nations for help to address these wrongs and
1644 insist upon international human rights laws to apply. My statements will address
1645 Rover and those in the path of one of the largest pipelines under construction in the
1646 United States. Land agents started knocking on doors three years ago demanding
1647 that property owners sign leases or eminent domain would apply and they would
1648 take control of their land, lay the pipeline and there would be nothing we could do
1649 about. Often property owners resist, many gave up the fight and signed these unfair
1650 and one sided leases without representation.

1651 STATEMENT: In the path of Rover land owner Sherry Miller. Rover does what they
1652 want when they want and destroys everything in its path ... Environment, animals,
1653 people, homes, schools...nothing gets in their way. If I don't get out of here soon I'm
1654 gonna snap....I can't do it much longer."

1655 This heavy drilling mud is a bentonite slurry with other slickening chemicals
1656 added. Wetlands the size of 8 and a half football fields sit in two feed of this slurry.
1657 The only way to remove this slurry is to suck it up and suffer the loss. It will take
1658 decades if ever for Ohio's most diverse wetlands to ever recover. To allow these
1659 pipelines to continue without further investigation on the drilling methods and failure
1660 of Energy Transfer Partners to respond to the Ohio EPA is a wrong against the basic
1661 rights that have been violated here. We all have the right to safe and abundant
1662 supply of clean water. The Ohio River is known as one of the dirtiest rivers in the
1663 county. To allow the installation of these pipelines that clearly have been allowed to
1664 run out of control and could potentially destroy our drinking water for millions of
1665 people downstream. This is a clear case of poor planning, neglect, and disregard for
1666 communities and the environment along the pipeline route. This incident went on
1667 for 3 weeks labeled as inadvertent return. This is just the largest slurry return, there
1668 were a total of 16 spills reported in Ohio since the construction began back in
1669 February. These inadvertent returns have occurred in Belmont, Wood, Tuscarawas,
1670 Stark and Richland counties along Rover's path. At this time Energy Transfer
1671 Partners are attacking the Ohio EPA for fining the company \$430 thousand
1672 dollars. Said Ohio did not have the right to impose fines.

1673 They are to double the 66 rigs in operation in Ohio, West Virginia and
1674 Pennsylvania. The word is out for 115 rigs in operation by 2019. An alternative to
1675 production would be to move some of the store gas around using established and
1676 new lateral and distribution lines as they build these operations along the Marcellus
1677 and Utica shale beds with some talk exploration of the Rogersville shale. If we are
1678 truly in a state to protect our people's health and safety, there will be no need for
1679 these additional pipelines purely for profit and leaving the people behind as
1680 collateral damage.

1681 This prepared map isolates the Wayne National Forest with the yellow dots on the
1682 right representing the ports identified just recently by the Army Corp as discharge
1683 into our drinking water supply. The industry plans to increase discharges thousands
1684 of times over what is currently contributing.

1685 Most important to consider is the amount of methane that has surpassed the levels
1686 we need to maintain a level that will support life as we continue to see the impacts
1687 following these extreme extractive industries. The size of the purple dots indicates
1688 the current identification of Co2 emissions. We are losing our ability to support life
1689 on our planet and our current administration supports these industries and allows
1690 unacceptable levels of these gases into our atmosphere. We must also look at old

1691 and abandoned wells still uncapped scattered across our lands.

1692 Seems like every day we hear of a pipeline leaking or an explosion at some

1693 wellhead. Maybe tomorrow it will be a train derails or a barge goes ashore

1694 contaminating the local water supply barely reported on the local news. This

1695 movement will require more people on the frontlines taking the lead as we redirect

1696 an entire industry rooted deep in the pockets of big investors and political favors."

1697 Correction to my testimony. The jurors ask how many Rover pipelines would fit on

1698 the back of a semi-truck. I mistakenly said six or seven. This would be true for the

1699 smaller pipeline however the forty-two-inch Rover sections a truck would only be

1700 able to transport two and at the most on larger trucks three sections.

1701 **Testimony of John Howard**

1702 **Human Rights – are they being violated by fracking? Is fracking an injustice?**

1703 What is the relation between rights and democracy? The idea of human rights is

1704 historically relatively recent. I have heard it said that there was no word in European

1705 languages for the idea of human rights as we know them today until the 1400's.

1706 Previously the people who had rights were kings. The divine right of monarchs was

1707 the order of the day. What the rest of the people had were duties. Moral expectations

1708 arising either from religious or philosophical traditions impose duties. With the

1709 Renaissance and the Enlightenment thinking began to change. Although the idea of
1710 democracy had arisen in the early Greek and Roman periods, and had some limited
1711 manifestation in practice, by the 1700's a new manifestation of democracy was
1712 emerging, namely the American experiment.

1713 The American experiment turned thinking upside down, or perhaps we should say
1714 that it turned it right side up. No longer were monarchs to be rulers of the people, but
1715 people were to be rulers of those who represented them in government. The idea that
1716 people had natural rights, inalienable rights, became translated into political reality –
1717 through the Bill of Rights in the Constitution. Natural (inalienable) rights,
1718 recognized earlier by philosophers Thomas Hobbes, John Locke and others, became
1719 political rights. Thomas Paine argued that such natural rights should not become
1720 political rights, because political rights can be taken away by changing governments.
1721 Natural rights are inalienable and can never be taken away. But rights vanish under
1722 tyranny; they vanish under poverty; they vanish in the chaos of war.

1723 The American experiment was far from perfect in terms of rights. Initially rights
1724 were effectively limited to property-owning, white males. The American story has
1725 been a continuous struggle toward equality for all people, a struggle for rights to be
1726 recognized in law, political rights like the end of slavery, of women's suffrage, and

1727 of equal protection of the law, and economic rights like Social Security, the GI Bill,
1728 and Medicare and Medicaid. Just as the recognition of these rights were new, new
1729 realities in today's world demand consideration of newly defined rights.

1730 What is required to protect rights?

1731 To protect against loss of rights through tyranny, elections must be fair and
1732 free, not bought or otherwise manipulated;

1733 to protect against the loss of rights through poverty, governments must
1734 counteract the natural tendency for wealth and power to become concentrated
1735 into fewer and fewer hands;

1736 to protect against the loss of rights through war, governments must pursue
1737 policies that look beyond fear.

1738 The 1948 Declaration of Universal Human Rights by the UN seemed like a major
1739 step forward, a global agreement that natural human rights exist and should be
1740 recognized and protected politically. The reality on the ground is political, and many
1741 remain deprived of rights, even of the most basic of rights, the "right to life, liberty
1742 and security of person" (Article 3). The Declaration articulates the responsibility of
1743 governments to protect rights.

1744 The 1948 Declaration of Human Rights says nothing about environmental rights. But

1745 the world has changed since 1948. The threats to life, liberty and security of persons
1746 posed by environmental changes have become obvious. We see threats to our lives
1747 and to our security of persons from the poisoning of air we breathe, poisoning of the
1748 water we use for drinking and bathing, and poisoning of the soils which grow our
1749 food. We have seen the chaos and human suffering of mass migrations arising from
1750 war and from poverty. The rising seas from global warming will produce still more.

1751 A right is an entitlement, but to what extent does a right require responsibility? Are
1752 we really entitled to anything we don't work for? The idea of fairness, that is to say,
1753 justice, can be interpreted in two ways. Fairness can mean we get what we deserve,
1754 or it can mean we all get something, regardless of how deserving we are. There are
1755 roles for both of these approaches, but they are sometimes in competition with one
1756 another. Are we entitled to healthcare no matter how we treat our bodies? Are we
1757 entitled to unemployment compensation, whether we are really looking for
1758 employment or not? How much healthcare, how much unemployment compensation
1759 are difficult issues with no easy answers. Politically they require negotiation and
1760 compromise. Nonetheless there are basic rights to which all are entitled, regardless
1761 of how deserving they may or may not seem. Which rights fall under that category
1762 and how they are implemented will differ between cultures. The effects of climate

1763 change, however, will be profound and will affect all. Developed countries have
1764 contributed more to global warming than less developed countries, and have the
1765 greatest responsibilities to reduce their contributions to the problem.

1766 Does fracking violate our rights?

1767 In his essay, On Liberty, published in 1859, John Stuart Mill put forward the “harm
1768 principle,” stating that “the only purpose for which power can be rightfully exercised
1769 over any member of a civilized community, against his will, is to prevent harm to
1770 others.” It is not sufficient to argue that prohibiting some behavior or requiring some
1771 behavior is good for someone; to exercise that power requires us to show harm to
1772 others.

1773 I think the testimony today has shown beyond a shadow of a doubt that fracking and
1774 our dependence upon fossil fuels in general is doing harm now and, if continued,
1775 will do much greater harm in the future through contamination of water supplies, air
1776 pollution and global warming.

1777 How do we protect our rights to clean air, water and soils? Shall the extraction and
1778 use of fossil fuels be reduced by state and/or federal regulations, or by prohibition,
1779 community by community? No one is currently arguing for immediate prohibition of
1780 the extraction and use of all fossil fuels. Such a step would do great harm. How then

1781 shall we reduce the use of fossil fuels toward zero to avoid the great harm global
1782 warming is, and will be, causing to life, liberty and security of persons?

1783 It would be nice to think that voluntary actions and economic incentives will be
1784 sufficient. These will be important, but too many short term economic incentives
1785 work the wrong way. Regulation and prohibition will also be necessary. Too often
1786 regulation fails because regulatory policies are unduly influenced by those who
1787 profit from the activity being regulated. This is a failure of democracy itself,
1788 resulting from elections which aren't free and fair, elections which are bought or
1789 otherwise manipulated. Nonetheless, pressure must be brought to bear on regulatory
1790 agencies to respect the rights of local citizens. The right to life itself must mean the
1791 right to a healthy life, free of human-produced toxins which produce sickness and
1792 death.

1793 Local communities must also be able to say "no" to commercial activities which
1794 violate their rights. From the beginning human rights have been intended for
1795 humans, for real people. The extension of human rights to corporations is an
1796 abomination. It eviscerates democracy. It gives profit-driven corporations, already
1797 laden with the power of concentrated wealth through limited liability, overwhelming
1798 legal power, power which makes a mockery of the democratic ideal that people rule.

1799 It leaves people powerless to resist corporate predation of their communities. It must
1800 be reversed. Corporations are legitimate and important parts of our social structure,
1801 but corporate interests must not dictate public policy; public policy must serve public
1802 interests. It must serve the people.

1803 In the meantime communities of people must claim their rights, through adopting
1804 laws that prohibit activities, such as fracking, which violate the people's rights to
1805 clean air, water, and soils. These laws must deny "rights" claimed by corporations
1806 which are violating the people's rights. Although state laws may attempt to pre-empt
1807 such local law-making, the right to life must prevail over corporate claims of rights
1808 to profit. Otherwise the idea of democracy is meaningless. Do the people rule, or do
1809 the corporations rule? As a growing number of communities adopt laws to prohibit
1810 fracking, society and markets will adjust and we will move toward renewable
1811 sources of energy and away from the fossil fuels, which offer short term
1812 convenience, but dreadful long-term prospects. Let regulation and prohibition work
1813 together toward a future for our children, a future with life, health, and democracy.

1814 **Testimony of Dick McGinn**

1815 Thank you for hosting this tribunal, and thank you for inviting John Howell and me
1816 to represent Democracy Over Corporations (DOC) and the Bill of Rights Committee.

1817 Our special interest concerns the role of democracy, and the right of self-
1818 determination in a democratic society. My concern is whether the people of Athens
1819 County have the right to decide for themselves whether to allow frack waste
1820 dumping or not, and in particular, whether there is any support for the idea of
1821 Community Rights in the Universal Declaration of Human Rights. More about that
1822 at the end of my testimony.

1823 The Tribunal is about human rights and environmental justice, with special emphasis
1824 on fracking and the dumping of toxic fracking wastes in the poorest region of the
1825 state, Appalachian Ohio. I understand that my testimony may be presented to the
1826 United Nations. Here is my message to the United Nations and the world. America
1827 is not the champion of the environmental movement. On the contrary, concerned
1828 Americans must appeal to the United Nations to point out our national shortcomings
1829 which increasingly our state and federal officials seem totally unable to comprehend.

1830 Let me begin with some background on why I believe that Human Rights and
1831 Democracy cannot be separated. Human Rights are intimately associated with
1832 independence movements, from Thomas Paine and the American Revolution to the
1833 emergence of new nations after World Wars I and II and during the Cold War. It is
1834 the history of struggle to throw off imperial rule and assert the right to national and

1835 local self-determination. In this context the words of the American Declaration of
1836 Independence are echoed in constitution after constitution all over the world,
1837 wherever the blessings of freedom and independence are claimed as the universal
1838 right of a sovereign people.

1839 Not all post-colonial countries have kept their freedoms, however. I lived for seven
1840 years in the two poorest countries in southeast Asia that fell under dictators after
1841 throwing off colonial rule: the Philippines under Ferdinand Marcos and Indonesia
1842 under General Suharto. I conducted research there, and taught linguistics and
1843 Southeast Asian literature for 35 years at Ohio University. I became intimately
1844 acquainted with friends and colleagues among the indigenous populations there. I
1845 have former students who were arrested and some disappeared. Their protests and
1846 their poverty belied the countries' rich natural resources. As reported by Professor
1847 Elizabeth Collins in her book *Indonesia Betrayed: How Development Fails*
1848 (University of Hawaii Press, 2007). The exploitation was and still is being carried
1849 out with full assistance and support of U.S. foreign policy during and after the Cold
1850 War, as in fact happened all over the world. Emerging nations seeking democratic
1851 self-determination were treated as enemies of the West unless they supported the
1852 treacherous dichotomy in which capitalism was the only good, and neutrality was

1853 equated with support for the Soviet plot to take over the world. See Steven Kinzer,
1854 *Overthrow* (2006) and *The Brothers* (2013). The legacy of misguided economic
1855 development models was correctly assessed by Pope Francis in *Laudato si'* (June
1856 2015). Francis emphasized a causal connection between globalization, widespread
1857 poverty, and environmental destruction.

1858 When retired from Ohio University, I was keenly aware that the same thing was
1859 happening in Appalachia and especially in Athens County. My entrance into the
1860 environmental movement was through APJN and DOC. DOC has been instrumental
1861 in bringing the Community Rights Movement to our city and county. What follows
1862 is my testimony based on our work with the Community Environmental Legal
1863 Defense Fund (CELDF).

1864 My assigned topic, public participation, can be divided into willing and unwilling
1865 participation. Unwilling public participation includes the use of tax money to
1866 subsidize fossil fuel production and to pay for clean-up and the resulting damage to
1867 waterways and infrastructure, while the benefits go to the state and the industry.
1868 Southeast Ohioans are still dealing with the legacy of acid mine drainage for
1869 potentially centuries. So why should we now risk accepting millions of barrels of
1870 this unidentified toxic water injection—in unmonitored wells—simply because the

1871 state says so? Willing public participation, on the other hand, includes citizens'
1872 efforts to learn the facts and participate in the decision-making process. But here the
1873 state and the industry have been obstructionist. They refuse to disclose the
1874 chemicals used in fracking, and use medical gag orders to prevent disclosures after
1875 accidents. These are just two examples of blatant violations of the people's right to
1876 know what is going on in their communities.

1877 Despite the secrecy, there is solid evidence that the majority of Ohioans are not
1878 ignorant, and their knowledge and sense of alarm are becoming a major factor in the
1879 fracking debates. Their growing awareness is partly due to the efforts of concerned
1880 citizens, many of whom are testifying in this Tribunal. Groups have worked
1881 tirelessly for years to educate the public, and to demand from state representatives
1882 and agencies that they follow the laws to protect people and the environment.

1883 Further evidence comes from local politicians—both winners and losers in recent
1884 elections. All have voiced opposition to injection wells, including Democrats
1885 Debbie Phillips, Sarah Grace and Eddie Smith, Republican Jay Edwards; the Athens
1886 City Council, and the Athens County Commissioners. The consensus clearly reflects
1887 the public's knowledge, and widespread disapproval, of injection wells. Even more
1888 tellingly, citizens in several Ohio cities have actually voted to ban fracking and

1889 injection wells outright, including Oberlin, Yellow Springs, Mansfield, Broadview
1890 Heights, Waterville and Athens. Athens city passed its anti-fracking ordinance by an
1891 overwhelming margin of 78%. To account for this figure, it is necessary to assume
1892 that voters of all political persuasions are well aware of the dangers of fracking and
1893 injection wells.

1894 My point is simply this: If we lived in a real democracy it would be impossible for
1895 us not to get what we want through the power of the ballot box.

1896 Let me conclude with an observation about Article 19 of The United Nations
1897 Declaration on the Rights of Indigenous Peoples (UNDRIP, 2007). **Article 19**
1898 **expressly secures for indigenous people the** right to say “no” to industrial projects
1899 that may cause harms to them and the environment. However, this “right” is not
1900 universal, but is reserved for indigenous peoples. What are we to make of that in a
1901 discussion of human rights?

1902 My point of reference to answer the question is the movement of which I am a part,
1903 the Community Rights Movement, sponsored by the Community Environmental
1904 Legal Defense Fund (CELDF).

1905 The Community Rights Movement interfaces with the Universal Declaration of
1906 Human Rights (UDHR) in an interesting way. Although both are about human

1907 rights and environmental justice, there are two points of difference which I will try to
1908 reconcile. First, in 1948 UDHR recognized the obligations of “States” to protect
1909 human rights and the environment without distinguishing among types of
1910 government, be they democracies, monarchies, dictatorships or colonial empires.
1911 Next, in 2007 UNDRIP recognized that “States” have special responsibilities with
1912 regard to indigenous peoples, namely—and I quote: “the duty to insure that no
1913 hazardous materials—including the hazardous chemicals used in hydraulic fracturing
1914 and the flowback fluids that result from it—shall be stored, or disposed of, on the
1915 lands of indigenous peoples ‘without their free, prior and informed consent’.”
1916 The CELDF approach seeks to advance the same human rights for all people
1917 everywhere, including indigenous people. Indigenous people are not singled out for
1918 special treatment, but rather serve as the model for the whole world.
1919 In conclusion, I suggest that in discussing Human Rights, it is, at best, incomplete to
1920 impose a double standard, however well-meaning. In practical terms, it is not
1921 enough to badger governments—and I quote: simply “to insure that the industrial,
1922 manufacturing and environmental conservation sectors are regulated in ways that are
1923 protective of citizens’ health.” It is also necessary to badger them to take the next
1924 logical step, namely, to avoid imposing environmentally destructive development

1925 projects on all communities everywhere “without their free, prior and informed
1926 consent.”

1927 **Testimony of Annie Burke**

1928 My name is Annie Burke. I am a lifelong resident of Athens County, Ohio. I am
1929 also a registered nurse. I am speaking out today about my concerns regarding
1930 hydraulic fracturing waste.

1931 The State of Ohio, as well as the United State Environmental Protection Agency has
1932 allowed the Ginsburg Injection Well to operate off and on for years in violation of
1933 state law. A converted oil/gas well now used as an injection well for frack waste
1934 located at 2345 Ladd Ridge Road in Alexander Township, Athens County, Ohio, this
1935 well violates the health, safety and well-being of our community. This pit of smelly,
1936 disgusting frack waste remains openly accessible to wildlife and vulnerable to the
1937 ravages of weather, allowing for the possibility of ground and surface water
1938 contamination. Such contamination poses a real threat to the drinking water and air
1939 quality of our community.

1940 The Ginsburg Injection Well is owned by Carper Injection Well-Albany LLC.

1941 Review of publicly-accessible inspection reports by the Ohio Department of Natural
1942 Resources (ODNR) shows that this well has a history of violations, non-compliance,

1943 and being non-operational for months at a time. Mechanical failure and leaking has
1944 occurred, as well as, soil contamination.

1945 This well is a blight upon our community. The stench emanating from this pit is
1946 often unbearable. People spending time on the public road have experiences nausea,
1947 headaches and burning eyes.

1948 The Ginsburg well does not meet USEPA commercial well permitting requirements
1949 or even current Ohio permitting standards, which are also inadequate to protect
1950 drinking water and communities from toxic, radioactive contamination. It is
1951 unconscionable that the surrounding surface-, ground-, and drinking water supplies
1952 have never been tested by ODNR for contamination.

1953 This well has been in operation for over thirty years and has a long history of
1954 noncompliance with the few regulations that exist for frack waste wells. Residents
1955 of Athens County have repeatedly voices concerns about this well; our concerns
1956 have gone unnoticed by the governing officials who should be protecting us.

1957 Just over a month ago, acting on reports by the ODNR, that showed this well to have
1958 been non-operational since October 2015, we appealed to the ODNR and Ohio's
1959 Governor Kasich to permanently close this well. According to the ODNR
1960 regulations, any injection well not in use for greater than 60 days must plugged. The

1961 response? A new pump was put in, so that currently it is possible for the well to be
1962 used. This band-aid “solution” demonstrates a blatant disregard for upholding the
1963 regulations in place and flouting the concerns of Athens County residents. Making
1964 this well operational now does not change the fact that it was in violation for months.
1965 This technical violation is the least of our concerns. When one closely reads these
1966 inspection reports, one can see that during 2016 (when the well was being listed as
1967 non-operational and containing a faulty pump that needs replacing), 60 barrels of
1968 waste were added to the volume totals for this injection well. Additionally, the
1969 levels of this well increased two feet—an amount that is not consistent with the
1970 amount of rainfall in the area during that time period. According to Athens
1971 Messenger newspaper, ODNR spokesperson Eric Heiss stated in an email that the 60
1972 barrels of waste were injected prior to the pump malfunction. It appears to me from
1973 the ODNR records that this is either a blatant lie or reflective of incompetence in
1974 documentation and lack of attention to detail. Either one is frightening. This is a
1975 matter concerning the safety of our families and their drinking water. We cannot
1976 have lack of attention to detail (at the least) or dishonesty (at the worst). The fact is
1977 there have been enough violations at this injection site and enough discrepancy
1978 surrounding the true condition of this well that we should no longer be complacent.

1979 It is time for the ODNR to do its job and protect the environment and our community
1980 from possible toxic contamination.

1981 According to the permit for this well, a fresh-water monitoring well was
1982 recommended to be placed at this site by the owner Royal Petroleum in 1984. There
1983 has never been any such monitoring well. This is not surprising. They have never
1984 shown any interest in ensuring the safety of our community. A fresh-water well for
1985 monitoring possible contamination would be an added expense for them. This is
1986 another example of how the ODNR is failing to protect us in the interest of Big Oil
1987 and another reason that this well must be closed immediately.

1988 On 11/19/2015 an inspection report states: "The facility gate was locked. The 5'
1989 Rumpke dumpster located next to the entrance to the unloading pad has large holes
1990 in the bottom portion. This dumpster is used to dispose of used brine filters. The 5'
1991 area and 2' area behind the dumpster is contaminated. The contaminated soil must
1992 be removed and taken to an EPA approved landfill." Inspection reports over the next
1993 several months reveal no contamination removal took place. It is now unclear
1994 exactly when the contaminated soil was removed. The cleanup was NOT
1995 immediate, was not reported to the ODNR and was not adequately documented. The
1996 company did not inform the ODNR where the contaminated soil and brine filters

1997 were taken. It is possible that the contaminated soil and brine filters had radioactive
1998 material!

1999 Scientists have confirmed repeatedly that injection wells cause earthquakes. It is
2000 well known that the solution injected into these wells (called brine) is laced with
2001 toxic chemical and radioactive material. Yet, we are forced to live and work and
2002 raise our children next door to these sites that are barely monitored and poorly
2003 regulated and are told we don't even have a right to know what is being forced into
2004 the ground, contaminating our aquifers and farm soil. We write our senators and call
2005 our governors and march on our representatives' offices. We meet with members of
2006 the ODNR and NOTHING CHANGES. This community has lived through DuPont
2007 (chemical plant that makes Teflon) dumping C-8 into our water and we have
2008 watched our loved ones suffer and die with various illnesses and cancers because of
2009 it. Why should we be forced to do this again with frack waste? I don't want to see
2010 another generation getting sick from drinking the water and breathing the air. I am
2011 terrified of what we are allowing these frack injection wells to do to us. Why do our
2012 elected officials want to wait and see what happens? Haven't we seen enough
2013 environmental disasters to know that we can't afford the luxury of complacency?
2014 Just because our community is poor doesn't mean we are expendable. We deserve to

2015 have clean water and air. Our children deserve to have clean water to drink and
2016 clean air to breathe. Ohio and the federal government are in violation of so many
2017 Human Rights that the list would go on for a longer period of time than the 10
2018 minutes I have. But, to name a few, I believe our governments are in violation of
2019 Duty to protect the child (i.e., persons under age 18)
2020 Human rights obligations relating to the enjoyment of a safe, clean, healthy and
2021 sustainable environment.
2022 Human rights obligations to Health.
2023 Right of all persons to the highest standard of health.
2024 Right of experimental subjects to be protected from injury, disability or death
2025 Right of experimental subject to free and informed consent
2026 Right of the child to the highest standard of health
2027 Right to life, liberty, and security of person
2028 Right to participation in decision-making in environmental issues
2029 Right to a healthy environment

2030 **Testimony of Leatra Harper**

2031 Never in a million years would I have believed what I have seen in the last six. Back
2032 in 2011 when I first heard about fracking, I could not imagine that something so

2033 destructive and harmful would be allowed to continue and proliferate, especially
2034 with all the human rights violations and environmental and public harms that
2035 fracking creates. Just as we were considering investing in an addition to make our
2036 Seneca Lake cottage our retirement home, and our daughter warned us we wouldn't
2037 want to live there because of fracking, and we said, "What's fracking?" Even then
2038 when our daughter, Leslie, described how terrible fracking would be, we didn't
2039 believe it could be that bad and still be legal. Little did we know how compromised
2040 the US government, the Ohio legislature and Governor Kasich are when it comes to
2041 money – and how our regulatory bodies would be captured by a single industry, and
2042 how such a toxic, temporary industrial expansion would be allowed to wreck a
2043 countryside and destroy people's lives. I still – to this day – feel like I must be in a
2044 bad dream and hope to wake up from it any minute, but each time I travel back to my
2045 beloved Seneca lake and survey the damage and destruction, I realized that my
2046 earliest fears were not founded – fracking is much worse than I feared at the outset –
2047 much, much worse. Seven years later, I am seeing the total industrialization of a
2048 once bucolic country scene, the destruction of clean air and clean water, and hear
2049 stories of local people sick with cancer and other unknown illnesses, rashes, nervous
2050 system complaints and nosebleeds. We had to leave the area because we couldn't

2051 trust the water we were drinking or the air we were breathing. For instance, one day
2052 when I returned from filming the flaring of the Ruble well in Monroe county that
2053 went on for weeks, after just a half hour of being next to the flares and fumes, when I
2054 walked in the house, my husband – who ran a steel mill and knows – told me that I
2055 smelled like benzene and that I had been exposed. I knew something was toxic in
2056 the air with the nervousness and eye and throat irritation that I experienced. I
2057 realized then we could no longer allow our granddaughter to come see us, because
2058 she was going through puberty, and our research told us that it's not the dose, it's the
2059 timing of the exposure that can be especially harmful. We bought our lake home to
2060 keep our family together. We found Seneca when we lived in Pittsburgh and our
2061 daughter moved to Columbus. Seneca was the perfect meeting place, and the perfect
2062 healing place for daughter and granddaughter who ended up going through a terrible
2063 divorce. Seneca was our solace, our place to find peace and comfort, and it was
2064 destroyed when the Muskingum Watershed that loosely calls itself a conservancy
2065 district decided it couldn't forego the hundreds of millions of dollars the frackers
2066 offered to drill under the 3500 acre reservoir and sell 2 million gallons of water a day
2067 from it – water that would never glisten in the sun again – but would be used one
2068 time for a single industry and destroyed for any other good use – creating a huge

2069 waste stream that could contaminate the remaining water. But the State of Ohio said
2070 that's OK – here's another revenue stream that the Ohio government just couldn't
2071 forego. While the industry touted jobs, we saw temporary, toxic jobs that would
2072 poison the workers. While the state touted revenue, we saw the long-term cost of the
2073 cleanup that will need to be done, if even possible. While our legislators and
2074 regulators looked the other way – we saw the negative impacts to important
2075 industries like agriculture and recreation and to the future economic viability of a
2076 region that could support other industries and attract visitors and tourists.

2077 I never thought that despite all our best efforts that nothing we could do would
2078 change the course of events charted out for us by the global, multi-national
2079 investment community who cares nothing about exploiting the region as a resource
2080 colony for their profits. Sure there were a few wealthy landowners and a few
2081 desperate workers who were able to earn money from the industry, but many
2082 landowners moved away so they wouldn't have to be personally impacted while
2083 their neighbors were made to suffer through it. The workers are often temporary,
2084 without insurance or pensions, and most have no idea what the long-term effects that
2085 hazardous chemicals, toxic radiation and an industry with the worst all-injury
2086 frequency of all could do to them. We had a choice – either become victims or fight

2087 back. To our family, this was not a choice. We loved Seneca Lake, our neighbors
2088 and our granddaughter. We refused to be victimized, and even though we had to
2089 leave because it was too painful and harmful to live there, we continue. This is what
2090 we have attempted to do with all our extra time and all our extra money – even time
2091 and money that we don't have – to try to stop the frackers – to little or no avail – SO

2092 FAR:

2093 We picketed, rallied, protested and testified at the conservancy district board
2094 meetings and the conservancy court time and time again to stop the MWCD from
2095 leasing public land and selling water for fracking. We wrote letters and obtained
2096 expert testimony, paid for expert witnesses, contacted others to testify, paid for ads
2097 and mass mailings. We filed many public records requests and even had to file to
2098 lawsuit, which we won, to obtain the addresses of cottage owners around the MWCD
2099 lakes. We paid \$5000 to send out a mass mailing to alert those that leased property
2100 around the lake about what their landlord, the MWCD, was doing to diminish their
2101 property values and harm the environment and public health.

2102 We hosted information meetings and did flyering, paid for ads, a direct mail
2103 campaign and a venue to host an information meeting to alert the local community to
2104 the threats of fracking and give them health information that they would need to

2105 have to protect themselves and document for future damages.

2106 We canvassed the area and alerted people of how to keep track of toxic intrusions
2107 and health effects and what to watch out for to protect themselves from the hazards
2108 of fracking, and to let them know how to fight back to defend themselves from toxic
2109 trespass.

2110 We participated in Community Rights actions and campaigns, attending council
2111 meetings and paying for brochures and yard signs to put rights-based language on
2112 local ballots to restore the local control that had been stripped from Ohioans by the
2113 Neihaus law in 2005, just one of the many bought and paid for legislative changes
2114 that gave fracking exemptions that no other industry in the state or the US can have.

2115 We started a small non-profit, paid to develop a website, and targeted our regulators
2116 and legislators to all the hazards of fracking, writing press releases and paying for
2117 lawsuits whenever we could find a hook in all the dismantled legislation made
2118 possible by corporate campaign contributions and a compromised legislative body.

2119 We authored group sign-on letters which we sent to the Governor and others
2120 expressing our concerns and justifying them with science and documentation of the
2121 health effects that quickly became apparent once the industry took hold of the
2122 region. We sent them certified mail, return receipt requested, and all we got in return

2123 was the return receipt – not a word back from a single one of them.

2124 We met with representatives from legislative offices, attended legislative action

2125 days, and requested personal meetings, but have yet to have a meaning meeting with

2126 a single legislator, even after sending newsletters and announcements and following

2127 up personally. When we would meet with a legislator’s assistant or aide like Jeanne

2128 Wilson, we would be offered platitudes like, “now they are going to be able to frack

2129 with propane and not use all the water – which has never happened. We were talked

2130 down to as if we were stupid, if not totally ignored.

2131 We participated in and supported protests in Columbus on the steps of the statehouse

2132 – while the elected politicians ignored us and the industry propagandists watched for

2133 opportunities to talk to the media to discredit us. We marched in Washington against

2134 fracking, and recently at the Climate March.

2135 We hosted and paid for a conference at the Wean in 2012 to share the science and

2136 proof of the harms of fracking. We had great media attention and attendance –

2137 wonderful speakers and preserved the documentation of their presentations and sent

2138 to our legislators – nothing came of that. Then we decided to make it easy for the

2139 Ohio legislators – we hosted a conference in Columbus at the statehouse atrium. We

2140 paid for everything – even a free lunch – for the legislators. Carolyn Harding

2141 personally visited every single legislative office to invite them to learn about
2142 Fracking, Public Health and Liability. Hardly anyone attended – most just walked
2143 through on their way to another – more important – appointment, like with a fracking
2144 lobbyist. The few who did sit with us were reticent – maybe they were more afraid to
2145 oppose an industry that would target them and support their opponent in the next
2146 election than they were afraid of the harms done to their constituents by the frackers.
2147 We have filed hundreds of public records requests – some which are totally ignored -
2148 some which are claimed to be “overbroad” or whatever – and some that are just
2149 strung out for so long so that we don’t know the locations or operations of the
2150 numerous frack waste permits or even what facilities are given notices of violations
2151 to be able to find them and document violations or lodge complaints ourselves.
2152 We filed a verified complaint to the OEPA that took over a year to have answered,
2153 and even so, the 24 hour air sample was picked up on private property by an industry
2154 employee and not the agency itself after only 12 hours. When we have lodged
2155 complaints of odors and suspected spills and dumping ourselves – even when we
2156 have pictures to prove it – the agencies don’t come out immediately to inspect and
2157 catch the perpetrators in the act – and they can’t take our word for it or even our
2158 pictures of the dumping. Most of the compressor station flaring and pigging is done

2159 at night. We know that these concentrated toxic releases contain carcinogens like
2160 benzene, but no one will put a 24/7 fence-line monitor at these facilities to tell people
2161 what it is exactly that is being spewed into the air that is making them sick. People have
2162 had to live with their windows closed and watch their trees die. When we complain
2163 to the USEPA that the Ohio EPA is not responding, they come in on short notice (if
2164 at all) and still no equipment to measure VOC's, and leave just as quickly. We have
2165 been told that the OEPA will notify a facility that they are coming in to inspect
2166 before they do so the frackers can insure there's no toxic release while they are there.
2167 It is unbelievable that with all the air pollution that the industry has brought that no
2168 one has yet been able to tell us what is making us sick. If they don't measure it,
2169 apparently, it doesn't exist.

2170 We have collected samples of water and paid for testing for radionuclides ourselves.
2171 When we know that there's a radioactive waste stream like from a facility given
2172 Chief's Orders to operate like Patriot, we have even offered to collect samples and
2173 pay for testing ourselves to determine the level of radioactivity. Of course, the
2174 private fracking companies won't let us do that, but we were denied by the public
2175 wastewater treatment plant that was processing Patriot's waste stream because they
2176 didn't want to alienate their customer (their words). Apparently, the revenue they

2177 received from the frackers was worth more to them than protecting public health and
2178 safety. We finally issued a Notice of Intent to sue at our own expense, charging the
2179 Ohio EPA with violations of the Clean Water Act. The OEPA should have been
2180 doing more themselves, but unfortunately, we will have to appeal to the courts at our
2181 own expense. Even then, justice is not always forthcoming.

2182 For instance, after much protest and documentation, we finally filed a lawsuit against
2183 the ODNR for issuing Chief's Orders to allow facilities like Patriot to operate to
2184 pollute without regulation. It was thrown out by the courts on something as frivolous
2185 as "standing" – so we had to file to be heard in front of the Ohio Supreme Court –
2186 that was over a year ago – still no hearing – and the facilities continue to operate and
2187 pollute and destroy our clean air and water without regulations to protect us.

2188 Now we have the frack gas pipelines, taking our private property by eminent
2189 domain, even though they are mostly for export and private gain. We tried to stop
2190 them. We paid for and filed protests against the water degradation permit – it was
2191 issued by the OEPA without even a comment to our concerns. We paid for flyering,
2192 handouts, robo calling and displays at FERC hearings and at the OEPA hearings
2193 against the pipelines and their toxic, polluting compressor stations. We packed the
2194 halls with overflow crowds, and paid for expert testimony which was totally ignored.

2195 We testified for our three minutes at each and every one of them – sometimes
2196 travelling great distances and putting all other important things in our lives on the
2197 back burner to respond to these opportunities for public hearings, even though we
2198 were not given adequate notice and even had to hear about them through word of
2199 mouth because no one has the time to watch every single newspaper in the state for
2200 notices of public hearings. It is apparent after all our efforts and testimony that the
2201 public hearings are just a sham – just a compliance with regulations – nothing we say
2202 or do and even with hundreds of people attending – nothing makes any difference at
2203 all. The rubber stamp of the corporate shills approves them all.

2204 We travelled to Washington DC a few months ago to testify at the People’s Hearing
2205 sponsored by Delaware Riverkeeper about FERC abuses. We traveled to DC a
2206 couple weeks ago to march in the Climate March with over 200,000 others. Very
2207 little media attention was given to our efforts in Washington, and yet, to be there in
2208 person, we knew it was significant. It’s important to be with others of like minds and
2209 hearts – it helps to feel connected, empowered, and not so alone and ineffective. Still
2210 – we boost each other up while the powers-that-be beat us down by ignoring,
2211 downplaying and deriding our efforts.

2212 We continue to target the Muskingum Watershed Conservancy District, a corrupt

2213 political subdivision that seems to be immune from all accountability for the
2214 damages it is doing to a watershed. The MWCD occupies 20% of Ohio's landmass
2215 and has leveraged valued public assets for its own personal kingdom building to do
2216 things like build visitor centers that no one will ever visit. Many people are afraid of
2217 the MWCD – we have even been threatened with lawsuits, and we have been
2218 disposed by them in an apparent attempt to intimidate. Even so, we have asked the
2219 courts to hold the MWCD responsible to fulfill its obligation for recreation,
2220 conservation and flood control, instead of to destroy them by fracking. We continue
2221 to remain in court, despite substantial personal expense, because someone has to stop
2222 them. If not, the MWCD will be able to tax property owners within the district to
2223 remediate the destruction they have perpetuated, if that is even possible.

2224 Most people would have given up by now. Some people think we are crazy to take
2225 so much on for so long. But I have a granddaughter – a granddaughter who may not
2226 live out her natural life if extreme fossil fuel extraction accelerates global warming
2227 and pollutes her world. We are not crazy people. But if you look at what is being
2228 done to us, I have to admit, it's hard to retain sanity. There's a real need to succumb
2229 to cognitive dissonance and say that it can't be that bad, or worse, that there's
2230 nothing we can do. But I refuse to be victimized without fighting back. Maybe it's

2231 from the DNA in my Appalachian roots in which my great grandfather was killed in
2232 a coal mine explosion, they say the owner intentionally set because he was trying to
2233 organize a union. Maybe it's my husband who is a scientific researcher who sees the
2234 harms of fracking and takes exception to it because they are the only industry given
2235 special exemptions to important environmental regulations. He had to run a steel mill
2236 in compliance with those regulations, and one year, 80% of his capital budget was
2237 spent in environmental compliance. He had to prove to the USEPA who monitored
2238 his emissions that his company didn't do it. They had monitors to show when the
2239 steel mill emitted benzene – why don't they bring that same equipment to the frack
2240 fields to protect us? There's something really corrupt and unjust going on.

2241 **Youngstown Tribunal**

2242 **Testimony of Barry Booth**

2243 Hello, my name is Barry Booth. I live in Carroll County, OH and am a member of
2244 Carroll County Concerned Citizens.

2245 About 4 years ago my wife and I were overtaken by a gas smell that put us on the
2246 floor. I started throwing up, my eyes were burning, and I could not breathe regularly.
2247 So I called 911, two fire departments came to the house and found a level of gas in the
2248 house. Both fire departments smelled the gas on the way to our home. So on Monday,

2249 I called the EPA, the ODNR, and Senator Gentile. The EPA said that it was my gas
2250 furnace, which was not running. What a Joke the OH EPA is. There were 117, 911
2251 calls about the smell of gas. Senator Gentile was worried about a well fire in Harrison
2252 County that was killing fish and marine life. So I asked what if this kills me too. So he
2253 sent a person to meet with my wife and I and a half dozen of our neighbors. When he
2254 came to the house, he claimed to be from Chesapeake Energy and wanted to see
2255 the Air Quality about Carroll County and could not believe the levels were so high. It
2256 turns out that he was not an employee of Chesapeake at all. They do not have an
2257 Environmental Department let alone anyone by that name.

2258 The EPA was ordered to come to our house by Senator Gentile, and they had no meters
2259 to measure the gas around our house. The EPA then sent us a letter saying sorry about
2260 the ODOR that made you and your wife sick. (I still have the letter.) An odor is
2261 different than volatile gases; they make you ill. An odor is deodorant that has stopped
2262 working, dog shit on your shoes, bad breath or you have eaten a lot of ham and beans
2263 and are passing gas.

2264 **Testimony of Maria Montanez**

2265 My name is Maria Montanez, and I was born in Youngstown, Ohio. On March 9th,
2266 2013, I felt compelled to halt fracking operations by preventing trucks carrying frack

2267 equipment from entering the Cadle drill sites located in the drinking water source
2268 protection area of Meander Reservoir a source of water for over 400,000 people. My
2269 concern my concerns were well founded and ODNR reports revealed a 4-foot split in
2270 the casing and lack of clarity about the integrity of the well. I was worried what
2271 would happen to an oil well I would worry what happened to an oil well owned by
2272 Whiting Petroleum Corporation would happen here at Meander. The ovah had
2273 started leaking hydraulic fracturing fluid and spewed oil after a blowout that the
2274 company and state officials said they take a couple of days to clear up. If this would
2275 occur here to the Meander, our water source would be damaged forever. Water that
2276 would be lost and not able to be returned to the water table water containing
2277 chemicals such a radium and other not known to us.

2278 Our rights to clean water would be decimated we would be affected not to mention
2279 plants and animals. This is why I halted the production at Meander, because, quote
2280 “every human being has the right to safe clean affordable and accessible water.” Te
2281 There are more than 480,000 underground waste injection wells nationwide more
2282 than 30,000 of which shoot industrial fluids thousands of feet below the surface.
2283 Scientists and federal regulators acknowledge they do not know how many sites are
2284 leaking. Fracking also involves the rights of India's Indian people by failing to

2285 consult with Indian folks before approving of fracking operations that affect their
2286 traditional land. I am part Hieno Indian. The Indians have been fighting for water
2287 rights for centuries, and here we are history now repeating itself again.

2288 **Testimony of Tom Cvetkovich**

2289 My name is Tom Cvetkovich, and I'm from Youngstown Ohio. I'd like to present
2290 two local stories and a few comments on the larger picture. My 94-year-old uncle
2291 [that] lives in Liberty, lived in Liberty Township, right off of Belmont Avenue,
2292 where there was a truck cleaning station. It's still there and the first thing that it's a
2293 dead-end street, it's right off of busy Belmont Avenue [in] Liberty. [It] is the
2294 township just north of Youngstown and the trucking company, Iron Eagle, originally
2295 told Liberty Township that it was going to be a parking lot and cleaning station and
2296 what first thing they did was take the natural soil and put in 18 to 20 inches of
2297 gravel. They started bringing in big tanker trucks, they were asked what they were
2298 doing with big tanker trucks it was the middle of winter, a very very cold winter, - 10
2299 - 15 degrees, they said this is water from cleaning bridges. After a while, it became
2300 clear that it wasn't my uncle lives adjacent to that lot in the middle of the winter.
2301 They would pull up huge pumping trucks giant motors right behind his bedroom he
2302 created residents. In the house the house just shook, I mean it was just as thumping

2303 thumping sound. They would do this later in the evening around 11 o'clock at night.

2304 He called the police; the police came they stopped. [A] few days later he called the

2305 police. The police came, and the stopped it, it happened a third time, as a matter of

2306 fact, the first time they came to they find them \$100 for disturbing the peace. After a

2307 while, the sounds would stop and then continue again it became clear that either they

2308 had somebody in the police department telling them that the police were coming or

2309 they were monitoring the police radio. They would simply go into the temporary

2310 dwellings wait awhile and come back do their work maybe with or without the

2311 sounds maybe later eventually one of the trustees of Liberty asked them to move at

2312 least move their heavy-duty equipment so wouldn't be right up against his house it

2313 was still very very disturbing for a 94-year-old man and pretty much wrecked the

2314 last winter of his life. What's more disturbing is that it became clear that these were

2315 fracking trucks by the notation on the side of the trucks would be hooked up to a

2316 Youngstown fire hydrants. Which they had free access to an unmonitored fire

2317 hydrant, water goes into the pumping trucks it gets pressurized then they use that

2318 high pressure to clean out the trucks. Some members of the Liberty City Council

2319 were sympathetic to trying to keep the water clean, to having this water go into

2320 Youngstown city water, other members had already sold their mineral rights and did

2321 not feel like they could say anything. The... My uncle is very, forceful, shall we say
2322 94-year-old, Eastern European, he eventually got the Mayor to come out to his
2323 house, who said, oh you can't-do anything this is just progress. One of the other City
2324 Council people did stand up for him and try to do things and in fact called the EPA
2325 on more than one occasion, but the fact is is that in this country you are allowed to
2326 dilute and pollute, and that is what we are doing. And that is what they would do;
2327 they would simply use fresh city water, cleaned with our tax dollars, until it became
2328 lower than the acceptable limits and throw it into the city pools, into the city of [the]
2329 water system, the sewer system.

2330 I would want to bring to attention the court a William McDonough who wrote the
2331 book cradle-to-cradle which provides a solution to our problem wherein every object
2332 has within it the possibility of being 100% recycled and every object has all of its
2333 chemical components known. So the cradle-to-cradle movement is growing, and it
2334 will eventually keep the biosphere separate from the man-made sphere, he points out
2335 in his book that being less bad is not good enough and that what we're doing is akin
2336 to boiling a lobster very slowly. Our rules and ecological mandate is given by the
2337 government, are allowing us to just pollute ourselves at a slightly lower rate.

2338 The second local story is my own home; we live about three miles from the injection

2339 well owned by Mr. Lupo, which caused the 12 earthquakes. When the 4.0 earthquake
2340 occurred, my daughter ran downstairs and said did a truck hit our house? You had
2341 something similar to me; it sounded like a big giant just thumping its fists on the
2342 ground directly next to the house. One very large bang, the woodpile behind my
2343 house has fallen three times during that year during the worst of it the wood, which
2344 was neatly stacked vertically was staggered each row of wood was offset about two
2345 inches until it fell over. So that wood had to be lifted at least a fraction of an inch
2346 and offset for that to happen the house is on a slight incline I am now looking at a
2347 twenty thousand dollar bill to have the crack, which I can see through in my
2348 basement followed down to the bedding of the house. The people who were over and
2349 who inspected the house found six or seven more cracks in the foundation of my
2350 house. So sometimes next year they'll dig up the entire foundation we'll look at all
2351 that and all that work will have to be done.

2352 On a larger point of view. When I think about these problems, I think about the
2353 scientific evidence that we are approaching the sixth mass extinction for the planet.
2354 Species on the planet are disappearing at a rate 10 times faster than the Nash and the
2355 natural extinction of the species on average. The species on this planet can survive
2356 for about ten million years before it disappears as the species which we recognize it

2357 at a rate 10 times faster than that human activity, is now accelerating that and I
2358 would like to bring to the court's attention the notion of a Robbing Frenzy book by
2359 the man Joseph Jenkins, who is the author of Humanure Handbook, which is one of
2360 the solutions also which gives guidelines for properly using human waste as a
2361 fertilizer for safely doing that he wrote a book called balance point and in that he
2362 points out an example of a robbing frenzy that occurs in bees for beehive has a
2363 second hole in it the guard bees do not, are not programmed to protect, it if a if a
2364 farmer has bees and the wooden containers rot the second hole may appear. The
2365 other hives then attack that, and they go crazy. They are no longer afraid of smoke,
2366 they no longer know when to sleep, they are not afraid of humans, they have a
2367 reward that far exceeds the normal and their normal behavior disappears for some
2368 reason. Honeybees, which are normally very organized, efficient creatures, and
2369 which have evolved almost perfectly, sustainable, lifestyle will abandon their natural
2370 predilection towards sustainability and destroy each other when free hunting
2371 becomes available. It's like people looting a department store during a riot. I submit
2372 to you that the same thing has been occurring with respect to oil. Oil is equivalent to
2373 free energy, and it has been occurring in the whole European model of empire with
2374 slaves being a source of free energy with the immigrants the Spaniards first coming

2375 here finding the natural resources and with oil with the extinction of the passenger
2376 pigeon, the passenger pigeon numbered 3 to 5 billion and it's been estimated to be
2377 the largest population of birds on the Earth, and we destroyed them completely in
2378 100 years, through the technology of the Telegraph and the railroads, which allowed
2379 the telegraphing of their nesting grounds. And when the flux would appear for
2380 hunters to come in and collect huge quantities of them ship them off to the big cities
2381 and huge barrels killing as many as a million birds in one nesting season in one
2382 location. In 1872, the Ohio State Legislature considered legislation to protect the
2383 passenger pigeon and decided not to do so, one of the reasons cited was jobs.

2384 **Testimony of Reverend Monica Beasley Martin**

2385 My name is Reverend Monica Beasley Martin I'm from Youngstown Ohio, Liberty
2386 Township, Trumbull County.

2387 I say good morning to you I am a former pastor an itinerate elder in the African
2388 Methodist Episcopal Church and I'm the founder of Defenders of the Earth Outreach
2389 Mission we are affiliated with Frack Free America National Collation, and we are an
2390 outreach ministry comprised of individuals from various faith walks who are willing
2391 to take a stance against man's destruction of God's earth for material gains. since
2392 about 2012 we've been on a divine mission to bring awareness of this injustice

2393 through services on the streets, at well sites, parks, cemeteries, churches and
2394 anywhere else that the earth is impacted by toxic trespass. On the 28th of July 2010,
2395 the United Nations General Assembly explicitly recognized the human right to water
2396 and sanitation and acknowledged that clean drinking water and sanitation are
2397 essential to the realization of all human rights. I contend that our rights to clean
2398 water in the United States of America including more specifically Northeast Ohio
2399 are either already or has a potential to soon be violated this is due to the oil and gas
2400 industries insistence to frack and inject poisons from this process into our land and
2401 our federal state and local governments reluctance to do little if anything to stop
2402 them. Over 21800 individuals and families that have been harmful by fracking or
2403 fracked gas and oil production in the United States comprise the list of the harm
2404 according to the Pennsylvania Alliance of Clean Air and water this list began as a
2405 web blog project in Pennsylvania to catalogue verifiable reports of harmful results
2406 connected to the new shale gas exploration that swept across the state from around
2407 2006 onwards. news of the blog spread and some reports were coming in from
2408 thousands of miles away in Texas, New Mexico, North Dakota, and Wyoming now
2409 included on this list is Jamie Frederick's a former resident of Coitsville, Ohio
2410 according to Jamie she became seriously ill shortly after moving into her Coitsville

2411 home. She experienced vomiting and intense abdominal pain daily, and after visiting
2412 six different doctors and several emergency rooms, Jamie's gallbladder was
2413 removed. Over the next two years, she had five additional surgeries to repair a
2414 grapefruit-sized infection that ate through to the outside of her skin her medical bills
2415 ate up her savings. these are Jamie's word used to describe her up close and personal
2416 fracking hell, convoys of trucks and drilling equipment rolled down our once quiet
2417 road living through the drilling and fracking phase of the most recent well was a
2418 terrifying experience we were given no notice and had nowhere to evacuate we were
2419 subjected to unbelievable levels of noise like an airport runway, we couldn't sleep for
2420 days due to the explosions worse yet we could feel the vibration through the house
2421 from the drilling the fracking lasted about three days the gas storage tanks and
2422 radioactive toxic waste tanks are outside my bedroom window uphill from a fresh
2423 artesian Springs on my property our little house in the middle of the woods will soon
2424 be in the middle of a toxic wasteland we have already had a blowout of at least one
2425 well a chemical spill and a tear in a waste pit liner our property value has been
2426 reduced from a hundred and twenty-five thousand dollars to nothing I have
2427 developed kinetic tremors in my hands as a result of the neurological side effects of
2428 some of the chemicals, and you can read more about Jaime and other impacted

2429 citizens in the publication shale field stories.

2430 Now despite the fact that more than 200,000 people including myself obtained our

2431 drinking water from the meander reservoir at least four fracking wells can be found

2432 in the reservoirs drinking water source protection area this concern over the possible

2433 contamination to our drinking water through hydraulic fracturing led to area resident

2434 Maria Martinez risking her life by laying down in the road and blocking a convoy of

2435 trucks carrying fracking equipment. In 2013, oh cracked well casing later repaired

2436 was found in this blot road well September 2015, sometime Youngstown water

2437 Customers received notifications included with their water bills that levels of

2438 trihalomethanes had doubled from 40 parts per billion to 89 parts per billion included

2439 also was a warning advising some people who drink water containing total

2440 trihalomethanes in excess of the maximum contaminant level or mg/l. Over many

2441 years could experience liver, kidney, or central nervous system problems, and

2442 increased risk of cancer, not was this of crack casing an isolated incident according

2443 to Dr. Anthony Ingraffea from Cornell University well leaks are anything but rare

2444 moreover industry studies clearly show that 5 to 7 percent of all new oil and gas

2445 wells leak. as well as age the percentage of leakers can increase to a startling 30 to

2446 50 percent, but the worst leakers remain deviated or horizontal wells commonly used

2447 for hydraulic fracturing. in 2013 it was discovered that Ben Lupo, owner of D&L
2448 energy and hard rock excavating had been deliberately directing his employees to
2449 dump over 20,000 gallons of toxic waste over 30 times into a tributary of the
2450 Mahoning River 2015 2,000 gallons of toxic oil was traced back to an area near the
2451 Kleese wells to Wetlands, private ponds were severely impacted we've also had
2452 some animals and fish died in 2015 in Mill Creek Park and the thing is that most of
2453 these companies do not report and the ones that do it's very difficult in fact they do
2454 not report to most of the 36 states what I meant to say of those that state that they do
2455 report to there's only 3 and Ohio is not one of them. we also have been granted by
2456 ODNR permits to have injection wells in Brookfield route 7 north of old 82, and I
2457 think that if these wells are constructed and become operational history has already
2458 shown us that the prospect of a positive outcome for the community is not good. now
2459 there was an executive order signed by the Trump administration in February Scott
2460 Pruet has begun the process to repeal the Clean Water rule which will be followed
2461 up with a new rule drastically limiting the effectiveness of the Clean Water Act is it
2462 merely coincidental 12 golf courses owned by the 45th President and a hundred and
2463 sixty one thousand acres of streams and wetlands would then be left unprotected by
2464 the Clean Water Act I would like to close with these words for Mario Salazar who

2465 was an engineer who worked for 25 years with the EPA's underground injection
2466 program in Washington and he said in 10 to 100 years we are going to find out that
2467 most of our groundwater is polluted a lot of people are going to get sick and a lot of
2468 people may die.

2469 **Testimony of Diana Shaheen**

2470 My name is Diana Shaheen. I am from Youngstown Ohio, anything else? Okay. it
2471 was late September of 2011 when I felt the first earthquake it felt as if a two-ton
2472 truck had hit the side of my house I ran outside and saw that there was no truck the
2473 impact reminds me of the sonic boom we felt when we were children and aircraft
2474 from the Vienna Air Station broke the sound barrier impact and sound than silence
2475 many of my neighbors were milling around to find out what had happened there
2476 were no answers shortly afterwards I got a call from a friend of mine who lived
2477 across the lake asking if I had felt the tremor I told her I felt as though a Mack truck
2478 had hit the side of my house and whatever it was it sounded felt like a sonic boom
2479 she told me it was related to fracking I repeated the word back to her fracking then I
2480 asked what the hell is fracking she began explaining what fracking was hydraulic
2481 fracturing inserting millions of gallons of water into the earth under very high
2482 pressure to break up shale rock to extract gas from it later I found out that it wasn't

2483 the fracking directly that caused the small earthquake but pressure from an injection
2484 well in which waste from the fracking process was disposed throughout the next
2485 several months the movement began to evolve leading to what is now frack free
2486 Mahoning frack free America there were a cluster of smaller earthquakes but I felt
2487 none again until that New Year's Eve on December 31st 2011 I was preparing to take
2488 a shower when suddenly I felt as though an 18-wheeler hit the front of my house
2489 again impact sound then silence when I went to the New Year celebration that night I
2490 learned it read 4.0 on the Richter scale the earthquake was felt for miles around and
2491 the injection well that caused it was closed down temporarily because of public
2492 protests but then on I began to learn about fracking and how the land men were
2493 moving in from pencil Pennsylvania refract the Utica Shale in Ohio frac pads flaring
2494 injection wells for disposal of radioactive waste drinking wells polluted with
2495 methane pooling land from willing and unwilling owners to build frack pads to frack
2496 the land gas and oil workers sick and dying from radioactive poisoning corporations
2497 building compressor plants near schools and organic farms young women sterilized
2498 because they drank the water breathe the air livestock born deformed proprietary
2499 chemical cancer endocrine disruption women with cancer children with cancer men
2500 with cancer the earth expendable people good people suddenly expendable people

2501 taking a backseat to profit we are not expendable I am here to testify to the Earth's
2502 being a living breathing entity who deserves our respect presently we as humans
2503 enslaved the earth and robbed her of her resources high powered hydraulic
2504 horizontal fracturing is one of the most profoundly brutal ways to extract fossil fuels
2505 from the earth why do we continue to use brutal force to penetrate and extract what
2506 is not rightfully ours when there are other sources of energy that can sustain us such
2507 as solar wind geothermal and hydroelectric power the most blatant reason seems to
2508 be corporate greed fueled by the desire for power gas and oil corporations have
2509 created a world that is run by fossil fuels so that their product would always be
2510 necessary and they could determine world policy by their manipulation of supply
2511 and demand this is nothing new to those of us gathered here we expect it and we
2512 oppose it but there is another aspect to these corporations maniacal use of power
2513 which threatens our species on an even deeper level than their control of the wealth
2514 of the earth and that is their abuse of the earth horizontal high powered hydraulic
2515 fracturing the earth of the earth is a reflection of the rape of women children non-
2516 dominant ethnicities the economically disadvantaged and other disenfranchised
2517 groups we can no longer separate the physical earth from our physical bodies to
2518 sustain what is this the other to harm one is to harm the other if we want justice in

2519 this world we must demand that the earth be treated justly we want compassion in
2520 the world we must treat the earth compassionately what we do to the earth we do to
2521 the people of the earth one indivisible undivided.

2522 **Testimony of Dr. Raymond Beiersdorfer**

2523 Since the advent of shale oil and gas development by high-volume, high-pressure
2524 hydraulic-fracking in long lateral wells (aka fracking) in the region my human rights
2525 have been violated.

2526 My rights to health and clean water are being violated due to fracking-related
2527 pollution, both intentional and unintentional. In my testimony, I want to focus on the
2528 violation of my rights due to earthquakes that are occurring in my region as a result of
2529 fracking. These earthquakes are violating my right to housing because thousands of
2530 people in the region, including myself, live in brick homes. These unreinforced
2531 concrete masonry structures were not built to withstand earthquakes because there
2532 were no earthquakes in the region.

2533 My right of access to information is being violated in that the Ohio Department of
2534 Natural Resources (ODNR) is deliberately withholding information about earthquakes
2535 related to oil and gas development from the general public. I will outline several
2536 examples. Moreover, in Ohio, government regulators, and the oil industry joined

2537 together in secret to mount a propaganda campaign to convince us it's a good idea to
2538 frack in our state parks. When you can't tell the difference between government
2539 regulators and oil industry lobbyists, you have a regulatory agency captured by the
2540 industry they are supposed to regulate. For example, after eight months of earthquakes
2541 in Youngstown, Ohio in 2011 ODNR spokesperson Heidi Hetzel-Evans told the local
2542 newspaper, "ODNR has not seen any evidence that shows a correlation between
2543 localized seismic activity and deep injection well disposal." This was blatantly false
2544 and there was a correlation in both space and time between the injection and the
2545 earthquakes.

2546 My family's right to public participation is also being violated in retaliation for
2547 speaking out publicly about the harms of fracking. My wife and I are both teachers.
2548 As educators, we feel a responsibility to let the citizens know of the documented harm
2549 fracking has caused locally and elsewhere. Susie lost her part-time teaching job at
2550 Youngstown State University for two years after I was told by Martin Abraham, the
2551 Dean of the College of science, Technology, Engineering and Mathematics, that my
2552 wife should not say she works at YSU and is opposed to fracking. When she continued
2553 to do so, she no longer received a contract to teach and was replaced by an unqualified
2554 instructor who was terminated after one semester. Susie had been teaching a nationally

2555 certified high-quality online course for the university for seven years. She has been
2556 reinstated and continues to speak out about the harms of fracking.

2557 I, while tenured, have also been fighting a ongoing hostile work environment that
2558 began in 2012. My department chair Jeffrey Dick commented to the STEM Dean that
2559 I am a poor scientist because I oppose fracking. The Dean inadvertently informed me
2560 of this when he replied to a comment I made to him about my NASA research on
2561 growing crops on the moon by stating "Yeah, Jeff said you used to be a good scientist
2562 before you opposed fracking." When I didn't laugh, the Dean responded: "that was a
2563 joke."

2564 In 2013, Jeff sent me, while including almost the entire administration in an attempt
2565 to harm me, a threatening e-mail demanding a retraction of a false statement in
2566 response to a comment I made in the YSU-OEA union list serve that the chair of
2567 Department of Geological and Environmental Sciences and the Dean of STEM are
2568 both promoting fracking. I demanded to know how he had access to the private union
2569 communication and it turned out he lied in his e-mail as to the source of the "leak."

2570 In 2012 the GES Chair attempted to block department sponsorship (in name only) of
2571 a lecture by Dr. Debra Cowden, a well respected M.D. and Public Health official about
2572 the Health Risks of Fracking. He conspired with the STEM Dean to block the

2573 sponsorship prior to any faculty discussion. He was overruled at a GES faculty
2574 meeting but demanded to see the speakers Powerpoint presentation in advance. This
2575 vetting of a speaker, clearly a violation of academic freedom, had never happened
2576 before in my then 20 years at YSU.

2577 More recently, in February of this year, the GES Chair published an essay in the
2578 Youngstown Business Journal that disparaged my work as an attempt to "agitate the
2579 public using scare tactics, which one by one are proven false or greatly exaggerated."

2580 While not mentioning me by name, I do believe many of the pejoratives in the article
2581 were directed at me. He has also refused to sit with me on a September, 2017 panel on
2582 The Unintended Consequences of Innovation: Shale Oil & Gas Waste as part of the
2583 YSU First Year experience called "Penguin Think -Common Intellectual Experience."

2584 Earthquakes

2585 Prior to shale gas development the state of Ohio had suffered slightly over 200 felt
2586 earthquakes since 1776. Many of them were near Anna, Ohio that sits in an extension
2587 of Illinois' New Madrid and Wabash Valley seismic zones. Anna, The Former
2588 Earthquake Capital of Ohio, had damaging earthquakes in 1930, 1931 and twice in
2589 1937. It also suffered swarms of aftershocks, a qualitative indication of human caused
2590 earthquake triggering.

2591 Based on local newspaper accounts)ohn Armbruster, (Seismologist at Columbia
2592 University's Lamont-Doherty Earth Observatory) confirmed that there were oil and
2593 gas wells operating in that area at the time of the quakes. Because of the Anna's seismic
2594 swarms and prolonged series of earthquakes, he considers it a candidate for human
2595 triggering, but without more detailed knowledge it is difficult to make a strong case.
2596 A Class One Injection Well triggered earthquakes in 1987 and 2001 on two different
2597 faults near Ashtabula, Ohio. The 2001 tremors occurred seven years after the well was
2598 closed in 1994.Since 2011 five Ohio counties, all aseismic, have suffered over 1,100
2599 positive magnitude earthquakes.

2600 All of the earthquakes were human-induced due to fracking for shale gas or injection
2601 of liquid fracking waste.The quakes are restricted to six location, two housing injection
2602 wells, and four fracking well pads. The policy for posting a seismic event on the
2603 ODNR website is that the earthquake was felt or it was magnitude 2.0 or greater.
2604 Earthquakes in Mahoning and Harrison counties meet that criteria and have not been
2605 posted.

2606 The Northstar 1 well in Youngstown began injecting fracking waste in December 2010
2607 over the next year injected 495,622 barrels (over 20 million gallons) of fracking waste
2608 beneath Youngstown, accompanied by increases in pressure. The maximum pressure

2609 allowed on the permit was 1890 psi. At the time the well was shut down on the
2610 permitted maximum pressure was 2500 psi. Small earthquakes began in January. The
2611 first earthquakes large enough to be felt by humans and to register on regional seismic
2612 networks occurred in March. The increases in pressure, while the area was suffering
2613 never before experienced seismicity, illustrates a total disregard for public health and
2614 safety by both the industry and the regulators. For example, on March 14th the
2615 company requested an increase in pressure. On March 16th the ODNR grants the
2616 requested pressure increase.

2617 On March 17th, before the pressure was increased, two earthquakes occur. Two days
2618 later the company goes ahead and increases the pressure, without any interjection by
2619 the ODNR.

2620 As mentioned above, there was over eight month of blatant denial by the ODNR that
2621 the well had anything to do with the earthquakes.

2622 The Northstar 1 well in Youngstown was shut down on December 30, 2011, and was
2623 followed by a Magnitude 4.0 earthquake the next day, which caused damage to
2624 peoples' homes. In his report, Dr. Kim of Columbia University (Kim, 2013) concluded,
2625 "that continued injection of fluid at Northstar 1 well could have triggered potentially
2626 large and damaging earthquakes."

2627 After the swarm of earthquakes triggered by the Northstar 1 injection well in
2628 Youngstown, Ohio (2011-2014) the Ohio Department of Natural Resources (ODNR)
2629 issued new rules regarding injection wells, which includes mandatory seismic
2630 monitoring. Ohio will seek the following reforms to its Class 11 deep injection well
2631 program; It should be noted that rules or permit conditions do not prevent earthquakes,
2632 in Ohio or anywhere else.

2633 *1) Requires a review of existing geologic data for known faulted areas within the state*
2634 *and avoid the locating of new Class 11 disposal wells within these areas;*

2635 *2) Requires of a complete suite of geophysical logs (including, at a minimum, gamma*
2636 *ray, compensated density-neutron, and resistivity logs) to be run on newly drilled*
2637 *Class 11 disposal wells. A copy of the completed log, with analytical interpretation*
2638 *will be submitted to ODNR;*

2639 *3) Evaluates the potential for conducting seismic surveys;*

2640 *4) Requires operators to plug back with cement, prior to injection, any well drilled in*
2641 *Precambrian basement rock for testing purposes.*

2642 *5) Requires the submission, at time of permit application, of any information available*
2643 *concerning the existence of known geological faults within a specified distance of the*
2644 *proposed well location, and submission of a plan for monitoring any seismic activity*

2645 *that may occur;*

2646 *6) Requires a measurement or calculation of original downhole reservoir pressure*
2647 *prior to initial injection;*

2648 *7) Requires conducting a step-rate injection test to establish formation parting*
2649 *pressure and injection rates;*

2650 *8) Requires the installation of a continuous pressure monitoring system, with results*
2651 *being electronically available to ODNR for review;*

2652 *9) Requires the installation of an automatic shut-off system set to operate if the fluid*
2653 *injection pressure exceeds a maximum pressure to be set by ODNR;*

2654 *10) Requires the installation of an electronic data recording system for purposes of*
2655 *tracking all fluids brought by a brine transporter for injection;*

2656 Unfortunately, rule number 10 has never been implemented, Had it been; it may have
2657 prevented the owner of the Northstar 1 well from illegally dumping up to 480,000
2658 gallons cleanup cost over three million dollars but none of the subcontractors working
2659 on the cleanup were paid. This lost revenue by businesses eventually harmed Ohio
2660 taxpayers. At the time these rules were announced I recommended requiring a sonic
2661 log in addition to the required gamma ray, compensated density-neutron, and
2662 resistivity logs. The sonic log can identify faults transected by the borehole; the others

2663 can't. This is important if the well drills through a fault plane. This was very relevant
2664 to the Youngstown injection well because the borehole penetrated about 200 feet into
2665 the basement rock and actually penetrated a fault. Any logs in wells that are limited to
2666 the overlying sedimentary layers cannot detect these basement faults.

2667 Faults in the sedimentary layers above the Precambrian basement are rarely the source
2668 for the larger, potentially damaging earthquakes. Experience in Ohio and elsewhere
2669 indicates that these dangerous induced earthquakes occur in the basement rocks. These
2670 newly reactivated faults are not random. They are predominantly near-vertical east-
2671 west trending left-lateral strike-slip faults. My working hypothesis is that they
2672 represent a series of ancient oceanic fracture zones in the sea floor beneath the shale
2673 and other marine deposits. Unfortunately, near-vertical faults in ancient oceanic crust,
2674 nine-thousand feet below the surface are difficult to identify using conventional
2675 seismic reflection data. They are being discovered by injecting millions of gallons of
2676 fluid underground and triggering earthquakes in some sort of for-profit science
2677 experiment. Due to the threat to public safety, this experiment needs to stop
2678 immediately.

2679 The permit for the Northstar 1 injection well in Youngstown, Ohio stated that:

2680 *``Upon discontinuance of injection operations, the owner/operator must apply for a*

2681 *permit to plug and abandon the well. The well must be plugged and abandoned within*
2682 *60 days Of discontinuance of operations."* Discontinuance of operations at the
2683 Northstar 1 injection well began on December 30, 2011, when the well was ordered to
2684 be shut down. As of July 2017, the well has not been plugged and abandoned. Today,
2685 July 29th, 2017 marks 2,038 days since the discontinuance of injection operations.

2686 An injection well in Trumbull County triggered 108 earthquakes on two faults in 2014.
2687 The initial earthquakes were kept secret from the public until one was large enough to
2688 get on the regional USGS network. This well is less than three miles from a dam that
2689 provides drinking water to over 400,000 people. It is currently shut down and should
2690 be plugged and abandoned as soon as possible.

2691 The public information on both of these wells has been removed from ODNR's web
2692 site. A clear violation of the right of access to information.

2693 The fracking process itself has also triggered earthquakes in Ohio. The induced
2694 seismicity due to fracking in Ohio drew public attention in March 2014 when 77
2695 earthquakes ruptured at least 300 meters of a previously unknown fault under a
2696 municipal wasteland fill. However, in October of 2013, over 400 earthquakes were
2697 generated due to fracking in Harrison County, about one hundred kilometers to the
2698 south. This information was kept secret from the public until the publication of a

2699 scientific journal article about the event (Friberg et al., 2014). Several of the 2013
2700 earthquakes were magnitude 2.0 or greater and met the criteria for listing on the ODNR
2701 Ohioseis website. They were not posted.

2702 On April 11, 2014, the Ohio Department of Natural Resources (ODNR) published on
2703 its website a press release stating that "recent seismic events in Poland Township
2704 (Mahoning County) ... show a probable connection to hydraulic fracturing." This
2705 finding is of both scientific and political significance. People in cities like Youngstown
2706 have voted on ballot issues to prohibit fracking within their communities, with wells
2707 as close as 150 feet of their homes,

2708 At that time, according to ODNR spokesperson Mark Bruce, no report will be issued,
2709 and a public records request must be filed to look at the data. The conclusions of
2710 ODNR's study, as described in the press release, were very significant. Yet the ODNR
2711 did not create a report and did not make the data readily available online for the
2712 scientific community to review. I had to make a public records request for all available
2713 data related to the Mahoning County 2014 earthquakes.

2714 The press release stated that "The new policies are in response to recent seismic events
2715 in Poland Township (Mahoning County) that show a probable connection to hydraulic
2716 fracturing near a previously unknown micro fault." The ODNR does not explain the

2717 meaning of the word micro fault. This is not a common geological term. The Glossary
2718 of Geology (3rd edition with over 34,700 terms) does not include micro fault. Structural
2719 geology textbooks state that micro faults can only be visible under a microscope. We
2720 now know, and ODNR ken at the time, that the fault ruptured along 300 meters of its
2721 length. This never was a micro fault and ODNR's use of the term was a deliberate
2722 attempt to mislead the public.

2723 The press release also stated that "ODNR Director James Zehringer announced new,
2724 stronger permit conditions for drilling near faults or areas of past seismic activity."

2725 *New permits issued by ODNR for horizontal drilling within 3 miles of a known fault*
2726 *or area of seismic activity greater than a 2.0 magnitude would require companies to*
2727 *install sensitive seismic monitors. If those monitors detect a seismic event in excess of*
2728 *1.0 magnitude, activities would pause while the cause is investigated. If the*
2729 *investigation reveals a probable connection to the hydraulic fracturing process, all*
2730 *well completion operations will be suspended. ODNR will develop new criteria and*
2731 *permit conditions for new applications in light of this change in policy. The*
2732 *department will also review previously issued permits that have not been drilled.*

2733 Unfortunately, the ODNR failed to follow their change in policy. The special permit
2734 conditions for fracking wells within three miles of a fault were not applied to wells

2735 about one mile from the Harrison County fault, triggered by fracking at the Ryser
2736 wells, that had over 400 induced earthquakes in 2013. The conditions were announced
2737 in April 2014, yet permits were issued in December 2014 to the Luyster wells in
2738 Harrison County with no special conditions. These wells were about one mile from
2739 the fault. When asked about this, the ODNR Division of Oil and Gas resource
2740 Management Chief replied in writing on February 1, 2017: *The permits for the Luyster*
2741 *wells, issued on December 2, 2014, impro_perly did.not. include.the seismic*
2742 *monitoring conditions. These wells were never drilled and subsequently; the permits*
2743 *expired on December 2, 2016. Since 2014, DOGRM has more than doubled our*
2744 *seismi_c staff as well as increased the number of our permitting geologists, ensuring*
2745 *the documented seismic data is reviewed during the permitting process. If the Luyster*
2746 *permits are refilled, they will include the seismic monitoring conditions.*

2747 After a Magnitude 3.0 earthquake in Monroe County in April 2017. ODNR released
2748 the following statement (but ignored my request for the API number of the well.)

2749 *The ODNR Division of Oil and Gas Resources Management's OhioNET seismic*
2750 *network was alerted to a seismic event of 3.0 magnitude at approximately 8 a.in. on*
2751 *Sunday, April 2. Review Of the seismic data placed the event in Monroe County in*
2752 *proximity to ongoing oil and gas well completion operations. Those activities were*

2753 *halted within an hour of the seismic occurrence.*

2754 *As is ODNR protocol in regards to seismic occurrences, operations were halted. Ohio*

2755 *has some of the most comprehensive seismic monitoring operations and requirements*

2756 *in the country, which helped detect this unfelt event, and ODNR seismologists quickly*

2757 *began investigating potential sources. The division continues to evaluate seismic data*

2758 *and completion operations in the area.*

2759 Prior to the April event, there were five earthquakes in close proximity to the M 3.0

2760 epicenter that ranged in Magnitude from 1.8 to 2.3. They were all greater than the M

2761 1.0 number ODNR selected for their traffic light system, but nothing was done at the

2762 time. The public needs assurance that all rules, regulations or permit conditions are

2763 adequate and that they are actually being observed. This clearly is not the case in Ohio.

2764 The state government is turning a blind eye to the seismic harm from corporations

2765 involved in fracking. Ohio is not upholding its human rights obligations. Finally, I

2766 stress the importance of realizing that rules, regulations or permit conditions do not

2767 prevent earthquakes, in Ohio or anywhere else.

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2799 **Testimony of Mary Greer**

2800 Judges: I am here to provide testimony regarding the violation of citizens' rights to
2801 protect their own properties and to report to you my experience of federal, state, and
2802 local government disregard of the rights of people to clean air, clean soil, and clean
2803 water. I am sure that you will hear a great deal of evidence that has accrued since
2804 Ohio's 2004 advent of horizontal hydraulic fracturing for natural gas. In the last six
2805 years, I and members of our small citizens' advocacy group, Concerned Citizens Ohio,
2806 have amassed thousands of pages and dozens of publications and studies in order to

2807 understand this evidence about extraction and disposal-and to interpret the facts
2808 correctly as they are unfolding here in Ohio.

2809 Certainly you will hear from witnesses testifying to the following:

2810 1. Over one thousand chemicals have been identified in tracking fluids-with profound
2811 negative impacts on fetal development, children, and adults (Yale University School
2812 of Public Health. *Journal of Exposure Science and Environmental Epidemiology*.
2813 January6, 2017).

2814 2. The high rate of casing failure in injection wells, suggests that between 1 and 50
2815 years, cement seals around steel pipes !!i|| crack or rupture, permanently poisoning
2816 aquifers that drain to Lake Erie to the north, the Tuscarawas River and central Ohio to
2817 the south, and the Mahoning and Ohio Rivers to the east.

2818 3. Surface spills in all of Ohio with the exception of the Lake Erie Basin eventually
2819 flow to the Mississippi, impacting 11 states and their populations.

2820 4. Pipeline setbacks are woefully inadequate; for example, a 20 inch pipeline carrying
2821 a product at a mere 650 psi, located 50 feet from a school, is calculated to cause 100%
2822 mortality in the event of a rupture, break, or explosion up to 300 feet from the site.
2823 That same pipeline, at 300 to520 feet from the school would cause 50% mortality. Our
2824 current pipeline setbacks are nowhere near these numbers.

2825 For example, a 48 inch pipeline at psi 1300 should have a setback of 3937 feet, or
2826 7/10ths of on mile. 250 feet appears to be the common practice. On Randolph Road in
2827 Portage County, we have 10 inch pipelines for psi 1300 product laid within ten feet of
2828 front porches and residential back doors. The recommended distance for such
2829 transmission lines should be 820 feet (C. Rhodes. "Calculating Safety Setbacks from
2830 High-pressure Lines"). (The ten inch number in Portage may be larger.)

2831 5. Health studies show the importance of proximity to wells; impacts of injection well
2832 air pollution extend to a circle of about two miles drawn around a well head. In Ohio,
2833 the setback from a well head to a residence is 150 feet-a setback that is too close by
2834 10,310 feet.

2835 6. Soil requires eons to develop. Soil experts testify that one teaspoon of fertile soil
2836 requires 300 years to develop-because soil is a compound of organic and inorganic
2837 materials weathered from rock and mineral aggregate, microbial biomass, and carbon-
2838 based materials. A "wheelbarrow load" of soil requires approximately 3000 years of
2839 weathering and compounding. Considering these timeframes, a chemical spill on soil
2840 with effects that be remediated, provides an alarming picture of wellsites of 1 to 5
2841 acres permanently rendered incapable of farming or safe crop planting.

2842 7. Waste water from deep layer rock injection wells is more than likely to contain

2843 radiological elements, which have a half-life of thousands of years-in other words,
2844 these elements can be diluted but they never "evaporate" or leave the aquatic system.

2845 8. Earthquakes, whether acknowledged by the ODNR or not, endanger basement rock
2846 formations in eastern Ohio. The Oil and Gas Commission itself suspended a well,
2847 stating that "there are simply many unknowns regarding the complexities of deep
2848 geology in eastern Ohio" (Oil and Gas Commission comments. August 12, 2015).

2849 In short, every aspect of production, extraction, disposal, and transport is rife with
2850 dangers, most of which cause permanent damage to the environment: aquifers, rivers,
2851 soils, air, and life in all stages of development.

2852 But I am not here to talk about these aspects of the violations of citizens' rights to
2853 protect their own lives and livelihoods.

2854 Instead. I am here to talk about what we have done to bring these problems to the
2855 attention of our local, state, and federal officials-to no avail. It is a human right to
2856 protect one's own property and one's life. To what extent have we been permitted to
2857 exercise this right as regards oil and gas activities? To no extent. We consider this an
2858 injustice and an abuse of our legal right to protect our own properties and lives.

2859 Consider what we have done so far: First, since 2013, I have brought data and
2860 information to the county commissioners of Portage County 83 times. Each

2861 appearance included cited data, packets of information, and requests for action. Our
2862 county commissioners have agreed unanimously with our requests but are by law
2863 unable to protect county lands or our 160,000 Portage County citizens from our 18
2864 active injection wells or the permitting of more injection wells.

2865 Third, at the invitation of our commissioners and at our request, The Ohio Department
2866 of Natural Resources conducted an "informational" meeting, in the format of
2867 individual table presenters and followed by a lecture without a question and answer
2868 session. Throughout the "event," brown shirted armed guards with an attack dog stood
2869 at the doors and behind citizens attending.

2870 Fourth, we have conducted a free pipeline seminar six times in different locations
2871 around the county in an attempt to educate and warn our citizens of the deceitful
2872 actions of landmen and pipeline companies. This effort included a self-published
2873 manual on how to deal with pipeline problems.

2874 Fifth, we conducted a free seminar on how to research leases in our county for
2875 residents fearful of land agents; this seminar included a self-published pamphlet on
2876 how to research leases.

2877 Sixth, I and two other members of Concerned Citizens Ohio, visited 16 of our
2878 townships, cities, and villages six times each. We presented six topics, supported by

2879 cited data and research, with a total number of presentations of 96. The topics were as
2880 follows:

- 2881 1. Number of wells in our county, the number of barrels of waste dumped in Portage,
- 2882 2. Number, characteristics, and dangers of chemicals,
- 2883 3. Statistics regarding injection well leaks and casing failure,
- 2884 4. The health effects as documented of well activities,
- 2885 5. The financial background of injection well owners,
- 2886 6. Actions available to citizens and elected officials to protest or stop injection wells.

2887 Seventh, I have presented materials in hour-long sessions to our Emergency
2888 Management Director, to the Director of the Portage County Health Department, the
2889 Portage County Board of Health, to the Commissioners of Stark, Trumbull, Carroll,
2890 and Tuscarawas County, and to local state representatives.

2891 Another member of our group attended many meetings of the Gates Mills investigation
2892 into injection wells for the eastern side of Cleveland.

2893 Eighth, for over four years, our citizens conducted monthly well water tests for free
2894 for anyone, keeping data regarding the test results in order to track any contamination
2895 that might be moving underground.

2896 I won't enumerate various rallies, public gatherings, petitioning every Saturday from

2897 Memorial Day to Labor Day at local farmers' markets, etc.

2898 Most heartbreaking was a pipeline informational meeting we attended in Medina
2899 County. The audience filled the room-mostly older people with properties in rural
2900 areas-farmers, retired couples, widows and widowers. They watched with increasing
2901 apprehension as they were shown the map of the proposed pipeline. At the end of the
2902 meeting, they came to us, bewildered, shocked, and afraid.

2903 "Why can't we say we don't want this? My house, my farm-I've lived there all my life.
2904 That land is all I have. How can a private company take my land and do this?"

2905 These are questions we have been asking since 2009. Our county commissioners and
2906 the commissioners of Athens, Trumbull, and Ashtabula unanimously agree. As they
2907 said in their 2015 resolutions to request a moratorium on new injection wells, "there
2908 is grave concern for potential harm to citizens and the environment."

2909 Will local elected officials and representatives of our citizens ever be heard regarding
2910 our citizens' right to say no? How much more data and how many more appearances
2911 are required?

2912 Will state agencies continue to refuse to hear scientific data, research, and personal
2913 accounts of harms caused by extraction and especially, disposal of fracking waste?

2914 Will the federal government refuse to regulate chemicals, pipelines across state lines,

2915 or understand the ultimate devastation of fresh water aquifer contamination for our
2916 nation?

2917 How much longer will policy makers tell the citizens, "We can't help you. Our hands
2918 are tied"?

2919 We say that we should be heard now, for our children, grandchildren, land, water, and
2920 Earth itself. We can change these policies and activities now.

2921 Or should we wait for a devastating event that leaves Ohio and this region a dead zone
2922 sacrificed fo an industry that is already slated to be phased out within fifty years and
2923 to be replaced by clean, sustainable energies?

2924 **Testimony of Mary Booth**

2925 Hello, I am Mary Booth and I am concerned about the chemicals that are released in
2926 the air from that gas and oil well and compressor stations. It was about 2012 when
2927 most everyone around us will sign the oil leases to be truthful we were as blind to the
2928 effects of oil and gas industry as were our neighbors. Chesapeake Energy dangled
2929 money in front of us and we took it, with hopes of getting a lot more. All we have
2930 gotten is that signing bonus and bad health. So if you know of someone that I need
2931 their property, encourage them to not rush. There is a lot at stake for you and your
2932 neighbors. Protect your property and your community.

2933 According to the Ohio EPA, they have calculated the risk of developing cancer to be

2934 2.9 out of every 10,000 people living close to a well pad. In Carroll County, Ohio,
2935 where we live, there is 487 wells. In 2012 Carroll County had a population of 27,669
2936 people. If you divide that by 2.9 you come up with 954 people are likely to get
2937 cancer. Our air is so bad that you do not necessarily have to live close to a wellsite or
2938 a compressor station. You have an overwhelming chance of getting cancer. Within a
2939 mile and a half there are three of us that have had breast cancer since the oil industry
2940 has come to our neighborhood. I am not sure if the others have been told what
2941 caused their cancer, but I have been told that Mike came directly from the oil and gas
2942 industry. To my surprise I found a lump in my left arm Christmas Eve 2014. Sure
2943 enough it was a carcinoma a fast-growing cancer. It was stage III in a milk duct six
2944 lymph nodes.

2945 I have lived in the same house and. I have lived a very active life, working for the
2946 Postal Service raising three children. I was extremely active in my church had a 4H
2947 club. I helped my kids show quarter horses both for age and open shows. Barry
2948 moved in after we were married. Being a single parent he raised his kid while
2949 working in an aluminum extraction plant. He was very active with their sports, their
2950 friends and general needs. We had every reason to think that we could live a long
2951 happy life together. But the oil and gas industry is ruining our health. According to

2952 an air study that we had at our home, due to Carroll County concerned citizens,
2953 showed that we had 32 different chemicals show up in our air including benzo (a)
2954 pyrene which has been associated with cancer. My radiologist, Dr. Chan, said any
2955 chemical that starts with the letter B can cause cancer.

2956 We have a gas and oil well not too hundred and 10 feet out our front window, and a
2957 compressor station 1.5 miles as the crow flies. And to other compressor stations and
2958 a cracker station all within 15 miles. We feel that we need to move to protect our
2959 health! But where can we go? The darn oil companies are everywhere.

2960 We are survivors and we will fight to try and save our home. At least until we can
2961 find another place. And even then, we will fight for the environment. There is a great
2962 deal of uncertainty about exactly how much hazardous pollution is being admitted
2963 into our air. The pollutants are being admitted into our air during the development
2964 harming the air quality of the community and our lives. The gas developers have not
2965 been required to locate, measure or plug leaks. That must change!

2966 The environment is in as much or maybe more danger than what we are. A local
2967 publication reported that 100 to 500 gallons of bentonite clay bubbled up from a wet
2968 under a Township Road as a result of oil and gas related operations. Bentonite is
2969 pumped into pipeline shafts before the pipeline is installed. Bentonite is an absorbent

2970 aluminum phyllosilicate clay. An inspector from the Department of natural
2971 resources is required to inspect the wetland areas where drilling operations are taking
2972 place. Carroll County has received only one visit from ODNR inspectors for many
2973 months. Carroll County emergency management agency now relies on reports from
2974 the gas companies to learn when wells be operation and production amounts of the
2975 wells.

2976 As long as the oil and gas industry is in Ohio it will continue to be volatile and
2977 dangerous. No matter where it is danger welcome. Just look at the documentary
2978 program that was shown on PBS called before the light switch. It is about the
2979 devastation in Dish Texas.

2980 Remember as land owners we have right. The protection of our help, land and
2981 traditional ways of life. Accurate information about the real impact gas industry. We
2982 should have the right not to have our air and water damaged. To not have our
2983 property values reduce by the view of the oil well. Do not have a quiet country road
2984 turned into a main truck traffic Highway. We had no idea what we were for. Trucks
2985 running day and night, bright lights coming from the drilling and noise like you
2986 would not believe.

2987 **Testimony of Haley Schurman**

2988 Westwood Lake Park: The Kibler well in Lordstown

2989 The last three years have been very hard, the residence of Westwood Lake mobile

2990 home park in Wethersfield Township Ohio. First, they built the road. Which was

2991 very loud and dusty four-month project.

2992 Then, they brought in the rig.

2993 So far, the problems are: 1. noise never ending. 24 hours a day. 2. Very bright lights

2994 shining directly into the park.

2995 Because of the efforts of some people, Wethersfield Township established the first

2996 well pad emergency civilian evacuation plan in the country.

2997 a worthy sacrifice for the energy our company so desperate?

2998 About three months of drilling, the drill rig was disassembled and transported to a

2999 meander watershed well site. All was quiet on the well pad, but we knew what was

3000 next. Fracking. Knowing diesel fracking pumps will burn 500 gallons these of fuel

3001 per hour, 24–7, for a week to 10 days straight! That chemical stench is bad enough.

3002 This intense diesel exhaust can be eliminated by using natural gas pumps Westwood

3003 Lake residents that with Township trustees and County asking them to request

3004 Halcon use these natural gas at the Kibler well site.

3005 What was Halcon response?

3006 For 4 long days and nights, the stench of the fracking process trespassed into the
3007 Westwood Lake Park. The stench was terrible. Then they just went away. Peace and
3008 quiet for about one then they lit the flare! The well is now in completion stage. Then
3009 they turned up the flare. The noise, thick air, the chemical stench was pretty nasty.
3010 Everyone had a metallic taste in their mouth.

3011 This nightmare lasted over three months! New rules in 2015 for green completion
3012 equipment! No flaring aloud! Right? Not so fast. On January 5, 2015 the flare was
3013 still John Williams spoke with Ohio EPA, and the rules do not stop flaring. The flare
3014 at Westwood Lake part is for years, and when the green completion fails, like it does
3015 several times the flare goes into hyper jet engine mode until the well problems are
3016 solved.

3017 Then they brought the rig back and started all over. This time, Halcon had a few
3018 other techniques to teach us. First, one day during the drilling process, I saw a large,
3019 dusty looking cloud flow from the drilling pad, over the lake, and a large section of
3020 mobile homes in the park. It was reported later at a Trumbull County commissioners
3021 meeting, that Halcon was using air pressure instead of water to drill the well. What
3022 about BTEX and radioactivity they were throwing down? Was there any? Nobody
3023 knew.

3024 Then another lesson: stimulating the well with Witt. We were told that the County
3025 commissioners that nitrogen is 78% of our atmosphere and is no problem. I ask what
3026 about the BTEX that is released with it since it comes from the Wells horizontal leg.
3027 Nobody knew.

3028 Many people and Westwood Lake Park were exposed to many different potentially
3029 harmful chemical admissions. How many got sick? How many are sick today? How
3030 many will show signs of harm tomorrow? Many people found it harder to breathe
3031 during the fracking and flareing processes.

3032 We don't really know how many are still having issues, but we know of a few. On
3033 separate visits to the park, I smelled a chemical smell "whiff" every now with every
3034 now and then. One 80-year-old man, who never had a skin condition his life now has
3035 a head to toe rash, lasting now for 18 months. Doctors can find no cure. This man's
3036 rash looks very similar to the rash on my friend Randy Moyer. Randy drove a water
3037 truck for oil and gas and Bedford County, Pennsylvania.

3038 The Kibler well has two active frack legs in production. This site will host eight legs.
3039 The current conditions will be four times worse when completed. For the life of the
3040 Wells!

3041 **Meander Testimony presented by John Williams**

3042 The Cadle Well, North Jackson, OH

3043 SAD STORY. ODNR failed us. OEPA could care less.

3044 Upon discovery of a horizontal frack pad being built in Meander

3045 Reservoir's Drinking Water Source Protection Area, I called Kay Amy at

3046 OEPA in Brecksville and asked her how she could allow this. Kay told

3047 me that she knew nothing about it. She called me back after

3048 investigating this and said: "There is nothing to worry about, Tom

3049 Tomsatic at ODNR. has been working on that well for months!

3050 ODNR.'s Tom Tomastic is in Charge of underground Injection Control,

3051 not production wells. Why was the OEPA not even advised they were

3052 placing a frack pad in the Drinking Source Water Protection Area, about

3053 100' from a stream that leads directly to Meander.

3054 What could possibly go wrong? October 15, 2012

3055 Ref: 20inch-casing-failure-CADLEwell22 8343

3056 Ref: Email John Williams to Dr. Tony Ingraffea 2/27/2013

3057 Shotty Haliburton equipment. Gauges did not work. Why would they

3058 proceed without good gauges and why, if the ODNR. inspector is on site

3059 for all casing cement jobs could he allow this to happen with this shotty

3060 equipment.

3061 OUTCOME: 4' split in the 20" casing and a large crack in the

3062 intermediate casing. The cracks and splits were patched and cemented

3063 over. This "Tomasticized" casing is currently in operation.

3064 There are now 5 frack pads in the swap area.

3065 Sulfur Run Diesel Fuel Spill:

3066 Ref: OEPA District Office Investigation Report (DOIR)

3067 Spill ID# 150-50-0501

3068 OEPA Failed us because:

3069 1. They allowed Mr. Joe Public determine that the contaminant

3070 was diesel fuel. A citizen reported a diesel fuel spill in Sulfur Run to the Austintown

3071 fire chief, who reported a diesel fuel spill to OEPA, who ordered a simple VOC test

3072 near the reservoir. VOC's are a contingent of diesel fuel and diesel fuel is a contingent

3073 of toxic frack waste.

3074 2. The Pilot Truck center was found to have no leaks in the tanks

3075 and could account for all fuel. Yet, they still are going with the

3076 expertise of Mr. Joe Public.

3077 3. Estimated date of spill 3-13-15. OEPA on scene 3-19-15,

3078 requested MVSD to test for VOC's. OEPA said the reservoir does
3079 not appear to be affected. The reservoir was frozen over! If this
3080 were a Track waste spill with bromides, the water soluble would
3081 be long washed away in Meanders water plant.

3082 4. 3-24-15: DOIR pg. 9: "the VOC's detected are typical of
3083 disinfection byproducts formed when drinking water is chlorinated,
3084 and has nothing to do with the Pilot spill".

3085 Has any customer of MVSD had a problem with cancer causing
3086 trihalomethanes? Every Youngstown water customer received a
3087 trihalomethane warning letter.

3088 Back in 2011, the Niles City Council and Wethersfield Twp. trustees sent
3089 resolutions to the state that would ban injection wells for reasons of public
3090 health and safety. The ODNR could not be told what to do by locals. Both
3091 wells received permission to drill, and then inject.

3092 DESPITE THESE FACTS that ODNR. was made aware of.

3093 1. A 7 mile moratorium on injection wells is set for the Northstar 1 4.0 quake
3094 maker in Youngstown. The AWMS Well is 7.1 miles away!

3095 2. Downtown brick and mortar buildings 1/2 mile away, were not built to

3096 withstand earthquakes.

3097 3. July 28, 2014, with just 4 months of operation, AWMS causes a 1.7 quake.

3098 August 30, 2014 AWMS causes a 2.1 quake. ODNR claims only 2 quakes

3099 happened there on their website. We now know that they actually caused 108

3100 quakes. Each increasing in magnitude until ODNR. shut it down Sept.3,

3101 2014.

3102 12-20-16 Update: Although not required by ORC 1509, Every injection well permitted

3103 after the AWMS injection well in Weathers field (Niles) has been required to employ

3104 seismic monitors as conditions of the permits. GREAT! but could be better. The

3105 operator of the injection well is required to employ and pay for the seismic monitors,

3106 therefore the data belongs to the operator, not the public.

3107 OUTCOME: AWMS appealed ODNR's decision. This has been

3108 thru 4 hearings already. The final decision may come in August

3109 2017.

3110 Meander has probably suffered from quake damage. Before the 4.0 Youngstown

3111 quake, the dam was in need of \$4 million in repairs. After the 4.0, repairs at MVSD

3112 have now been estimated at \$28 million. MVSD spent BIG MONEY to have it looked

3113 into. I can't believe they would not side with caution and common sense.

3114 In early 2012, I had conversations with elected about open pits or
3115 impoundments planned for AWMS. I and my elected were told no open pits are
3116 planned for the site. Page 4 of Niles Injection Well.pdf

3117 AWMS has lied and misled us.

3118 AWMS and ODNR Lied about planned impoundments.

3119 AWMS and ODNR LIE about the number of earthquakes produced by the
3120 injection well.

3121 The 105 acre Gearmar property leased by AWMS have Rail Road tracks
3122 accessible to the property. When oil prices go back up, what are the chances that
3123 AWMS will build an open pit frack waste recycling center in the midst of this
3124 populated area? Would AWMS have any problem subjecting these people to the toxic
3125 trespass of BTEX in the air?

3126 AWMS is fighting to re-open the deep, quake maker well, placing the risk for a quake
3127 that will destroy Meander Dam, on the backs of the 220,000 people who depend on
3128 this reservoir for life sustaining water.

3129 Will they do it. I'd bet on it.

3130 **Testimony of Teresa Mills**

3131 My name is Teresa Mills; I live in Grove City Ohio. I don't have anything officially

3132 written, I shouldn't have done this, but anyway, I do not live in the gas patch, my
3133 home is not threatened, but everyone that you have heard testify today and everyone
3134 that testified in Athens, I work with them personally. I hear their stories; I cry with
3135 them because their rights have been violated, we are human beings, we are citizens
3136 of the United States of America, not a third world country. But our citizens are being
3137 treated as third world citizens; they are denied access to information, they have to go
3138 through armed guards with dogs to go to a public meeting.

3139 This is America, that is a human rights violation. You ask about laws and regulations
3140 our state legislature passes legislation that says you shall; you shall write rules, you
3141 shall do this. Six years we've been waiting on rules that have yet to be written. Some
3142 of the rules that were discussed today are not being turned into rules at all they are
3143 now being classified as terms and conditions. Terms and conditions are not
3144 enforceable by law, so they are doing everything they can to prevent from writing
3145 rules. Citizens do not have access to information. I had to teach myself how to use
3146 ODNR database, that's called the (RBDMS) Risk Based Data Management Systems,
3147 you have to have special software to get into that database, and it costs hundreds of
3148 dollars. So I was able to, with the University, Ohio University, I was able to provide
3149 a group in Athens County who had the wells with the highest volume of fluid

3150 injected. I was able to provide them and teach them how to use this database. They
3151 are now able to go through and look at all of the state inspection reports on every
3152 well in the state of Ohio. The only reason they could do that is because we were able
3153 to get money to provide them. So that is an un-equal protection under the law. We
3154 have unequal protection not only from state to state but from city to rural. Example,
3155 in Torch, Ohio, they do not have to have lightning arrestors on the tanks because it's
3156 a rural community, but if this was in if it was in Brookfield, Brookfield will have to
3157 have lightning arrestors because it's rural, I mean urban, so it's and that that is an
3158 equal protection, as I said under the law. That is a human rights violation citizens are
3159 not supposed to be treated differently just because of the location of where their
3160 homes are.

3161 **Testimony of Charles Marinelli**

3162 Hello my name is Charles Marinelli. This letter is in reference to damage that occurred
3163 to our well during and after the Blott road drill site was being established and was
3164 completed.

3165 This is a brief summary:

3166 Our well is a 300+ foot deep water well 47 feet static level. Prior to drilling the Blott
3167 gas well, we had soft clear alkaline water (PH 8), after the drilling we now have a

3168 dramatic change, our water is now very hard, very acid (PH 6) and loaded with iron.
3169 The iron content prior to the Blott well was 210 UGM, and now it is 147,000 UGM.
3170 This analysis was done before and after the Blott well drilling, by Cardinal lab; and
3171 by the Ohio Department of health at a cost of \$260 each plus \$12.
3172 The following are the detailed sequences of our history: about two weeks to the
3173 completion of the Blott site I was awakened at about 2 AM by sounds of grinding and
3174 pounding. It was if the grinding was on a metal pipe under our house, it lasted several
3175 hours, I then went back to bed. The following day mud came up into our filters. This
3176 mud continued to come up periodically every few days, (more or less).
3177 Then one of our filters trapped small metal (bright) grindings like small sparkling
3178 diamonds,
3179 Then on May 16, 2016, our house rumbled, (about noon.) Then one or two days later,
3180 red thick tomato sauce like water started appearing. This lasted for months at a time,
3181 everyday, and then at times it would turn orange then back to red. This was continuous
3182 day after day. In order to get our water to the orange I would have to pump out about
3183 600 gallons of water a day and we went from changing filters
3184 once every six months to every 10 days, and also shocking the well every six weeks
3185 with special expensive well treatment chemicals, this has been to no avail, as of this

3186 date.

3187 History

3188 Our static level has changed from 47 feet to 27 feet as (stated above) the pump motor
3189 (Swiss made) was change August 1 of 2012, at a cost of \$3,700. The old pump was
3190 clean, no red it all. The pitless has been checked for leaks which is okay. Our water
3191 was tested prior to the gas well-being drilled, and after, at a
3192 cost \$260 each.

3193 Our 10 inch filters are changed every 10 days at a cost of \$50-\$60. Our hydrogen
3194 peroxide system is pumping 200 ppm to oxidize iron in a 5 foot 1,200 deionization
3195 filter and a 5 foot carbon filter. The deionization medium needs only to be changed
3196 in the tank seven years; ours is new and may need to be changed in a very short time.
3197 Also our gauges, and pressure regulator and valve may need to be
3198 changed.

3199 As of this date we have talked to our Township trustees, and commissioners. We have
3200 also been advised to talk to our tv and radio channels investigative reporters, the EPA.
3201 We have decided to first contact you directly to see if you have any ideas as how to
3202 remedy the problem. Also at times I find small droplets of oil, or what seems like oil,
3203 I also have water samples before and after your well being drilled, and also filters,

3204 with test results.

3205 We have talked with to three geologists, one in Texas, one at Kent St University and
3206 Kentucky St University, names upon request. The next geologist we will contact is Dr.
3207 Ray at Youngstown State University.

3208 **Testimony of Sandra Keevert**

3209 Although my home has been in Barnesville, Ohio in Belmont County for the past 35
3210 years; I've either lived or worked in Monroe County, Ohio for a large part of my life-
3211 For over 50 years I went to school, taught, or lived in the county.

3212 At the time of my retirement in 2010 had worked in Hannibal, Ohio for over a decade.

3213 Therefore, in 2014 when I heard of uncommon accidents near there, I became curious;

3214 then concerned. I heard of an explosion, fire, and an evacuation. My mind reflected

3215 back to around 2005 when at a teachers' meeting our principal was discussing various

3216 emergency scenarios and procedures to follow. One topic was what gases rise and

3217 which ones stay low® I thought of my former students, their families, and others I

3218 knew who lived in low-lying communities along the Ohio River in Hannibal, Sardis,

3219 and Clarington, and of the nearby hilltop communities of

3220 Antioch, and Round Bottom. What, if any, impact would the incidents have on them?

3221 How is everyone? What damage may have been done? Near Hannibal, Ohio, on June

3222 28, 2014 a chain of events began, with many situations being avoidable if more
3223 planning and care had been taken. A hydraulic line broke, sprayed fracking fluid over
3224 hot well pad areas, and caused flames to rise from chemicals, tires, and 20 truck so.

3225 The only paid fire fighter in Monroe County, Phillip Keevert, upon viewing the site
3226 from afar as he approached while responding, saw the coal-black smoke and thought
3227 a bomb had exploded. When fire fighters arrived a Statoil employee told them the
3228 company didn't really want them to fight the fire, and Keevert said that Statoil kicked
3229 the fire fighters off of the well pad several times. For seven hours' firefighters' radio
3230 equipment wouldn't work in that rural area because a communication truck was
3231 needed, Monroe County didn't have one, neighboring Guernsey and Athens' counties
3232 trucks were in garages being repaired, so they had to wait seven hours for a truck to
3233 arrive from Columbus, roughly 100 miles away.

3234 A company employee told the fire fighters that the chemical disclosure papers were
3235 currently unavailable since they were in a trailer that was on fire, on the well pad.

3236 Within a few hours a copy of the papers was retrieved from a nearby town and
3237 delivered at the well pad. During this time the fire fighters were unsure of what extra
3238 protection was needed, and what if any hazards may affect people, animals, and/or
3239 plant life-

3240 It took the U. S. Environmental Protection Agency, and Ohio Environmental
3241 Protection Agency five days to get the full list of chemicals which had entered into the
3242 local Opossum Creek; polluting the waterway. An EPA report indicates the blaze
3243 caused benzene; chlorides; xylene; and toluene to flow into the creek. Records show
3244 9,000 gallons of diesel fuel; and 250 gallons of hydrochloric acid burned during the
3245 fire. United States EPA documents show that 70;000 fish, frogs, gray fish,
3246 salamanders, and other aquatic life were killed.

3247 Then, in December of 2014, another well pad accident occurred near Hannibal, in
3248 Sardis; Ohio. A well-head blowout happened while preparing for production. A cap
3249 was removed that could not be replaced. After a specialty well control company
3250 arrived from Texas to cap the well; to mitigate the chance of explosion, the gas
3251 changed direction from downward to up into the air. A pipeline company
3252 representative said the company did not believe the well head caused environmental
3253 damage because 97 per cent of the gas was methane. The unknown amount of
3254 colorless, odorless, flammable gas, called methane, can seep into drinking water in
3255 ground-fed wells, which can cause neurological and gastrointestinal problems, and
3256 also hair loss, Later the Center for Disease Control said there was not long-term
3257 exposure to radium; however long periods can cause anemia, cataracts, fractured teeth,

3258 and certain cancers-

3259 Evacuated were 20 to 25 people, while others chose to stay in their homes. Those
3260 leaving were allowed to return home briefly during the day, but not at night. After six
3261 days the evacuees were still having trouble getting answers from Magnum Hunter, the
3262 drilling company. Only volunteer fire fighters were talking with them, and they weren't
3263 being told anything either

3264 One evacuee, who can see three well pads from her house said she expected things
3265 like this to happen, and that a lot of people just thought of the money. Another evacuee
3266 said the jobs and money that the oil and gas creates doesn't come close to outweighing
3267 the risks. He also said he didn't believe the tradeoff was worth it, and felt the valley
3268 had sold its soul to the devil.

3269 During the same year I heard of a pipeline explosion on Mellott Ridge, near
3270 Beallsville- I learned that it was an eight-inch natural gas condensate pipeline, which
3271 the Ohio Department of Natural Resources isn't responsible for, but the Department
3272 of Hazardous Materials is- A company spokesperson announced the cause was
3273 undetermined at the time; and there was minimal impact.

3274 Ohio Township in Monroe County, where few earthquakes have ever been reported;
3275 had three earthquakes, just days apart, in the middle of December 2016, which were

3276 of 2.0 magnitude or slightly higher. Some reports said there were no shaking beds, or
3277 items on shelves; while other people said their experience was the opposite.

3278 Again in Ohio Township an earthquake shook on April 2017, in Sycamore Valley,
3279 near Graysville;

3280 In Wayne National Forest. This one was stronger, 3.0 magnitude, and went three and
3281 one-half miles below ground. Should we stress the inactive injection well close by; or
3282 the four injection wells within 20 miles? In the first part of June 2017, a 3.2 magnitude
3283 earthquake shook within a few miles from Calais; In Monroe County, near Batesville
3284 in Belmont County, close to Seneca Lake. For several miles beds, objects on shelves
3285 and tables moved, and quite close to the epicenter a home's
3286 foundation cracked.

3287 The U.S. EPA Final Assessment of Hydraulic Fracking on Drinking Water Resources;
3288 which was published in February of 2017, stated that hydraulic fracking can impact
3289 water at all stages with frequency and dependency based on the combination of
3290 hydraulic fracking activities and local and regional scale factors. An inadequately
3291 cemented gas well could cause the movement of methane into local drinking water
3292 resources. Underground water wells could have leaks
3293 themselves. On human health impacts the EPA further stated that more information

3294 on the chemical concentration is needed and that relative hazard potential assessments
3295 of drinking water is needed at local and/or regional scales, using a multi-criteria
3296 decision analysis approach. Whose responsibility is that?

3297 As with most issues, there are two or more viewpoints, as some peoples' opinions
3298 disagree with what others consider to be proven facts. At times information is absent,
3299 while the same information is present in other places, depending on how a person, or
3300 group wishes to steer opinions. This certainly applies with fracking.

3301 New regulations are continuing to be passed for and against stricter guidelines. Who
3302 will win?

3303 Who will lose?

3304 **Recommendation from both the Athens and Youngstown tribunals**

3305 **Athens recommendations**

3306 “It is strongly recommended that moratorium should be issued preventing
3307 exploratory and extractive fracking injection wells and associated operations until
3308 such time as a full, publicly funded, industry-independent, evidence-led Human
3309 Rights Impact Assessment has been properly undertaken and provided in the public
3310 interest. The evidence of extreme health impacts of fracking and infrastructure
3311 support the urgency of considering the human rights impact immediately.

3312 This assessment should provide:

3313 a) A comprehensive scientific examination of human rights-impacting activities and
3314 effects on climate change connected with fracking, injection wells and related
3315 infrastructure;

3316 b) An in-depth analysis of the legal obligations placed upon the US national and
3317 local government and public authorities with regard to fracking, injection wells and
3318 associated infrastructure;

3319 c) A thorough and thoughtful human rights-based assessment of the balance of
3320 public interest with regard to corporate and economic benefits of fracking against the
3321 risk of serious and irreversible human, social, cultural and environmental damage;

3322 (d A thorough analysis of the potential human rights impacts of fracking on future
3323 generations. It is a grave failure of responsibility for the US government to continue
3324 to proceed with fracking, injection wells and related infrastructure construction and
3325 development without adequate assessment of the human rights impact."

3326 **Youngstown recommendations**

3327 **Youngstown judges agreed with the Athens recommendations and added one,**

3328 **(E) below**

3329 “It is strongly recommended that moratorium should be issued preventing
3330 exploratory and extractive fracking injection wells and associated operations until
3331 such time as a full, publicly funded, industry-independent, evidence-led Human
3332 Rights Impact Assessment has been properly undertaken and provided in the public
3333 interest. The evidence of extreme health impacts of fracking and infrastructure
3334 support the urgency of considering the human rights impact immediately.

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3337 effects on climate change connected with fracking, injection wells and related
3338 infrastructure;

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3340 local government and public authorities with regard to fracking, injection wells and
3341 associated infrastructure;

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3343 public interest with regard to corporate and economic benefits of fracking against the
3344 risk of serious and irreversible human, social, cultural and environmental damage;

3345 (d) A thorough analysis of the potential human rights impacts of fracking on future
3346 generations. It is a grave failure of responsibility for the US government to continue

3347 to proceed with fracking, injection wells and related infrastructure construction and
3348 development without adequate assessment of the human rights impact."

3349 e) an analysis of cases in which our schools and our universities fail to provide free
3350 and open environments for teachers and faculty to discuss the issues and concerns
3351 associated with shale gas development and the cases where such open discussions
3352 are impeded by corporate influence and pressure.

3353