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Ligonier Township Board of Supervisors  
One Municipal Park Drive  
Ligonier, Pa 15658

RE: Written Testimony for Public Hearing on the Proposed Oil and Gas Ordinance

Dear Board Members:

PennFuture is a public interest, membership organization whose purpose includes advocating for the public's right to clean air, pure water, and to the preservation of the natural, scenic, historic and esthetic values of the environment, as guaranteed by Article I, Section 27 of the Pennsylvania Constitution. PennFuture works to create a just future where nature, communities, and the economy thrive. PennFuture submits these comments on behalf of members who own property and reside in Ligonier Township; members who enjoy a variety of private and public natural resources situated in Ligonier Township, and who contribute to the economy of Ligonier Township; and the Loyalhanna Watershed Association, whose 1,000 members have worked tirelessly for forty-four years to conserve 2500 miles of stream in the Loyalhanna Creek Watershed and restore damage to those streams harmed by past industrial practices.

**Shale gas development is a heavy industrial activity that does not further the purposes or is compatible with other land uses permitted in the Agricultural District.**

The proposed Ordinance allows unconventional shale gas development as a conditional use in the district zoned for agriculture. The Ordinance describes the purpose of the Agricultural (A) District as being to preserve and support the Township's farming areas. The Ordinance also states that suitable uses in the Agricultural District include agriculture, timber harvesting, forests and game lands, passive recreation, farmer's market and "other compatible uses."

In an attempt to balance shale gas development and citizens desire to limit industrialization of their township, the Ordinance makes a mistake that other townships in Pennsylvania have made, which is that the Ordinance does not recognize that shale gas

development is an industrial activity, and that attaching numerous site specific conditions to that use will not transform it from an industrial to a more benign land use.

The shale gas industry would have the township believe that once an access road and pad are constructed, horizontal wells are drilled and fracked expeditiously, and most if not all of the heavy industrial activity on the property will be completed within 90 days. What is left behind, according to industry person whom I have seen testify, is a relatively serene setting with a few well heads and storage tanks, all of which will be compatible with the continued use of the surrounding property for everything from a farm to a residential neighborhood.

As shown in a number of zoning hearings across Pennsylvania, the facts belie the picture that the industry would paint: the extraction of shale gas is a heavy industrial activity. Once an access road and well pad are constructed, large drill rigs must be brought into the site to drill the well. The rigs vary in size, with smaller rigs used to drill the top hole and the largest rig used to drill the horizontal portion of the well. The drilling occurs 24 hours per day, seven days per week, during which the entire site must be lighted. The impact of light pollution on the character of a rural community is rarely addressed during the application process. The drill rigs are operated by large diesel engines, which generate substantial noise and toxic air emissions. These emissions include known carcinogens such as benzene, and their short-term impact on ambient air quality is not being monitored by the state or federal government. While continuing to evolve, the current industrial practice is to drill multiple wells per pad. Companies had begun developing Pennsylvania's shale gas resource by drilling a single well per pad. Range Resources stated in its most recent annual report for investors that its plans are to develop eight to twelve wells per pad. Each well that is drilled extends the period of intense industrial activity at the property.

Fracking involves the process by which millions of gallons of water, sand and chemicals are pumped underground to break apart rock in order to release gas. The fracking operation is perhaps the loudest part of the shale gas development process, absent an explosion or other unexpected event. The water for the fracking process must be delivered to the site by pipeline or trucks. Persons often talk about "each well" being fracked, but the process actually involves multiple frack operations per well. The frack company can only affect a limited length of well with each frack, so the number of fracks per well depends on the length of the horizontal segment of the well. The longer the horizontal segment, the more fracks per well, meaning the more truck traffic on township roads, more air emissions from diesel engines, extended period of loud noise, and extended period during which heavy industrial operations occur on the property.

During the application process, the companies are often decidedly vague on a number of issues bearing directly on whether the proposed use is similar and compatible with other permitted uses. For example, the companies will often not reveal the total number of wells to be constructed on the property, preferring to list only their initial plan for one or two well. In a recent hearing in Lycoming County, Inflection Energy officials refused to testify whether, upon obtaining a conditional use approval, it planned to return to the pad to re-frack existing wells, the total wells planned for the site, and whether it would develop resources in other horizons such as the shallower Devonian or deeper Utica. Range Resources indicated in its recent investor report that it intends to use horizontal drilling and hydraulic fracturing to access gas in the shallower Devonian horizon. In such circumstances, the company's lack of specificity about future plans camouflages the full impact of the approval being sought, leaving the township to realize after the fact that its action changed the character and nature of its district in a manner not contemplated at the time.

During drilling operations, companies engage in other operations that make plain the activity is industrial. For example, the company uses the property to store hazardous materials and industrial wastes from drilling and fracking operations, typically including diesel fuel, antifreeze, motor oil, hydraulic fluid, drilling soap, waste oil, synthetic oils, emulsifiers, wetting agents and rig wash. Dry materials such as barite, calcium chloride, lime, oil absorbent and vicosifiers are also ordinarily used on the site. During operations, wastewaters such as flowback and brine are stored at the site. As a result, the companies develop Pollution Prevention and Control Plans that address environmental and public safety issues for large and small spills of these polluting substances. The industrial wastes generated by the industry would be characterized as "hazardous" but for statutory exemptions obtained by the oil and gas industry under federal and state laws. Nonetheless, that the waste is not legally "hazardous" does not alter that the wastes are dangerous to human health and the environment, and that they underscore the industrial nature of the operations. Notably, other than for the natural gas industry, no other industrial waste storage or processing facilities are permitted in the Agricultural District.

Finally, the industrial nature of the operations is characterized by the fact that the industry maintains and coordinates safety and evacuation plans with local emergency response coordinators. While not a frequent occurrence, explosions and fires at well pads in Pennsylvania and elsewhere have been well-documented. When they occur, the explosions have been dramatic and caused safety personnel to evacuate and establish a safety zone at a half mile radius from the well site.

The fundamental challenge with the existing proposal is that it allows an industrial use to be located in a district that does not further the stated purpose of

preserving and supporting the Township's farming areas. Further, the Ordinance allows incompatible uses to be located in the Agricultural District. Shale gas development is not similar to and compatible with other permitted uses such as agriculture, timber harvesting, forests and game lands, passive recreation, and farmer's markets. Indeed, the Ordinance defines shale gas development as a type of "mineral extraction." Yet, the Ordinance only authorizes mineral extraction as a permitted use in the Industrial District. Despite recognizing, then, that mineral extraction is properly characterized as an industrial use, the Ordinance fails to explain why shale gas development should be characterized differently than other types of mineral extraction and is consistent with uses otherwise permitted in the Agricultural District. See *Robinson Township v. Commonwealth*, 83 A.3d 901 (Pa. 2013) (shale gas development is an industrial use and allowing it across all zoned districts is arbitrary and a violation of the Constitution); *Tinicum Township v. Nowicki*, 99 A.3d 586 (Pa. Cmwlth. 2014) (agricultural operations must have some connection to or use of the land itself, such as agricultural, horticultural, silvicultural, or aquacultural).

**Conditions will not alter the fundamental nature of shale gas operations.**

The Ordinance proposes to allow shale gas operations as a Conditional Use in the Agricultural District, under the premise that the Township will impose conditions on its approval to prevent adverse effects on the community and neighboring properties. There are two difficulties with this approach.

Imposing conditions on an industrial use will not change the nature of that use, and, as a result, shale gas development throughout the Agricultural District will alter the fundamental character of the district. PennFuture recently had an opportunity to brief exactly this issue in court. In Fairfield Township, Lycoming County, the Board of Supervisors issued a conditional use approval for construction and operation of an unconventional shale gas pad in an R-A District. The Township urged that the Court consider the fourteen conditions because they were intended to ensure compatibility of the proposed use with other uses in the R-A District. The Court of Common Pleas refused to review the fourteen conditions, instead holding that the company failed to carry its initial burden of proving that the proposed use was similar to and compatible with other permitted uses in the R-A District. The Court recognized that compatibility was a threshold determination that the township had to make before any use could be approved in a particular district.

The authority to impose special conditions in a conditional use approval derives from section 10603(c)(2) of the Municipalities Planning Code, which provides that a governing body "may attach such reasonable conditions and safeguards, other than those

related to offsite transportation or road improvements, in addition to those expressed in the ordinance, as it may deem necessary to implement the purposes of this act and the zoning ordinance.” 53 P.S. § 10603(c)(2). *Coal Gas Recovery, L.P. v. Franklin Twp. Zoning Hearing Board*, 944 A.2d 832 (Pa. Cmwlth. 2008). The purpose of special conditions is to address individual aspects of a particular use, *when that use is of a kind that has already been determined to be fundamentally compatible with other permitted uses in a particular district*. See, *Levin v. Board of Supervisors*, 669 A.2d 1063 (Pa. Cmwlth. 1995); *Clinton County Solid Waste Authority v. Wayne Twp.*, 643 A.2d 1162 (Pa. Cmwlth. 1994).

The suggestion that conditions will change the fundamental nature of a proposed land use is flawed. No Pennsylvania court has held – and there is no logical basis for holding – that a condition under section 10603 will transform a use that is fundamentally incompatible into one that is compatible. Special conditions do not possess alchemical properties; they cannot make a use into something that it is not. The Municipalities Planning Code, indeed, the Pennsylvania Constitution, require that only compatible uses be authorized in the same zoning district because substantive due process considerations bar municipalities from allowing incompatible uses in a zoned district where citizens have made investment-backed decisions in reliance on that ordinance. *Robinson Township v. Commonwealth*, 52 A.3d 463 (Pa. Cmwlth. 2012).

Second, it is likely that the Township lacks the authority to regulate those aspects of the shale gas industry that makes its process industrial in nature. Prior to enactment of Act 13, municipal power to regulate the gas industry was controlled by the Supreme Court’s decision in *Huntley and Huntley, Inc. v. Borough of Oakmont*, 964 A.2d 855 (Pa. 2009). That case has been widely characterized as allowing municipalities to regulate “where” gas drilling occurs, but not “how” it occurs. Among other things, the General Assembly sought to, when passing Act 13, to also remove municipal government’s ability to regulate the “where.” The Supreme Court, in *Robinson Township*, struck down those sections of the law that sought to take away municipal government’s ability to regulate “where” through local zoning. Most legal commentators seem to accept that the Supreme Court’s decision had the effect of putting municipal governments back to where they were after *Huntley* was decided, that is, that municipalities can regulate “where” but not “how.”

What makes the shale gas industry industrial in nature is “how” it operates, and not “where” it operates. That is, shale gas development is industrial in nature because it uses large equipment to develop the wells that extract the gas, it uses hydraulic fracturing to break up the rock, it generates contaminated soil, drill cutting and wastewater that must be stored and then transported for disposal, it uses industrial lighting that shines 24 hours

per day during development of the wells, and it uses large, pollutant emitting, diesel engines to drive the key operations at the site. Because the township lacks the authority to alter these practices (nor should it, necessarily, even if it had the authority), any conditions that it would impose through its Conditional Use process would not alter the fundamental character of the proposed land use.

**Allowing shale gas development throughout the entirety of the proposed Agricultural District will industrialize and alter the fundamental character of the Township.**

The citizens on behalf of whom PennFuture submits this comment letter have concerns that re-zoning much of what had been a Conservation District into Agricultural, and allowing shale gas development throughout that Agricultural District, will alter the fundamental character of the Township. Based on my experience in other townships across the shale gas play, the concerns of the citizens are well-founded.

Range Resources drilled the first Marcellus Shale exploratory well in Pennsylvania in Mt. Pleasant Township, Washington County. PennFuture recently represented citizens there opposed to location of two shale gas wells near the Fort Cherry school complex. While Range ultimately withdrew its Conditional Use applications for those wells, the testimony provided by local citizens about how their daily lives have changed with shale gas development is noteworthy. While there was certainly testimony by individual landowners to the benefits of leasing their land for gas development, the vast majority of persons in the community did not become overnight millionaires from natural gas development – especially with the depressed market prices for gas, and after the costs of processing and delivering the gas to the market were deducted from the well-head price.

Many persons testified to the negative impacts of gas development that you do not hear about on television and radio commercials – being crowded off of narrow country roads by large, fast moving trucks; fearing for their children waiting to be picked up by school buses along truck routes; increased noise and light pollution on what had been dark, quiet summer evenings; depressed property values for homes located near gas wells and compressor stations; increased anxiety about air pollutants being breathed by children; increased incidents of childhood asthma and upper respiratory incidents; and the general loss of tranquility that existed prior to the onset of the industry.

The Township's current comprehensive plan relies on conservation of large areas of natural beauty within the Township in order to develop the area economy. The Supervisors have stated that the Comprehensive Plan needs to be revised, and that the

Ordinance is being adopted without substantial reliance on the Plan. The comment has also been made that, at that time, the Ordinance can be revised and amended.

We have concerns that doing so puts the cart before the horse, as it should be the Comprehensive Plan that guides and directs the adoption of the Ordinance, not the other way around. If it will, indeed, take two to three or more years to revise Ligonier's Comprehensive Plan, the concern is that the fundamental character of the Township, or in portions of the Township, will begin to change before the Plan can be revised. In effect, shale gas development will be allowed to drive planning for the Township, rather than planning driving where shale gas development should be allowed.

**Because of serious constitutional concerns about the proposed Ordinance, the Township should separate those portions of the Ordinance that address shale gas development and extend the curative amendment process 180 days.**

As described above, the proposed Ordinance raises serious concerns about its legality. For these reasons, the township should delay that portion of the ordinance regulating shale gas development for another six months. This will allow for additional dialogue and consideration of expert advice on how the township could proceed with regulation of the industry in a manner that is more likely to avoid costly litigation and improve the proposed ordinance.

While we understand that the Supervisors would like to “just make a decision” and move on from the rancor that sometimes arises with these important issues, the decisions that the township makes now will affect Ligonier Township and its residents for generations to come. These types of decisions should not be rushed. Because the demand and price for dry gas are low, there is no significant need from the gas industry to finalize the regulations at this time.

Section 609.2(4) of the MPC provides that a township may extend the curative amendment process another 180 days based on changes in the law, including specifically appellate court decisions, that occur after an ordinance has been declared invalid. Since Ligonier Township invalidated its ordinance in December 2014, the Commonwealth Court issued its decision in *PEDF v. Corbett*, which I previously sent to your Solicitor. This decision was the first appellate court decision interpreting the Supreme Court's *Robinson Township* decision. Importantly, while the Commonwealth Court noted that the plurality opinion of the Chief Justice in *Robinson* was not binding, the Court also recognized that none of the Supreme Court justices, even though in the minority, disagreed with the Chief Justice's fundamental reading of Article I, Section 27 of the Pennsylvania Constitution. As a result, though the Commonwealth Court rejected the

arguments made by PEDF, it did so only after applying the public trust doctrine principles articulated by the Supreme Court. As such, it seems apparent that the Commonwealth Court was persuaded by and intends to follow the plurality opinion's interpretation of Article I, Section 27 of the Pennsylvania Constitution.

At its most basic level, the Environmental Rights Amendment requires a government agency to consider, before taking action, the potential environmental effects of that action on its citizens' rights to clean air, pure water, and the preservation of environmental values. *Robinson Township* at 952. To be valid, the action "must, on balance, reasonably account for the environmental features of the affected locale." *Robinson Township* at 953.

The Township's decision to allow shale gas development throughout its Agricultural District suggests that it has failed to comply with its obligations under Article I, Section 27. At its very core, the Environmental Rights Amendment stands for the proposition that local governments must, in applying zoning laws, obtain sufficient information about the environmental effects of its decisions so as to ensure protection of its citizens' rights under Article I, Section 27. *Robinson Township* at 952. It is concerning that the Township has not engaged in an adequate inquiry into the environmental effects of its decision before deciding to rezone a substantial portion of the township from Residential and Conservation to Agricultural, and to allow shale gas development throughout that District. Such a failure could likely be determined by a Court to be a violation of the Environmental Rights Amendment.

Considering all of this, it would be prudent for the township to take as much time as allowed under the MPC to make these important decisions. Because of the recent changes in the law surrounding citizens' substantive due process rights, and the Environmental Rights Amendment, we urge that the Township extend the curative amendment process 180 days under Section 609.2(4) of the MPC. PennFuture would welcome the opportunity to further engage with the Township in order to attempt to address some of these issues during that period.

### **Miscellaneous Comments**

1. The township should extend no-drill protections to natural areas along the southeast side of the township. This area, which includes the Forbes state forest and Laurel Mountain State Park, are important tourist attractions as well as a valuable part of the Rolling Rock Creek watershed. The goal here would be to provide a significant buffer around these areas so that drilling does not encroach on individuals recreational experiences, which could then cause economic harm to the local economy.



2. The Township should extend the stream buffer to all perennial and intermittent streams in the township, and its width should not be reduced based on the size of the stream. Smaller headwater tributaries are, in fact, more susceptible to harm from pollution than larger streams because they have less flow, and the biotic communities that they support are more fragile, and often tend to be more diverse than those found in larger streams. From a scientific perspective, it does not make sense to reduce protections for smaller streams. Therefore, I would urge that the township maintain the same setback protections for all streams.

3. The township should consider elevating protection for children by establishing a set-back of at least one-mile radius around its schools. As you are aware, children spend a significant portion of their time at and about schools. They are also some of the most susceptible members of the population to air pollution. There are many studies that demonstrate a direct link between air pollution and childhood impacts, including aggravations of conditions such as asthma. The McKenzie study, which I previously provided to the Township Solicitor, suggests a connection between proximity to well pads and neonatal health effects. While the public health data about the effects of fracking is not well developed, we do know that there will be an increased risk of exposure to benzene due to increased truck traffic and large diesel generators used on well pads. Children, with developing lungs and longer lifespan, are more susceptible to developing cancer from exposure than are adults. Any public health official will explain that children are not simply little adults – because of the stage of development and increased activity, they are more susceptible to airborne pollutants. Furthermore, most schools in the shale gas play have not had the opportunity to revise its all hazards plan to account for risks associated with shale gas development. For this reason, it would be prudent to be cautious about protecting the youngest and most vulnerable of our population and ensuring an adequate safety zone around all schools in the township.

4. The township should identify and extending no-drill protection to areas of the township where there may be residential developments that would be adversely affected by nearby drilling if those communities developed in areas that were previously zoned residential. Persons that purchased homes in a residential zoned district have reasonable investment-backed expectations based on that prior zoning. If those protections were removed and industrial operations were allowed to locate in an area that was previously zoned residential, any impacts to residences in that area would raise significant constitutional concerns.

5. The township should establish a termination date for conditional use approvals. This will prevent companies from obtaining and ‘sitting on’ conditional use approvals well before they plan to make use of that property.

6. Under §20-4(D), the minimum lot size for shale gas development is 50 acres, but location of the pad on that property is not specified. As such a well pad could be located as near as 250 feet to the next property. The minimum distance to the nearest residence should be increased.

7. Under §20-4(E), the minimum distance from a protected structure is 650ft and 2,640ft from a school. While we applaud efforts for an increased distance and awareness of gas activity near school districts, as stated above, the distance should be increased to ensure that no well is located nearer 5,280 ft (1 mile

8. Subsection 20-4(I) directly relates to truck routes and truck traffic. In addition to accounting for roadway jurisdiction, traffic, physical characteristics/conditions, location of school bus stops/routes, and the amount of residential units along potential routes, the proposed route should address proximity to streams and other sensitive natural areas, such as parks.

9. Subsection 20-4(K) states “proper and adequate storm water run-off controls for driveways shall be installed to prevent concentration of run-off onto adjacent properties or public streets.” Objective standards for “proper and adequate” should be provided.

10. Subsection 20-4(O) addresses lighting at drill sites. The subsection states “No drill site lighting use for or associated with the drilling operation shall be positioned or directed in such a manner so that it shines directly upon public roads, adjacent property or property in the general vicinity of the drill site”. There should be a specified distance within the circumference of the drill site rather than the term “general vicinity,” which is not an enforceable limit.

Sincerely,

/s/ George Jugovic, Jr.

George Jugovic, Jr.  
General Counsel