

**To: PSATS Members:**

The following model zoning ordinance provisions for oil and gas exploration, extraction and development was created for use as a general template for townships to review and adapt to their own particular needs. Please keep in mind that this model should only be used as a helpful point of reference in developing or amending your zoning ordinance as it pertains to oil and gas well development. No assurances can be given regarding the enforceability of this model ordinance. Each township should confer with its own solicitor regarding this subject matter.

Zoning is purely optional on the part of municipalities, but is the sole means by which a township may establish specific areas of the municipality in which oil and gas well exploration, drilling, and development may be permitted or prohibited.

The Oil and Gas Act preempts local regulation of the operational aspects of oil and gas activities. However, the PA Supreme Court has upheld a municipality’s authority to impose reasonable zoning regulations upon oil and gas well exploration, drilling and development as authorized in the Municipalities Planning Code and the Flood Plain Management Act.

The following provisions are intended to serve as a model. It should be individualized, and all other possibly relevant factors considered, in order to meet each township’s specific needs.

**MODEL  
ZONING ORDINANCE FOR  
OIL AND GAS EXPLORATION <sup>1</sup>**

**(Township) Ordinance No. \_\_\_\_\_  
An Ordinance Amending Ordinance No. \_\_\_\_\_ of  
(Township), known as the (Township) Zoning  
Ordinance, providing for the regulation of Oil  
and Gas Exploration.**

\_\_\_\_\_ Township hereby amends Ordinance No. \_\_\_\_ known as  
the \_\_\_\_\_ Township Zoning Ordinance, by adding the  
following:

## **Section 1. PURPOSE:**

The purpose of this ordinance is to provide for the health, safety and welfare of the residents of \_\_\_\_\_ township, through zoning and flood plain management provisions, for the reasonable development of land for oil and gas drilling while providing adequate health, safety and general welfare protections of the township's residents. Oil and gas exploration, drilling and extraction operations involve activities that are economically important and will impact the township. Accordingly, it is necessary and appropriate to adopt reasonable requirements for oil and gas resource development so that these resources can be obtained in a manner that is economically remunerative, and that minimizes the potential impact on the residents of the township.

## **Section 2. DEFINITIONS:**

“Applicant” -- Any person, owner, operator, partnership, company, corporation and its subcontractors and agents who has an interest in real estate for the purpose of exploring or drilling for, producing, or transporting oil or gas.

“Building”-- An occupied structure with walls and roof with which persons live or customarily work. The term shall not include a barn, shed or other storage building.

“Collector Street”-- A public street or road which, in addition to providing access to abutting lots, intercepts local streets and provides a route for carrying considerable volumes of local traffic to community facilities and arterial streets.

“Department”-- The Department of Environmental Protection of the Commonwealth.

“Derrick” – Any portable framework, tower mast and/or structure which is required or used in connection with drilling or re-working a well for the production of oil or gas.

“Drilling pad”-- The area of surface operations surrounding the surface location of a well or wells. Such area shall not include an access road to the drilling pad.

“Fracking” – The process of injecting water, customized fluids, sand, steam, or gas into a gas well under pressure to improve gas recovery.

“Local Street” -- A public street or road designed to provide access to abutting lots and to discourage through traffic.

“Oil and Gas” -- Crude oil, natural gas, methane gas, coal bed methane gas, propane, butane and/or any other constituents or similar substances that are produced by drilling an oil or gas well.

“Oil and Gas Development or Development”-- The well site preparation, construction, drilling, re-drilling, hydraulic fracturing, and/or site restoration associated with an oil or gas well of any depth; water and other fluid storage, impoundment and transportation used for such activities; and the installation and use of all associated equipment, including tanks, meters, and other equipment and structures whether permanent or temporary; and the site preparation, construction, installation, maintenance and repair of oil and gas pipelines and associated equipment and other equipment and activities associated with the exploration for, production and transportation of oil and gas. The definition does not include natural gas compressor stations and natural gas processing plants or facilities performing the equivalent functions.

“Oil or Gas Well”--A pierced or bored hole drilled or being drilled in the ground for the purpose of, or to be used for, producing, extracting or injecting

gas, oil, petroleum or another liquid related to oil or gas production or storage, including brine disposal.

“Oil or Gas Well Site” -- The location where facilities, structures, materials and equipment whether temporary or permanent, necessary for or incidental to the preparation, construction, drilling, production or operation of an oil or gas well. This definition also includes exploratory wells.

“Operator”-- The person designated as the well operator on the permit application or well registration.

“Owner”-- A person, who owns, manages, leases, controls or possesses an oil or gas well.

“Natural Gas Compressor Station” -- A facility designed and constructed to compress natural gas that originates from an gas well or collection of such wells operating as a midstream facility for delivery of gas to a transmission pipeline, distribution pipeline, natural gas processing plant or underground storage field, including one or more natural gas compressors, associated buildings, pipes, valves, tanks and other equipment.

“Natural Gas Processing Plant” -- A facility designed and constructed to remove materials such as ethane, propane, butane, and other constituents or similar substances from natural gas to allow such natural gas to be of such quality as is required or appropriate for transmission or distribution to commercial markets but not including facilities or equipment that is designed and constructed primarily to remove water, water vapor, oil or naturally occurring liquids from the natural gas.

“Storage well”-- A well used for and in connection with the underground storage of natural gas, including injection into or withdrawal from an

underground storage reservoir for monitoring or observation of reservoir pressure.

### **Section 3. ZONING CLASSIFICATIONS<sup>2</sup>**

Subject to the provisions of this ordinance:

- A. An oil or gas well site, or a natural gas compressor station, or a natural gas processing plant, or any similar facilities performing the equivalent functions shall be considered a principal use by right within Industrial, Agricultural and Open Space Zoning Districts.
  
- B. An oil or gas well site which would be placed more than 500 feet from any preexisting building which is located off the property where the oil or gas well is sited may be permitted within the Residential or Commercial Zoning District(s) as a \_\_\_\_\_ {conditional use or special exception}. Otherwise, such siting and/or use shall be prohibited in residential and commercial zones.<sup>3</sup>
  
- C. A natural gas compressor station or a natural gas processing plant or any similar facilities performing the equivalent functions which would be located more than 1000 feet from any preexisting building which is located off the property where the natural gas compressor station or the natural gas processing plant or similar facility is located may be permitted in the Residential or Commercial Zoning District(s) as a \_\_\_\_\_ {conditional use or special exception}. Otherwise, such siting and/or use shall be prohibited in residential and commercial zones.<sup>4</sup>

**Section 4. APPLICABILITY:**

- A. This ordinance applies to all oil and gas well sites, natural gas compressor stations, and natural gas processing plants that will be permitted or constructed after the effective date of the ordinance.
  
- B. Oil and gas well sites, natural gas compressor stations, and natural gas processing plants that were permitted or constructed prior to the adoption of this ordinance shall not be required to meet the requirements of this ordinance; provided that any modification to an existing or permitted oil or gas well site that occurs after the effective date of this ordinance and materially alters the size, type, location, number of wells and other accessory equipment or structures, or any physical modifications to an existing natural gas compressor station or natural gas processing plant shall require compliance with and a permit under this ordinance.
  
- C. Federal or state law or regulation preempts ordinance requirements that conflict with federal or state statute or regulation. Township acknowledges that it is pre-empted from regulating the operational methods of the oil and gas industry and may only regulate land uses.

**Section 5. PERMIT REQUIREMENT:**

- A. No oil or gas well site, natural gas compressor station, or natural gas processing plant or an addition to an existing oil or gas well site, natural gas compressor station, or natural gas processing plant shall be constructed or located within       (township's name)       township unless a permit has been issued by the township to the owner or operator approving the construction or preparation of the site for oil or gas development or construction of natural gas compressor stations or natural gas processing plants.

- B. The permit application, or amended permit application, shall be accompanied by a fee as established in the township's schedule of fees.
  
- C. Any modification to an existing and permitted oil or gas well site that materially alters the size, location, number of wells or accessory equipment or structures, or any modification to an existing natural gas compressor station or natural gas processing plant shall require a modification of the permit under this ordinance. Like-kind replacements shall not require a permit modification.

## **Section 6. PRE-APPLICATION CONFERENCES: (optional)**

- A. Purpose.
  - 1. Before submitting an application the applicant is strongly encouraged to meet with the township staff to determine the requirements of and the procedural steps and timing of the application. The intent of this process is for the applicant to obtain necessary information and guidance from the township staff before entering into any commitments or incurring substantial expenses with regard to the site and plan preparation.
  
- B. Process.
  - 1. A pre-application conference is voluntary on the part of the applicant and shall not be deemed the beginning of the time period for review as prescribed by law. The pre-application conferences are intended for the benefit of the applicant in order to address the required permit submittals and are advisory only, and shall not bind the township to approve any application for a permit or to act within any time limit relative to the date of such conference.

## **Section 7. PERMIT APPLICATION:**

- A. The applicant shall provide to the township at the time of permit application:
1. A narrative describing an overview of the project including the number of acres to be involved, the number of wells to be drilled, and the location, and number and description of equipment and structures to the extent known.
  2. A narrative describing an overview of the project as it relates to natural gas compressor stations or natural gas processing plants.
  3. The address of the oil or gas well site, natural gas compressor station or natural gas processing plant as determined by the township or county for information of Emergency Responders.
  4. The contact information of the individual or individuals responsible for the operation and activities at the oil or gas well site shall be provided to the Township and all Emergency Responders. Such information shall include a phone number where such individual or individuals can be contacted twenty-four hours per day, three-hundred sixty-five days a year. Annually, or upon any change of relevant circumstances, the applicant shall update such information and provide it to the Township and all Emergency Providers.
  5. A location map of the oil or gas well site showing the approximate location of derricks, drilling rigs, equipment and structures and all permanent improvements to the site and any post construction surface disturbance in relation to natural and other surroundings. Included in this map shall be an area within the development site for the location and parking of vehicles and equipment used in the transportation of

personnel and/or development and use of the site. Such location shall be configured to allow the normal flow of traffic on public streets shall be undisturbed.

6. A location map of the natural gas compressor station or natural gas processing plant including any equipment and structures and all permanent improvements to the site.
7. A narrative and map describing the manner and routes for the transportation and delivery of equipment, machinery, water, chemicals and other materials used in the siting, drilling, construction, maintenance and operation of the oil or gas well site.
8. A certification or evidence satisfactory to the township that, prior to the commencement of any activity at the oil or gas well site, the applicant shall have accepted and complied with any applicable bonding and permitting requirements; and shall have entered into a township roadway maintenance and repair agreement with the township, in a form acceptable to the township solicitor, regarding the maintenance and repair of the township streets that are to be used by vehicles for site construction, drilling activities and site operations.
9. A description of, and commitment to maintain, safeguards that shall be taken by the applicant to ensure that Township streets utilized by the applicant shall remain free of dirt, mud and debris resulting from site development activities; and the applicant's assurance that such streets will be promptly swept or cleaned if dirt, mud and debris occur as a result of applicant's usage.
10. Verification that a copy of the operation's Preparedness, Prevention and Contingency Plan has been provided to the Township and all Emergency Responders.

11. A statement that the applicant, upon changes occurring to the operation's Preparedness, Prevention and Contingency Plan, will provide to the Township and all Emergency Responders the dated revised copy of the Preparedness, Prevention and Contingency Plan while drilling activities are taking place at the oil or gas well site.
  12. Assurance that, at least 30 days prior to drilling, the applicant shall provide an appropriate site orientation and training course of the Preparedness, Prevention and Contingency Plan for all Emergency Responders. The cost and expense of the orientation and training shall be sole responsibility of the applicant. The applicant shall not be required to hold more than one site orientation and training course annually under this section.
  13. A copy of the documents submitted to the department, or if no document has been submitted to the department, a narrative describing the environmental impacts of the proposed project on the site and surrounding land and measures proposed to protect or mitigate such impacts.
  14. A copy of all permits and plans from appropriate regulatory agencies or authorities issued in accordance to environmental requirements.
  15. A copy of all permits and plans from the appropriate regulatory agencies or authorities issued in accordance with applicable laws and regulations for the proposed use.
- B. Within 15 business days after receipt of a permit application and the required fee, the Township will determine whether the application is complete and adequate and advise the applicant accordingly.

- C. If the application is complete and fulfills the requirements of this ordinance, the Township shall issue or deny a permit within 30 days following the date the complete application was submitted.
- D. If the application is incomplete and/or inadequate the municipality will notify the applicant of the missing or inadequate material and, upon receiving said material, issue or deny the permit within 30 days following receipt.

**Section 8. DESIGN AND INSTALLATION:<sup>5</sup>**

A. Access.

- 1. No oil or gas well site shall have access solely through a local street. Whenever possible, access to the oil or gas well site should be from a collector street.
- 2. Accepted professional standards pertaining to minimum traffic sight distances for all access points shall be adhered to.

B. Structure Height.

- 1. Permanent structures associated with an oil and gas site, both principal and accessory, shall comply with the height regulations for the zoning district in which the oil or gas well site is located.
- 2. Permanent structures associated with natural gas compressor stations or natural gas processing plants shall comply with the height regulations for the zoning district in which the natural gas compressor station or natural gas processing plant is located.
- 3. There shall be an exemption to the height restrictions contained in this section for the temporary placement of drilling rigs, drying tanks, and

other accessory uses necessary for the actual drilling or redrilling of an oil or gas well.

- a. The duration of such exemption shall not exceed the actual time period of drilling or redrilling of an oil or gas well.
- b. Provided further the time period of such drilling and exemption shall not exceed 6 months.
- c. The operator shall give the Township prior written notice of the beginning date for its exercise of the exemption.

C. Setbacks.

1. Drilling rigs shall be located a minimum setback distance of 1.5 times their height from any property line, public or private street, or building not related to the drilling operations on either the same lot or an adjacent lot.
2. The drilling pad for the oil or gas well site shall comply with all setback and buffer requirements of the zoning district in which the oil or gas well site is located.
3. Natural gas compressor stations or natural gas processing plants shall comply with all setback and buffer requirements of the zoning district in which the natural gas compressor station or natural gas processing plant is located.
4. Exemption from the standards established in this subsection may be granted by the Township upon a showing by the operator that it is not feasible to meet the setback requirements from surface tract property

lines and that adequate safeguards have or will be provided to justify the exemption.

5. Drilling pads, natural gas compressor stations or natural gas processing plants shall be set back 200 feet from buildings or sites registered or eligible for registration on the National Register of Historic Places or the Pennsylvania Register of Historic Places.

#### D. Screening and Fencing.

1. Security fencing shall not be required at oil or gas well sites during the initial drilling, or redrilling operations, as long as manned 24-hour on-site supervision and security are provided.
2. Upon completion of drilling or redrilling security fencing consisting of a permanent chain link fence shall be promptly installed at the oil or gas well site to secure well heads, storage tanks, separation facilities, water or liquid impoundment areas, and other mechanical and production equipment and structures on the oil or gas well site.
3. Security fencing shall be at least 6 feet in height equipped with lockable gates at every access point and having openings no less than 12 feet wide.
4. Emergency Responders shall be given means to access oil or gas well site in case of an emergency.
5. Warning signs shall be placed on the fencing surrounding the oil or gas well site providing notice of the potential dangers and the contact information in case of an emergency.

6. In construction of oil or gas well sites the natural surroundings should be considered and attempts made to preserve existing trees and other native vegetation.

E. Lighting.

1. Lighting at the oil or gas well site, or other facilities associated with oil and gas drilling development, either temporary or permanent, shall be directed downward and inward toward the activity, to the extent practicable, so as to minimize the glare on public roads and nearby buildings within 100 feet of the oil or gas well development.
2. Lighting at a natural gas compressor station or a natural gas processing plant shall, when practicable, be limited to security lighting.

F. Noise.

1. The applicant shall take the following steps to minimize, to the extent possible, noise resulting from the oil or gas well development.
2. Prior to drilling of an oil or gas well or the operation of a natural gas compressor station or a natural gas processing plant, the applicant shall establish by generally accepted testing procedures, the continuous seventy-two hour ambient noise level at the nearest property line of a residence or public building, school, medical, emergency or other public facility, or one-hundred feet from the nearest residence or public building, medical, emergency or other public facilities, whichever point is closer to the affected residence or public building, school medical, emergency or other public facility. In lieu of the establishment of the ambient noise level established by the continuous seventy-two hour test the applicant may assume and use, for the purpose of compliance with this ordinance, a default ambient noise level of 55 dBA. The sound

level meter used in conducting any evaluation shall meet the American National Standard Institute's standard for sound meters or an instrument and the associated recording and analyzing equipment, which will provide equivalent data.

3. The applicant shall provide the township documentation of the established ambient noise level prior to starting oil or gas drilling and/or production operations.
4. The noise generated during the oil and gas operations or the natural gas compressor station or the natural gas processing plant shall not exceed the average ambient noise level established in subsection (2) by more than:
  - a. 5 decibels during drilling activities,
  - b. 10 decibels during hydraulic fracturing operations.
  - c. 5 decibels for a gas compressor station or a natural gas processing plant.
  - d. Allowable increase in subsection c shall not exceed the average ambient noise level for more than 10 minutes within any one-hour period.
5. Effective sound mitigation devices shall be installed to permanent facilities to address sound levels that would otherwise exceed the noise level standards when located near a residence, public building, school, medical, emergency or other public facilities.
6. Exemption from the standards established in this subsection may be granted by the Township during the drilling stage or at the oil or gas well site, or the gas compressor station, or at the natural gas processing plant for good cause shown and upon written agreement between the applicant and the township.

7. Complaints received by the township shall be addressed by the applicant, within 24 hours following receipt of notification by continuously monitoring for a period of forty-eight hours at the nearest property line to the complainant's residential or public building or one-hundred feet from the complainant's residential or public building, school medical, emergency or other public facilities, whichever is closer. The applicant shall report the findings to the township and shall mitigate the problem to the allowable level if the noise level exceed the allowable rate.
  
8. Natural gas compressor stations and natural gas processing plants or facilities performing the equivalent functions shall be constructed so as to mitigate sound levels, or have installed mitigation devices to mitigate sound levels that would otherwise exceed the ambient noise level standards at residential or public buildings, medical, emergency or other public facilities.

G. Prohibitions.

1. No drilling shall be allowed in the floodway designated as such in the Flood Insurance Study (FIS) and shown on the Federal Emergency Management Agency (FEMA) maps.
  
2. Oil and gas drilling in the 100 year Floodplain is discouraged but may be permitted by the Township in its discretion if the following provisions are met.
  - a. If no other area provides access to the oil or gas deposit, then oil and gas drilling may be permitted in the floodplain. The applicant must provide conclusive documentation that no other location allows access to the oil or gas deposit other than a location within the floodplain.

- b. An adequate Emergency Evacuation Plan shall have been produced by the applicant and filed with the township.
- c. No storage of chemicals shall be permitted within the floodplain. An exemption from this requirement may be granted by the Township if the applicant can show that such storage will not potentially cause any harm to property, persons or the environment in the case of a 100-year flood; and further provides security to the Township assuring the applicant's ability to remedy any damage or injury that may occur.
- d. Only necessary and needed structures will be permitted within the floodplain.
- e. All structures within the flood zone shall be designed to withstand a 100-year storm event.
- f. An Engineer registered in Pennsylvania and qualified to present such documentation that structures will not cause additional flooding on adjacent, upstream and/or downstream properties shall provide such documentation to the Township.

**Section 9. SEVERABILITY:**

If any section, subsection, sentence, clause or phrase or portion of this document is for any reason held invalid or unconstitutional by any court of competent jurisdiction, such shall be deemed a separate, distinct, and independent provision and such holding shall not affect the validity of the remaining portion thereof.

**Section 10. PENALTIES:**

Any owner, operator, or other person who violates or permits a violation of this chapter upon being found liable therefore in a civil enforcement proceeding before a Magisterial District Judge, shall pay to the township a fine of not more than

\$500, plus all court costs, including, but not limited to, reasonable attorney's fees incurred by the Township on account of such violation. No penalty or cost shall be imposed until the date the determination of the violation by the Magisterial District Judge becomes final. If the defendant neither pays nor timely appeals the judgment, the Township may enforce the judgment as provided by law. Each day a violation exists after final judgment shall constitute a separate offense. The amount of the fine imposed shall be multiplied by the number of such days and may be charged and collected as a judgment by the Township without further judicial proceedings. Further, the appropriate officers or agents of the Township are hereby authorized, to issue a cease and desist notice and/or to seek equitable relief, including injunction, to enforce compliance herewith. No Bond shall be required of the Township if the Township seeks injunctive relief.

**Section 11. EFFECTIVE DATE:**

This ordinance shall take effect \_\_\_\_\_.

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<sup>1</sup> *The Pennsylvania Supreme Court has upheld municipalities' power to impose reasonable zoning regulations upon oil and gas operations. This model ordinance targets the mid-range of allowable local regulations, as that area is indicated by the present state of the law and by the historical rules, which define local zoning powers. However, because the courts and the legislature have not yet fully defined the parameters of local zoning powers over oil and gas activities; and, because local zoning power is affected and expressly limited by provisions of the Pennsylvania Oil and Gas Act; and, because local zoning actions are under close and continuing scrutiny by industry and other interested parties, it is imperative that this Model be viewed as a facilitating aid to local government deliberations, and not as an authoritative determinor of the scope or limits of local zoning power. Each governmental body considering this subject matter should bring the physical conditions of the municipality, the needs of the residents, and the independent advice of local counsel to bear in exercising its independent judgment on the legislative issues involved and decisions to be made regarding this subject matter.*

<sup>2</sup> *The provisions set forth in this section do not constitute the only regulatory form or substance that might be employed by an enacting township. Rather, these provisions are intended as one possible regulatory configuration that is likely within current judicial and statutory guidelines, and may adequately address local interests in many cases. Remember that, in addition to the limitations imposed by the Oil and Gas Act, local action is governed by the long standing zoning rules, which require reasonable provision for all legal activities.*

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<sup>3</sup> *For either a conditional use or special exception, additional standards and conditions to those in this model ordinance should be added either in this section or in another section pertaining to the conditions necessary for an applicant to comply with for a conditional use or special exception.*

<sup>4</sup> *Ibid*

<sup>5</sup> *Local regulation of operational aspects of oil and gas activities is preempted by state statute. The dividing line between an “operations” regulation and a “zoning” regulation is not clear in every case. Accordingly, a township considering Design and Installation provisions must carefully consider the scope of such proposed regulations; an enacting township may have to accept a degree of uncertainty as to the enforceability of a particular zoning provision in so far as that provision impacts operations. Here again, the thoughtful deliberation of elected officials and the legal advice of local counsel are essential. Every governmental regulation, zoning and otherwise, must pass a test of reasonableness. It must have a demonstrable purpose that reasonably satisfies a legitimate public need in the least burdensome way possible. A regulation whose masked purpose is to prevent the legal activity to which it applies will almost certainly be ultimately invalidated.*