



MEMO

Date: July 17, 2015

To: Mayor and City Council

From: Brian M. Kischnick, City Manager

Subject: Recommendation Regarding ZOTA 247 – Gas and Oil Extraction

On the a July 20, 2015 City Council meeting there is a Public Hearing scheduled for the Gas and Oil Extraction Zoning Ordinance Text Amendment (ZOTA Number 247). The Planning Commission initiated this ZOTA and unanimously recommend approval. Representatives of the Associated Petroleum Industries of Michigan met with staff and I. It became apparent that the City should have some direct interaction with the Michigan Department of Environmental Quality (MDEQ) to fully understand how the MEDQ regulates gas and oil extraction. MEDQ could further educate the City regarding the techniques of gas and oil extraction and the impacts of those techniques.

City Council, Planning Commission and the City Manager all have the same interest to strike a balance between protecting neighborhoods from negative land uses and their impacts while at the same time not being exclusionary. Therefore, I recommend that City Council conduct their Public Hearing and then schedule a Joint City Council and Planning Commission Study Meeting. This will allow a thorough education on the subject as well as understand the Planning Commission's position. Then, we can move forward in a direction with an enhanced understanding of the issue.



CITY COUNCIL AGENDA ITEM

Date: July 16, 2015

To: Brian Kischnick, City Manager

From: Mark F. Miller, Director of Economic & Community Development
R. Brent Savidant, Planning Director

Subject: PUBLIC HEARING – ZONING ORDINANCE TEXT AMENDMENT (File Number: ZOTA 247)
– Oil and Gas Extraction

This item was initiated by the Planning Commission, who recognized that the Zoning Ordinance is presently silent on the issue of oil and gas extraction. This effort is intended to protect Troy residents and property owners against the negative secondary effects of these facilities while at the same time creating reasonable standards for oil and gas extraction facilities.

The provisions were discussed by the Planning Commission at previous meetings. The proposed provisions would regulate oil and gas extraction in Troy, including fracking.

Draft amendments include the following:

- Oil and gas facilities are permitted in IB District as a Special Use
- Requires a minimum lot size of 5 acres
- Requires increased setbacks based on adjacent use/zoning
- Requires extensive fencing, landscaping, and limited lighting
- Requires adherence to strict nuisance and performance standard requirements
- Requires submittal of a detailed Operations Plan

The Planning Commission held a public hearing on this item on June 23, 2015, and recommended approval of the text amendment with a 9-0 vote. The attached Planning Commission item provides additional background.

The State of Michigan Department of Environmental Quality (MDEQ) has a website with considerable information on oil and gas extraction. The attached map shows there is a significant number of oil and gas wells in Michigan, particularly along a band in the northern southern Peninsula, between Manistee County and Alpena County. There are not a significant number of oil and gas wells in Oakland County. There is one operational oil and gas well in Troy, a natural gas well located on the MSU Management Center campus at 817 W. Square Lake Road (see attached photograph).

Hydraulic fracturing (commonly referred to as “fracking”) is a method of oil and gas extraction. The MDEQ has information available that describes this practice (see attached). The attached map provided by the MDEQ indicates there are ongoing fracking operations in Michigan but none in Oakland County.

Oil and gas extraction in Michigan is regulated by the Natural Resources and Environmental Protection Act (PA 451 of 1994), Part 615 Supervisor of Wells. These are the standards affecting



CITY COUNCIL AGENDA ITEM

potential oil and gas facilities in Troy today. The most significant standard is a distance requirement of 450 feet from a site and a residential building. Oil and gas facilities can presently be located in residential areas, provided other standards in the Act are met. The proposed provisions would be additional standards over and above what the Act requires. The attached table compares the standards of the Act with the proposed City of Troy provisions for oil and gas facilities. Further, the attached map shows potential sites available to be used today as sites for oil and gas facilities.

The Planning Commission was provided with a map showing all properties in Troy zoned IB and at least 5 acres in area. Since the Planning Commission public hearing, City staff was able to create a map showing properties that met this criteria as well as the additional setback criteria proposed in the amendment. The additional criteria reduced the potential area available for oil and gas facilities.

There is a significant amount of information available related to this item. It is important that City Council is fully informed on this topic. City Management recommends that this item be studied and discussed at a joint meeting of City Council and the Planning Commission. Further, City Management proposes to invite representatives of the Oil, Gas and Minerals Section of MDEQ to attend the meeting, make a brief presentation and be available to answer questions related to the oil and gas industry.

Approved as to form and legality:

Lori Grigg Bluhm, City Attorney

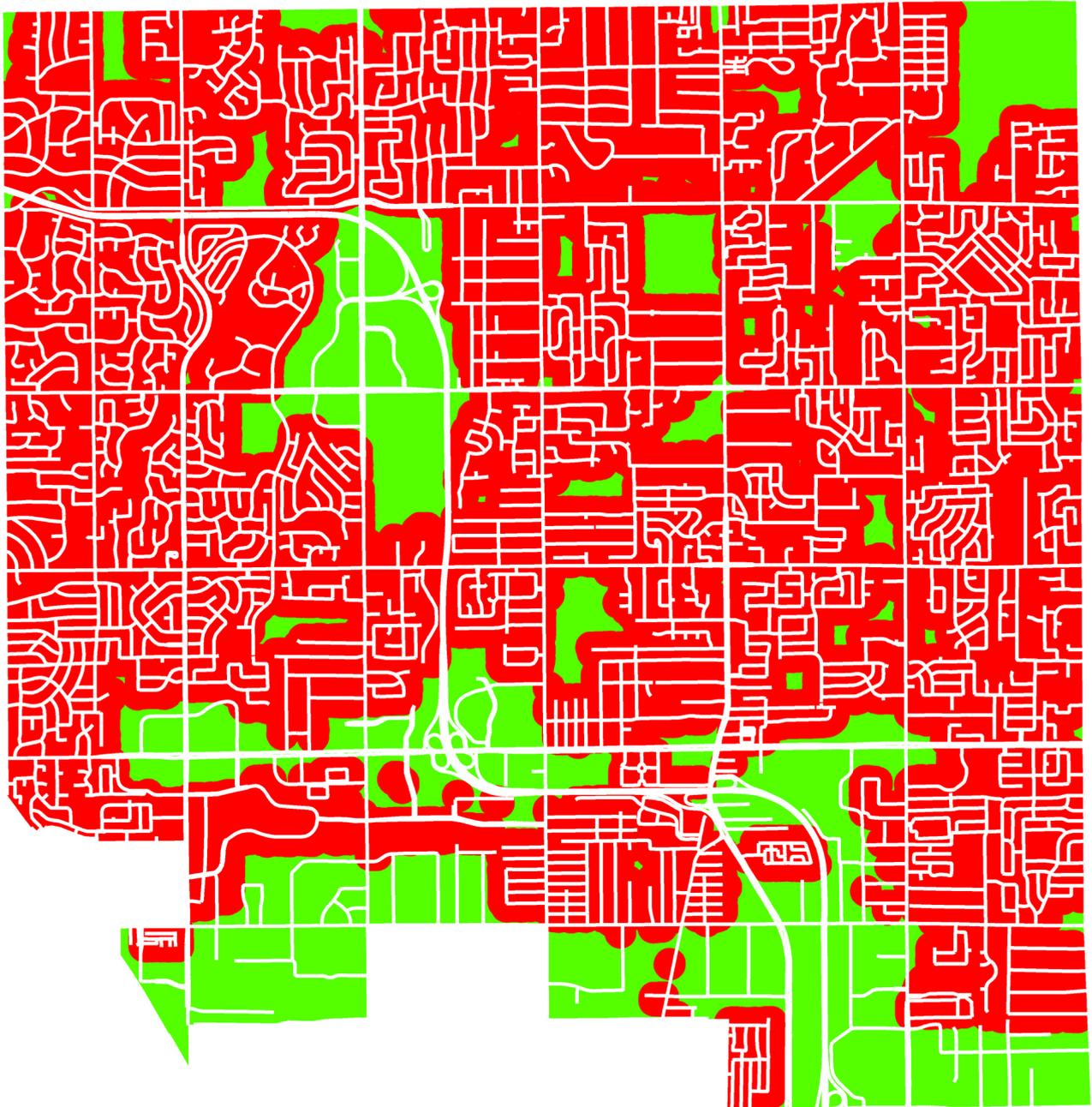
Attachments:

1. Table – Comparison of Regulations.
2. Map - Potential Oil and Gas Facility Sites (existing State of Michigan requirements).
3. Map – Potential Oil and Gas Facility Sites (proposed Zoning Ordinance provisions).
4. Zoning Ordinance Text Amendment Public Hearing Draft
5. Planning Commission minutes from June 23, 2015 Regular meeting (excerpt).
6. Planning Commission agenda item from June 23, 2015 Regular meeting.
7. Map - Oil and gas well in Michigan (from MDEQ website).
8. Photograph of natural gas well at MSU Management Center, 817 W. Square Lake Road, Troy MI.
9. Hydraulic Fracturing of Oil and Gas Wells in Michigan (from MDEQ website).
10. Map - High Volume Hydraulic Fracturing in Michigan.
11. Natural Resources and Environmental Protection Act (excerpt), Part 615 Supervisor of Wells.
12. Questions from Councilman Henderson, with responses.

COMPARISON OF REGULATIONS

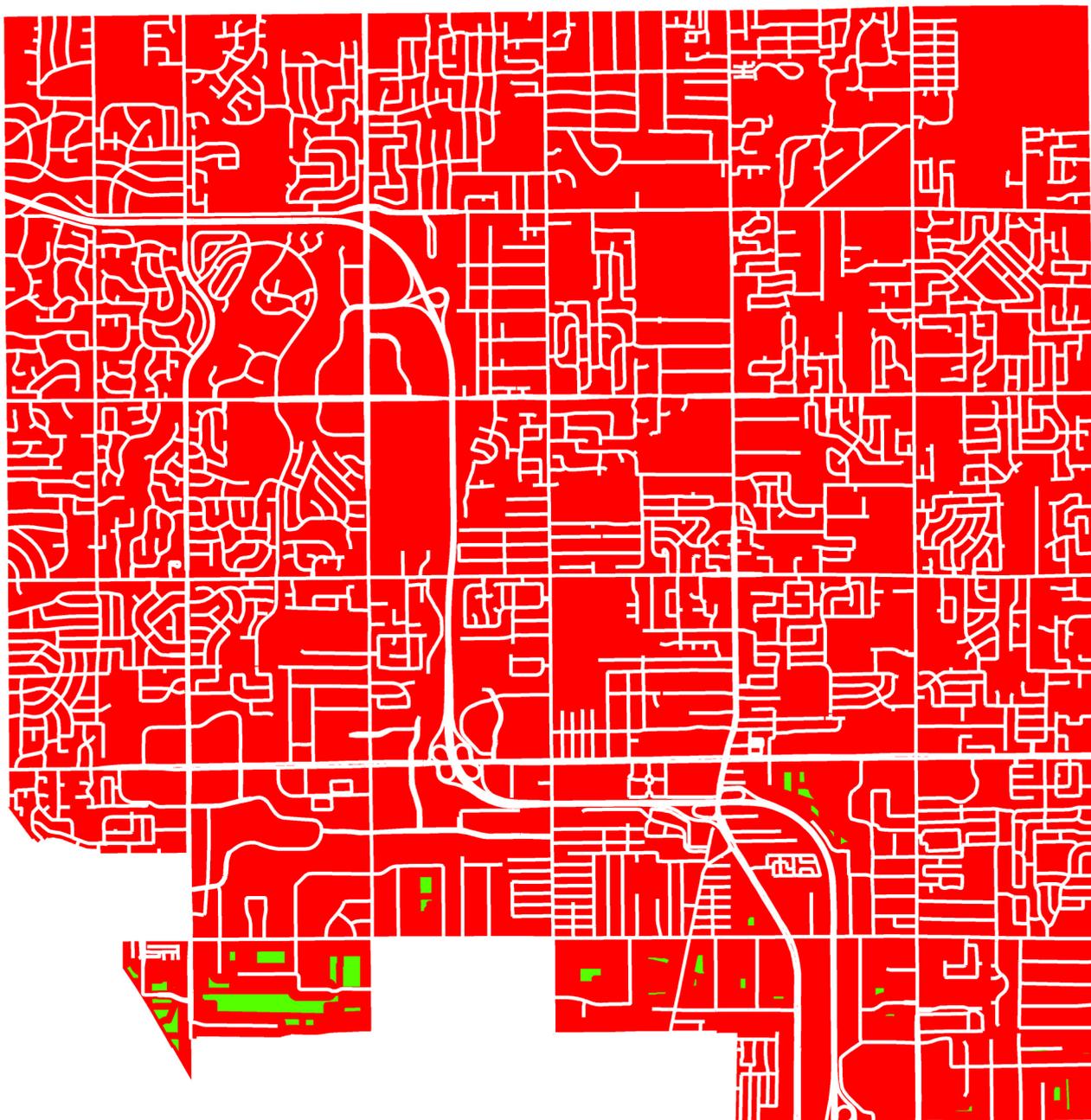
STATE OF MICHIGAN SUPERVISORS OF WELLS VERSUS PROPOSED CITY OF TROY PROVISIONS

REGULATION	STATE OF MICHIGAN SUPERVISORS OF WELLS	CITY OF TROY PROPOSED PROVISIONS
Minimum Lot Area	No requirement	5 acres
Zoning District	No requirement	IB Integrated Industrial and Business District
Permitted by Right or by Special Use Approval	By right	Special Use
Minimum Distance from Residential	450' from residential building	500' from residentially zoned or used property
Minimum Distance from Right-of-Way	No requirement	500' from property
Minimum Distance from Religious Facility	No requirement	500' from property
Minimum Distance from School	No requirement	500' from property
Minimum Distance from Hospital	No requirement	500' from property
Maximum Height Requirements	No requirement	110' for drilling derrick/rig and 22' for wellhead
Minimum Landscaping	No requirement	Staggered 10' tall evergreen trees placed around perimeter of fence with minimum landscape greenbelt buffer of 25' in depth
Fencing Requirements	No requirement	Site to be completely enclosed by 6' high fence
Construction Activity Hours	No requirement	Limited to between 7am and 8pm



EXISTING SITUATION

 Potential Sites Located at least 450' From Residential buildings (as per State of Michigan requirements)



PROPOSED OIL AND GAS PROVISIONS

 Areas meeting criteria for Oil and Gas Facilities (as per proposed text amendment)

CITY OF TROY

AN ORDINANCE TO AMEND
CHAPTER 39 OF THE CODE
OF THE CITY OF TROY
CITY COUNCIL PUBLIC HEARING DRAFT

The City of Troy ordains:

Section 1. Short Title

This Ordinance shall be known and may be cited as an amendment to Chapter 39, Zoning Ordinance, of the Code of the City of Troy.

Section 2. Amendment

Chapter 39 of the Code of the City of Troy is amended as follows:

Add the following definitions in Section 2.02 to read as follows:

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.

HYDRAULIC FRACTURING OR FRACKING– The process of injecting water, customized fluids, sand, steam, or gas into a gas well under pressure to improve gas recovery.

HORIZONTAL DRILLING- The drilling of an oil or natural gas well at an angle so that the well runs parallel to the formation containing the oil or gas.

OIL AND GAS -- Crude oil, natural gas, methane gas, coal bed methane gas, propane, butane and/or any other products or similar substances that are produced by drilling an oil or gas well.

OIL AND GAS DEVELOPMENT -- The well site preparation, construction, drilling, redrilling, 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 of facilities, structures, materials and equipment (whether temporary or permanent), that are necessary for or incidental to the preparation, construction, drilling, production or operation of an oil or gas well. This definition also includes exploratory wells.

NATURAL GAS COMPRESSOR STATION -- A facility designed and constructed to compress natural gas that originates from a 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.

Revise the following table in Section 4.21 to read as follows:

	R1A-R1E	RT	MF	UR	MHP	CF	EP	CB	GB	IB	O	OM	RC	PV	P
<u>Oil and Gas Well or Development</u>	<u>NP</u>	<u>S</u>	<u>NP</u>	<u>NP</u>	<u>NP</u>	<u>NP</u>	<u>NP</u>								

Add Section 6.33 to read as follows:

Section 6.33: Oil and Gas Well/Development Standards for Special Use Approval:

The purpose of this section is to provide for the reasonable development of land for oil and gas drilling while providing adequate health, safety and general welfare protections of the residents of Troy. 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 protects the environment, protects residential properties and residential property values, and mitigates negative impacts.

The following requirements shall apply to the location, installation, drilling and operation of any well for the commercial extraction of oil, gas or other hydrocarbons in the City:

- A. Spacing and Well Setbacks. In addition to the spacing and setback requirements of the State of Michigan and the regulations of its Supervisor of Wells, the drilling, completion, or operation of oil or gas wells or well site shall not be located within 300 feet from any road right-of-way, 500 feet of a residentially zoned or used property or any property used for a religious facility, public or private school, or hospital, and 100 feet from any other property line. The setbacks in this section also apply to the area underground, and

preclude any horizontal drilling within the setback unless the applicant demonstrates to the City's satisfaction a legal entitlement to drill on adjacent properties through mineral rights acquisition or other means.

The measurement of the setback shall be made from the edge of the well site (in a straight line, without regard to intervening structures or objects), to the closest exterior point of the adjacent parcel.

- B. Height. The completed wellhead structure shall not exceed twenty-two (22) feet in height. The temporary drilling derrick/rig shall not exceed one-hundred and ten (110) feet in height.
- C. Minimum Lot Size. The minimum lot size shall be 5 acres.
- D. Fencing, Landscaping, and Lighting.
 - 1. An oil or gas well site shall be completely enclosed within a 6-foot high fence.
 - 2. Staggered ten (10) foot tall evergreen trees shall be placed around the perimeter of the fence with a minimum landscape greenbelt buffer of twenty-five (25) feet in depth. This landscaping buffer shall be in place within thirty (30) days of the removal of the temporary drilling derrick/rig. The landscape buffer and trees shall be regularly irrigated and maintained.
 - 3. Exterior lighting shall comply with Section 13.05 of the Zoning Ordinance.
- E. Nuisance Mitigation. The drilling, completion, or operation of oil or gas wells or other wells drilled for oil or gas exploration purposes shall comply with Section 12.06, Environmental Performance Standards. Those standards address potential nuisances such as noise, smoke, dust, open storage, fire and explosive hazards, odors, wastes, and vibration. Due to the unique nature of this type of operation, additional information and standards may be required.
- F. Dust, Noise, Vibration, and Odors. All operations shall be conducted in such a manner as to minimize, so far as practicable, dust, noise, vibration, or noxious odors, and shall be in accordance with the best accepted practices defined by the Michigan Department of Environmental Quality (MDEQ) for the production of oil, gas and other hydrocarbon substances in urban areas. All equipment used shall be constructed and operated so that vibrations, dust, odor or other harmful or annoying substances or effects will be minimized by the operations carried on at any drilling or production site or from anything incidental thereto, and to minimize the annoyance of persons living or working in the vicinity. Additionally, the site or structures on the property shall not be permitted to become dilapidated, unsightly, or unsafe. The City may impose additional reasonable restrictions upon such operations to reduce adverse impacts upon adjacent properties.
- G. Oil and Gas Processing Facilities. Associated processing facilities that separate oil, gas, and brine and hold said products for transport off-site for further refinement and processing are not permitted.
- H. Compliance with Laws and Permit Issuance. The drilling, completion, or operation of oil or gas wells or other wells drilled for the purpose of oil or gas exploration shall be done in conformity with all State and Federal laws, statutes, rules, and regulations pertaining thereto and particularly with the State of Michigan and the regulations of its Supervisor of Wells. This shall include obtaining the required permit from the Supervisor of Wells,

which permit shall be provided to the City before the City can grant special use approval under this section. This requirement also applies to, but is not limited to the plugging of wells, the exploring for, producing, marketing, and transporting of petroleum products, and the disposition and removal of any byproducts utilized and associated with said activities.

- I. Associated Permits and Approvals. Special use approval for the drilling, completion, or operation of oil or gas wells or other wells drilled for oil or gas exploration purposes is in addition to and are not in lieu of any permit or plan which may be required by any other provision of the City of Troy Zoning Ordinance, Building and Fire Codes, or by any other governmental agency, unless expressly outlined.
- J. Operations
 1. Permitted Construction Activity Hours. Site preparation and construction of well sites are limited to the hours of 7 am to 8 pm. Construction activities associated with establishing of the well sites may be eligible for an exception by the Building Department in accordance with the City's Special Hours Work Permit if such activities are in compliance with applicable laws and permits.
 2. The movement of drilling rigs, tanker trucks or heavy equipment used in connection with the drilling or operation of oil or gas wells over public roads and streets, shall be consistent with the City's Traffic Engineer's approval, which shall be obtained in advance. The City's Traffic Engineer shall identify the streets which may be used and any conditions that may apply.
 3. All brine, mud, slush, saltwater, chemicals, wastewater, chemical, fluids or waste produced or used in the drilling or production of oil or gas shall be safely, lawfully and properly disposed of to prevent infiltration of or damage to any fresh water well, groundwater, watercourse, pond, lake or wetland.
 4. The oil or gas well site shall be kept in a clean and orderly condition, free of trash and debris, with weeds cut. Machinery and equipment not being used in the operation of the well shall not be stored or kept at the well site.
 5. An oil or gas well shall include measures or controls satisfactory to the City Engineer to prevent migration, run-off or discharge of any hazardous materials, including but not limited to any chemicals, oil or gas produced or used in the drilling or production of oil or gas, to adjoining property or to the City of Troy sanitary sewer system, stormwater system or any natural or artificial watercourse, pond, lake or wetland. There shall be no off-site discharge of storm water except to an approved drainage system in accordance with the City's engineering requirements.
- K. Inspection. The Building Official, and any other designee of the City Manager, shall have the right and privilege at any time during the construction phase and any drilling operation to enter upon the premises covered by the special use approval for the purpose of making inspections to determine if the requirements of this section are complied with or the requirements of any other code or ordinance of the City are met.
- L. Injection wells. Injection wells used for brine disposal or other chemicals from production wells or from other sources shall be expressly prohibited within the City.

- M. Pipelines. No operator shall excavate or construct any lines for the conveyance of fuel, water, oil, gas or petroleum liquids on, under, or through the streets, alleys or other properties owned by the City without an easement or right-of-way license from the City.
- N. Submittal Requirements. In addition to submittal requirements for a Site Plan as set forth in Article 8 and Special Use as set forth in Article 9, the following information shall be submitted as part of the application:
1. Environmental Impact Statement. Applicant shall submit an Environmental Impact Statement filed with the Michigan Department of Environmental Quality in connection with a well permit under Part 615 of the Natural Resources and Environmental Protection Act, MCL 524.61501, et seq, and the administrative rules promulgated under Part 615, as amended.
 2. Hydrogeological analysis.
 3. Emergency Response Plan. Pursuant to State and Federal law, the operator shall provide any information necessary to assist the City Emergency Services Department with an emergency response plan and hazardous materials survey establishing written procedures to minimize any hazard resulting from the operation. The Emergency Response Plan should include emergency contact information.
 4. Reclamation Plan. A written statement that describes how the land will be returned to a stable and productive condition post drilling operations.
 5. Operations Plan to include:
 - i. Site ingress/egress
 - ii. Haul Route Map. Vehicle Routes for Truck Traffic. Construction vehicles and commercial trucks, associated with drilling and/or production operations shall be restricted to roads designated by the City Engineer.
 - iii. Hours of Operation. State listed hours of operation.
 - iv. Soil Erosion, Mud and Dust Control Plan.
 - v. Noise Control Plan. Prior to the granting of special use approval and the commencement of operations, the petitioner shall submit a noise management plan, detailing how the equipment used in the drilling, completion, transportation, or production of a well complies with the maximum permissible noise levels of the Zoning Ordinance. If Special Use Approval is granted, the Petitioner shall be responsible for verifying compliance with this section and the noise management plan after the installation of the equipment. The noise management plan shall:
 - i. Identify operational noise impacts
 - ii. Provide documentation establishing the ambient noise level prior to construction.
 - iii. Detail how the impacts will be mitigated. In determining noise mitigation, specific site characteristics shall be considered, including but not limited to the following:
 1. Nature and proximity of adjacent development, location, and type
 2. Seasonal and prevailing weather patterns, including wind directions
 3. Vegetative cover on or adjacent to the site

4. Topography
- vi. Odor and Fume Control Plan
 - vii. Pollution Prevention Plan
 - viii. Impact Mitigation Plan
 - ix. Monitoring controls.

Section 3. Savings

All proceedings pending, and all rights and liabilities existing, acquired or incurred, at the time this Ordinance takes effect, are hereby saved. Such proceedings may be consummated under and according to the ordinance in force at the time such proceedings were commenced. This ordinance shall not be construed to alter, affect, or abate any pending prosecution, or prevent prosecution hereafter instituted under any ordinance specifically or impliedly repealed or amended by this ordinance adopting this penal regulation, for offenses committed prior to the effective date of this ordinance; and new prosecutions may be instituted and all prosecutions pending at the effective date of this ordinance may be continued, for offenses committed prior to the effective date of this ordinance, under and in accordance with the provisions of any ordinance in force at the time of the commission of such offense.

Section 4. Severability Clause

Should any word, phrase, sentence, paragraph or section of this Ordinance be held invalid or unconstitutional, the remaining provision of this ordinance shall remain in full force and effect.

Section 5. Effective Date

This amendment to the Zoning Ordinance shall take effect seven (7) days after publication, which shall be published within 15 days of adoption, as required the Michigan Zoning Enabling Act (Act 110 of 2006).

This Ordinance is enacted by the Council of the City of Troy, Oakland County, Michigan, at a regular meeting of the City Council held at City Hall, 500 W. Big Beaver, Troy, MI, on the _____ day of _____, 2015.

Dane Slater, Mayor

Aileen Bittner, City Clerk

ZONING ORDINANCE TEXT AMENDMENT9. **PUBLIC HEARING - ZONING ORDINANCE TEXT AMENDMENT (File Number ZOTA 247) – Oil and Gas Extraction**

Mr. Savidant gave a PowerPoint presentation. He addressed the proposed regulations as relates to:

- Zoning District
- Special Use permit
- Minimum lot size and setbacks
- Screening and lighting
- Potential oil and gas sites (map)
- Nuisance performance standards
- Submittal requirements
- Comparison with Rochester Hills regulations

Mr. Motzny addressed the proposed regulations with respect to the constitutionality and non-exclusionary aspects of the law.

PUBLIC HEARING OPENED

Jennifer Halucha of 3219 Abington would like the City to strengthen its proposed regulations. She addressed regulations imposed by other communities.

Lois Pylat of 2378 Topaz encouraged members of government to contact Lansing in an effort to stop fracking. She addressed the potential for health consequences.

Cynthia Khan of 6902 Aurora addressed the dependency on other countries for energy and encouraged the use of our country's resources.

Toni Kovach of 2370 Topaz would like the City to strengthen the proposed regulations and provide protection of those who are in ill health.

Michael Ross of 152 Randall addressed the viable direction in which our country needs to go to stabilize its borders and international economy.

John Griffin of American Petroleum Institute, 124 W Allegan, Lansing, encouraged interested parties to learn more about the extraction of oil and fracking before speaking negatively on the matter. He addressed permitting in Troy, geological findings in Oakland County, protection of property rights and State regulations.

PUBLIC HEARING CLOSED

Chair Edmunds encouraged residents to contact their State legislators.

Mr. Savidant advised the audience the Planning Commission is the recommending body for a proposed text amendment and a Public Hearing will be scheduled at a future City Council meeting for consideration.

Resolution # PC-2015-06-040

Moved by: Hutson

Seconded by: Kuppa

RESOLVED, That the Planning Commission hereby recommends to the City Council that Articles 2, 4, and 6 of Chapter 39 of the Code of the City of Troy, which includes miscellaneous provisions related to oil and gas extraction, be amended as printed on the proposed Zoning Ordinance Text Amendment.

Yes: All present (9)

MOTION CARRIED

DATE: June 19, 2015

TO: Planning Commission

FROM: R. Brent Savidant, Planning Director

SUBJECT: ZONING ORDINANCE TEXT AMENDMENT (File Number ZOTA 247) – Oil and Gas Extraction

This item was initiated by the Planning Commission, based on a recognition that the Zoning Ordinance is presently silent on the issue of oil and gas extraction.

The provisions were discussed by the Planning Commission at previous meetings. The proposed provisions would regulate oil and gas extraction in Troy, including fracking. These operations would be permitted subject to special use approval in the IB (Integrated Industrial and Business) zoning district only, on parcels that are at least 5 acres in size or greater.

The Planning Commission discussed this item at the May 26, 2015 Regular meeting and requested that a public hearing be scheduled. Following the public hearing, the item can be forwarded to City Council for consideration and action.

Please be prepared to discuss this item at the June 19, 2015 Planning Commission meeting.

Attachments:

1. Public Hearing Draft ZOTA
2. Map of potential oil and gas sites.

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PROPOSED RESOLUTION

ZONING ORDINANCE TEXT AMENDMENT (File Number ZOTA 247) – Oil and Gas Extraction

Resolution # PC-2015-06-

Moved by:

Seconded by:

RESOLVED, That the Planning Commission hereby recommends to the City Council that Articles 2, 4, and 6 of Chapter 39 of the Code of the City of Troy, which includes miscellaneous provisions related to oil and gas extraction, be amended as printed on the proposed Zoning Ordinance Text Amendment.

Yes:

No:

Absent:

MOTION CARRIED / DENIED

CITY OF TROY

AN ORDINANCE TO AMEND
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Add Section 6.33 to read as follows:

Section 6.33: Oil and Gas Well/Development Standards for Special Use Approval:

The purpose of this section is to provide for the reasonable development of land for oil and gas drilling while providing adequate health, safety and general welfare protections of the residents of Troy. 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 protects the environment, protects residential properties and residential property values, and mitigates negative impacts.

The following requirements shall apply to the location, installation, drilling and operation of any well for the commercial extraction of oil, gas or other hydrocarbons in the City:

- A. Spacing and Well Setbacks. In addition to the spacing and setback requirements of the State of Michigan and the regulations of its Supervisor of Wells, the drilling, completion, or operation of oil or gas wells or well site shall not be located within 300 feet from any road right-of-way, 500 feet of a residentially zoned or used property or any property used for a religious facility, public or private school, or hospital, and 100 feet from any other property line. The setbacks in this section also apply to the area underground, and

preclude any horizontal drilling within the setback unless the applicant demonstrates to the City's satisfaction a legal entitlement to drill on adjacent properties through mineral rights acquisition or other means.

The measurement of the setback shall be made from the edge of the well site (in a straight line, without regard to intervening structures or objects), to the closest exterior point of the adjacent parcel.

- B. Height. The completed wellhead structure shall not exceed twenty-two (22) feet in height. The temporary drilling derrick/rig shall not exceed one-hundred and ten (110) feet in height.
- C. Minimum Lot Size. The minimum lot size shall be 5 acres.
- D. Fencing, Landscaping, and Lighting.
 - 1. An oil or gas well site shall be completely enclosed within a 6-foot high fence.
 - 2. Staggered ten (10) foot tall evergreen trees shall be placed around the perimeter of the fence with a minimum landscape greenbelt buffer of twenty-five (25) feet in depth. This landscaping buffer shall be in place within thirty (30) days of the removal of the temporary drilling derrick/rig. The landscape buffer and trees shall be regularly irrigated and maintained.
 - 3. Exterior lighting shall comply with Section 13.05 of the Zoning Ordinance.
- E. Nuisance Mitigation. The drilling, completion, or operation of oil or gas wells or other wells drilled for oil or gas exploration purposes shall comply with Section 12.06, Environmental Performance Standards. Those standards address potential nuisances such as noise, smoke, dust, open storage, fire and explosive hazards, odors, wastes, and vibration. Due to the unique nature of this type of operation, additional information and standards may be required.
- F. Dust, Noise, Vibration, and Odors. All operations shall be conducted in such a manner as to minimize, so far as practicable, dust, noise, vibration, or noxious odors, and shall be in accordance with the best accepted practices defined by the Michigan Department of Environmental Quality (MDEQ) for the production of oil, gas and other hydrocarbon substances in urban areas. All equipment used shall be constructed and operated so that vibrations, dust, odor or other harmful or annoying substances or effects will be minimized by the operations carried on at any drilling or production site or from anything incidental thereto, and to minimize the annoyance of persons living or working in the vicinity. Additionally, the site or structures on the property shall not be permitted to become dilapidated, unsightly, or unsafe. The City may impose additional reasonable restrictions upon such operations to reduce adverse impacts upon adjacent properties.
- G. Oil and Gas Processing Facilities. Associated processing facilities that separate oil, gas, and brine and hold said products for transport off-site for further refinement and processing are not permitted.
- H. Compliance with Laws and Permit Issuance. The drilling, completion, or operation of oil or gas wells or other wells drilled for the purpose of oil or gas exploration shall be done in conformity with all State and Federal laws, statutes, rules, and regulations pertaining thereto and particularly with the State of Michigan and the regulations of its Supervisor of Wells. This shall include obtaining the required permit from the Supervisor of Wells.

which permit shall be provided to the City before the City can grant special use approval under this section. This requirement also applies to, but is not limited to the plugging of wells, the exploring for, producing, marketing, and transporting of petroleum products, and the disposition and removal of any byproducts utilized and associated with said activities.

- I. Associated Permits and Approvals. Special use approval for the drilling, completion, or operation of oil or gas wells or other wells drilled for oil or gas exploration purposes is in addition to and are not in lieu of any permit or plan which may be required by any other provision of the City of Troy Zoning Ordinance, Building and Fire Codes, or by any other governmental agency, unless expressly outlined.
- J. Operations
 1. Permitted Construction Activity Hours. Site preparation and construction of well sites are limited to the hours of 7 am to 8 pm. Construction activities associated with establishing of the well sites may be eligible for an exception by the Building Department in accordance with the City's Special Hours Work Permit if such activities are in compliance with applicable laws and permits.
 2. The movement of drilling rigs, tanker trucks or heavy equipment used in connection with the drilling or operation of oil or gas wells over public roads and streets, shall be consistent with the City's Traffic Engineer's approval, which shall be obtained in advance. The City's Traffic Engineer shall identify the streets which may be used and any conditions that may apply.
 3. All brine, mud, slush, saltwater, chemicals, wastewater, chemical, fluids or waste produced or used in the drilling or production of oil or gas shall be safely, lawfully and properly disposed of to prevent infiltration of or damage to any fresh water well, groundwater, watercourse, pond, lake or wetland.
 4. The oil or gas well site shall be kept in a clean and orderly condition, free of trash and debris, with weeds cut. Machinery and equipment not being used in the operation of the well shall not be stored or kept at the well site.
 5. An oil or gas well shall include measures or controls satisfactory to the City Engineer to prevent migration, run-off or discharge of any hazardous materials, including but not limited to any chemicals, oil or gas produced or used in the drilling or production of oil or gas, to adjoining property or to the City of Troy sanitary sewer system, stormwater system or any natural or artificial watercourse, pond, lake or wetland. There shall be no off-site discharge of storm water except to an approved drainage system in accordance with the City's engineering requirements.
- K. Inspection. The Building Official, and any other designee of the City Manager, shall have the right and privilege at any time during the construction phase and any drilling operation to enter upon the premises covered by the special use approval for the purpose of making inspections to determine if the requirements of this section are complied with or the requirements of any other code or ordinance of the City are met.
- L. Injection wells. Injection wells used for brine disposal or other chemicals from production wells or from other sources shall be expressly prohibited within the City.

- M. Pipelines. No operator shall excavate or construct any lines for the conveyance of fuel, water, oil, gas or petroleum liquids on, under, or through the streets, alleys or other properties owned by the City without an easement or right-of-way license from the City.
- N. Submittal Requirements. In addition to submittal requirements for a Site Plan as set forth in Article 8 and Special Use as set forth in Article 9, the following information shall be submitted as part of the application:
1. Environmental Impact Statement. Applicant shall submit an Environmental Impact Statement filed with the Michigan Department of Environmental Quality in connection with a well permit under Part 615 of the Natural Resources and Environmental Protection Act, MCL 524.61501, et seq, and the administrative rules promulgated under Part 615, as amended.
 2. Hydrogeological analysis.
 3. Emergency Response Plan. Pursuant to State and Federal law, the operator shall provide any information necessary to assist the City Emergency Services Department with an emergency response plan and hazardous materials survey establishing written procedures to minimize any hazard resulting from the operation. The Emergency Response Plan should include emergency contact information.
 4. Reclamation Plan. A written statement that describes how the land will be returned to a stable and productive condition post drilling operations.
 5. Operations Plan to include:
 - i. Site ingress/egress
 - ii. Haul Route Map. Vehicle Routes for Truck Traffic. Construction vehicles and commercial trucks, associated with drilling and/or production operations shall be restricted to roads designated by the City Engineer.
 - iii. Hours of Operation. State listed hours of operation.
 - iv. Soil Erosion, Mud and Dust Control Plan.
 - v. Noise Control Plan. Prior to the granting of special use approval and the commencement of operations, the petitioner shall submit a noise management plan, detailing how the equipment used in the drilling, completion, transportation, or production of a well complies with the maximum permissible noise levels of the Zoning Ordinance. If Special Use Approval is granted, the Petitioner shall be responsible for verifying compliance with this section and the noise management plan after the installation of the equipment. The noise management plan shall:
 - i. Identify operational noise impacts
 - ii. Provide documentation establishing the ambient noise level prior to construction.
 - iii. Detail how the impacts will be mitigated. In determining noise mitigation, specific site characteristics shall be considered, including but not limited to the following:
 1. Nature and proximity of adjacent development, location, and type
 2. Seasonal and prevailing weather patterns, including wind directions
 3. Vegetative cover on or adjacent to the site

4. Topography
- vi. Odor and Fume Control Plan
 - vii. Pollution Prevention Plan
 - viii. Impact Mitigation Plan
 - ix. Monitoring controls.

Section 3. Savings

All proceedings pending, and all rights and liabilities existing, acquired or incurred, at the time this Ordinance takes effect, are hereby saved. Such proceedings may be consummated under and according to the ordinance in force at the time such proceedings were commenced. This ordinance shall not be construed to alter, affect, or abate any pending prosecution, or prevent prosecution hereafter instituted under any ordinance specifically or impliedly repealed or amended by this ordinance adopting this penal regulation, for offenses committed prior to the effective date of this ordinance; and new prosecutions may be instituted and all prosecutions pending at the effective date of this ordinance may be continued, for offenses committed prior to the effective date of this ordinance, under and in accordance with the provisions of any ordinance in force at the time of the commission of such offense.

Section 4. Severability Clause

Should any word, phrase, sentence, paragraph or section of this Ordinance be held invalid or unconstitutional, the remaining provision of this ordinance shall remain in full force and effect.

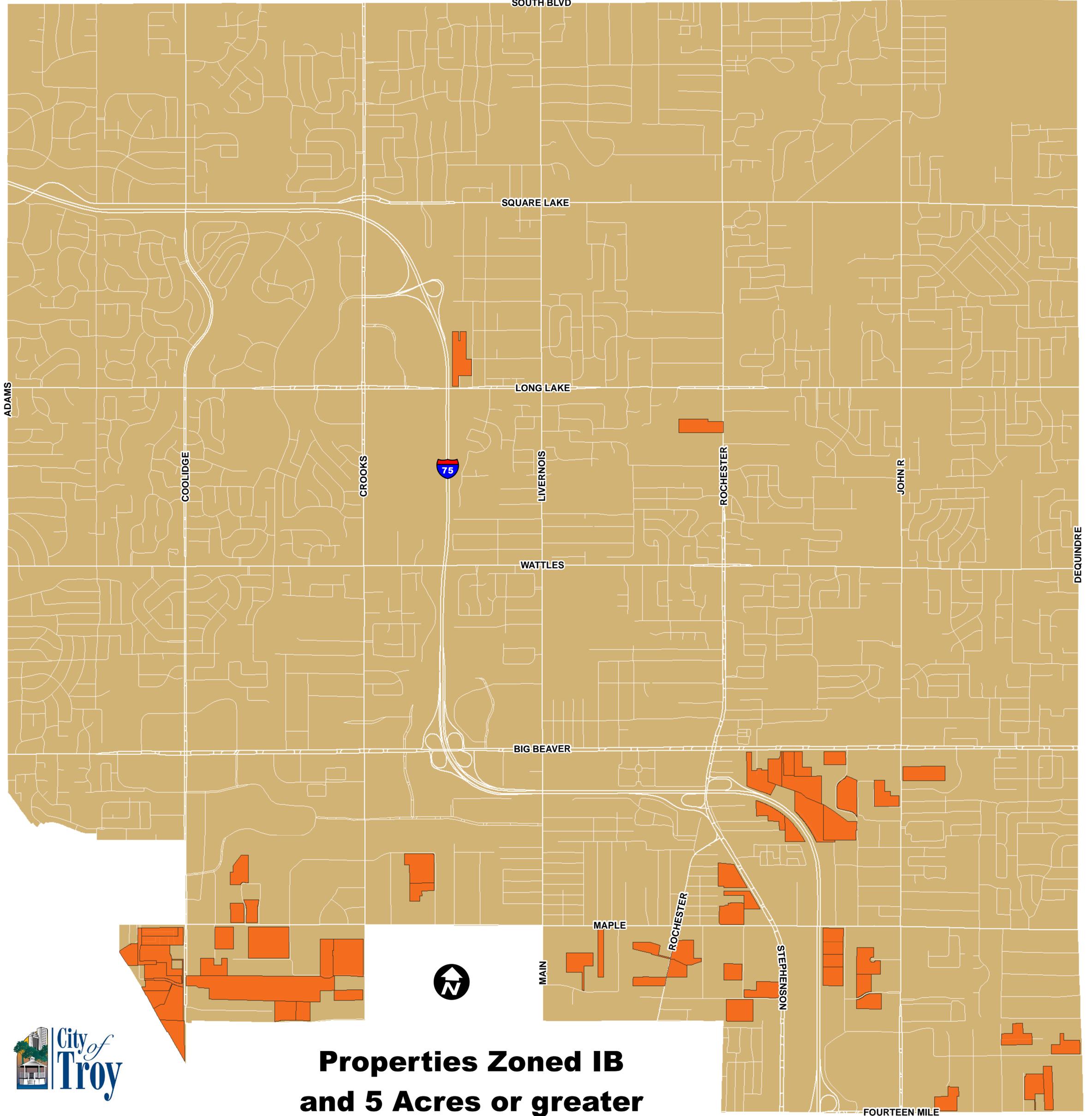
Section 5. Effective Date

This amendment to the Zoning Ordinance shall take effect seven (7) days after publication, which shall be published within 15 days of adoption, as required the Michigan Zoning Enabling Act (Act 110 of 2006).

This Ordinance is enacted by the Council of the City of Troy, Oakland County, Michigan, at a regular meeting of the City Council held at City Hall, 500 W. Big Beaver, Troy, MI, on the _____ day of _____, 2015.

Dane Slater, Mayor

Aileen Bittner, City Clerk



SOUTH BLVD

SQUARE LAKE

LONG LAKE

WATTLES

BIG BEAVER

MAPLE

MAIN

STEPHENSON

FOURTEEN MILE

ADAMS

COOLIDGE

CROOKS

LIVERNOS

ROCHESTER

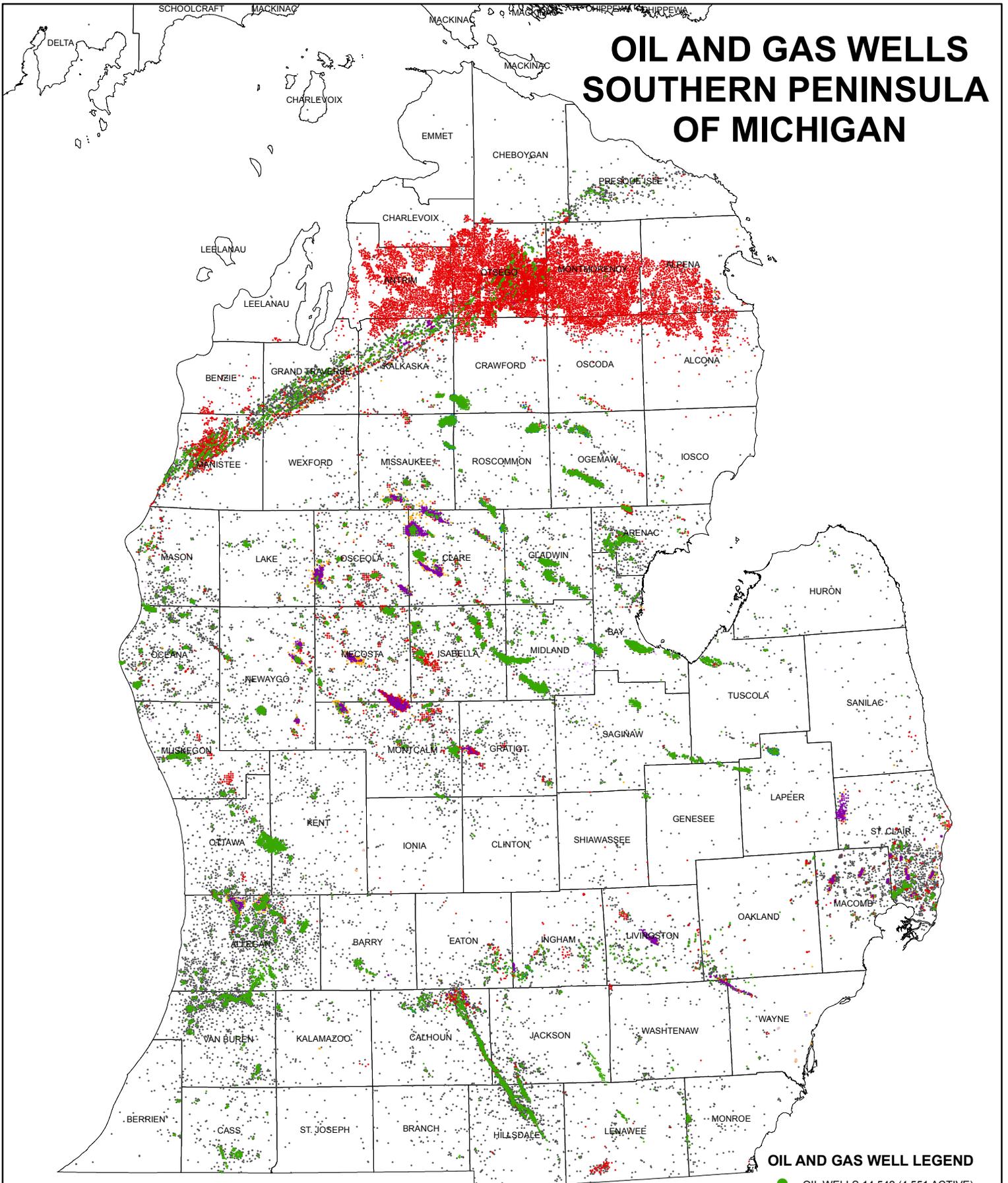
JOHN R

DEQUINDRE



Properties Zoned IB and 5 Acres or greater

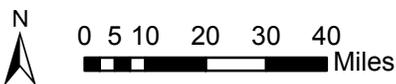
OIL AND GAS WELLS SOUTHERN PENINSULA OF MICHIGAN



OIL AND GAS WELL LEGEND

- OIL WELLS 14,542 (4,551 ACTIVE)
- GAS WELLS 13,269 (11,191 ACTIVE)
- DRY HOLES 22,067
- GAS STORAGE WELLS 3,016
- BRINE DISPOSAL WELLS 1,187
- WATER INJECTION WELLS 787
- OTHER WELL TYPES 1,192

Michigan Department of Environmental Quality
Office of Oil, Gas, and Minerals
September 2012





Hydraulic Fracturing of Oil and Gas Wells in Michigan

The Department of Environmental Quality (DEQ), Office of Oil, Gas, and Minerals (OOGM) is charged with the responsibility of ensuring the best use of Michigan's geological resources for their social and economic benefits while protecting the environment and public health and safety. The OOGM employs over 50 staff members who live and work in the communities they protect. As the use of hydraulic fracturing has expanded and developed over the past several decades, the OOGM has worked to stay ahead of technological changes by implementing rules and regulations that address potential risks to the environment and public health and safety. Recent advances in technology have opened up new areas to oil and gas development. While this is exciting economic news for some areas, it also poses potential risks to the region's ground and surface waters as well as other environmental resources. The OOGM staff have worked with environmental groups and the oil and gas industry to address concerns before risks become reality. This document was created to help the public by providing them with basic information on what hydraulic fracturing is, why it is needed and what the OOGM has done to protect the public and resources of the State of Michigan. Terms in **bold face** type are defined in the glossary at the end of this document.



DEQ-OOGM Geologist inspecting floor of rig during drilling operation.

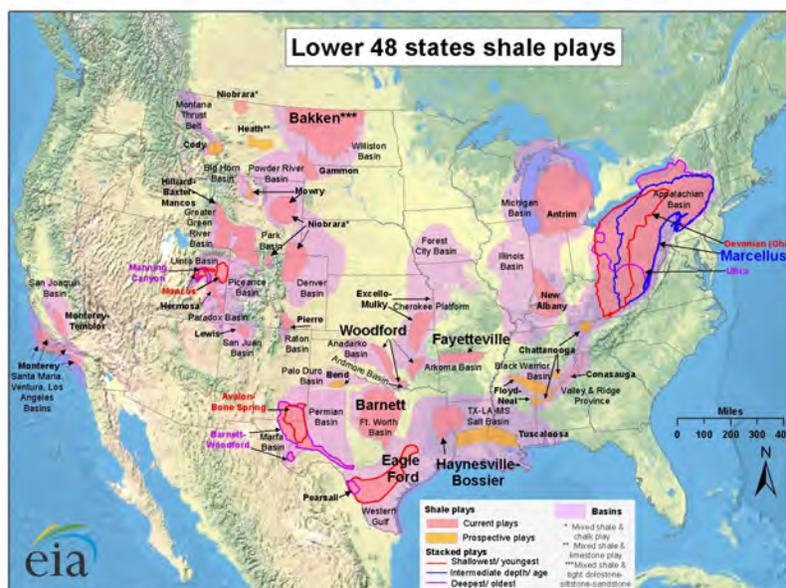
What is Hydraulic Fracturing?

Hydraulic fracturing is part of the completion of some oil or natural gas wells after they are drilled. Hydraulic fracturing involves pumping water at high pressure to create fractures in reservoir rock that allow the oil or natural gas to flow more freely to the well bore. Proppants, usually silica sand, are added to the water to hold the fractures open once they are created. Small concentrations of chemicals are added to improve the effectiveness of the fracture job.

Recently, hydraulic fracturing and **horizontal drilling** have been utilized, to increase exposure of more reservoir rock formation to the well bore to maximize production. **Horizontal drilling** has been used commercially since the 1980s but has not been widely applied until recent years. Hydraulic fracturing has been utilized throughout the United States for more than 60 years and allows production in tight geologic formations which would otherwise not yield economical amounts of oil and natural gas. In the past 60 years significant advancements of the technology have occurred in such areas proppant development, fluid advances, modeling and simulation, and horizontal well integration. After completing a hydraulic fracture treatment the fracturing fluid begins to flow back through the well casing to the wellhead. Typically, 25 to 75 percent of the hydraulic fracturing fluid is recovered as **“flowback”** water within a few weeks or months after hydraulic fracturing. The rest remains in the oil and gas-bearing formation or is recovered over time along with the oil and gas that is produced.

Hydraulic Fracturing in Michigan

Michigan has comprehensive laws and rules, enforced by the DEQ, that regulate hydraulic fracturing as well as every other aspect of oil and gas drilling and production. The DEQ works to consider the risks of hydraulic fracturing and to institute regulations that minimize those risks. In Michigan, since 1952, when the first hydraulic fracture stimulation was performed in Michigan, more than 12,000 wells have been hydraulically fractured. Most of these are Antrim Shale Formation gas wells in the northern Lower Peninsula. Hydraulic fracturing procedures may take one to fifteen days depending on the length of the interval to be treated. OOGM staff inspect the sites regularly during drilling and **completion** activities. Recent interest in horizontally drilling and/or hydraulically fracturing formations has focused on the Utica-Collingwood in Northern Michigan, the A1 Carbonate in Mid and West Michigan, and the Black River (Van Wert zone) in Southern Michigan. The formations are more than 3,000 feet deep (4,000 to 10,000 feet below ground surface) and due to the long lateral lengths (up to 2 miles) are expected to require significant volumes of fluids for hydraulic fracturing. In response, the Supervisor of Wells Instruction 1-2011 was issued, which improves environmental protection measures and fosters greater transparency. The Instruction applies to **high volume hydraulic fracturing well completions**. It sets standards for water withdrawal evaluation; monitoring and reporting of fracturing pressures and rates; providing information on chemical additives; and reporting of **flowback** water.



Source: Energy Information Administration based on data from various published studies.
Updated: May 9, 2011

Major Shale Gas plays in the Contiguous U.S., (EIA, 2011)



Aerial photograph of a large scale staged hydraulic fracturing job performed on an Utica-Collingwood well in Kalkaska County in 2011. Hydraulic Fracturing operations at Antrim Shale wells are not done on such a large scale.



Aerial photograph of a Utica- Collingwood well during "flowback" after hydraulic fracturing is complete. The Freshwater pit, shown in the upper right, remains in place from the hydraulic fracturing but is not used during the flowback stage.

Hydraulic Fracturing Concerns:

Recent issues raised in other states have thrust it into the forefront of people's attentions across the state. The public has voiced its concerns about hydraulic fracturing and the DEQ has been listening. Responses to common questions the public is asking are addressed on the following pages.

Q: Will hydraulic fracturing affect my groundwater?

A: Fresh water is needed to hydraulically fracture a well. The quantity of water needed varies based on the type of well being completed with hydraulic fracturing. A vertical well that is hydraulically fractured may use about 50,000 to 100,000 gallons of water while a horizontal well that is hydraulically fractured may use up to 20,000,000 gallons of water or more. Withdrawal of water for oil and gas operations is exempt from the requirements of Michigan's water withdrawal statute (Part 327 of Act 451 Natural Resources Environmental Protection Act (NREPA)); however, the DEQ requires the operator to perform the same water withdrawal impact assessment as any other user of large volumes of water. Additionally, in situations where a freshwater supply well is within one-quarter mile of the proposed hydraulic fracturing withdrawal location, the DEQ requires installation of an observation well to monitor water levels. The DEQ reviews each application for a **high-volume hydraulic fracturing well completion** and determines if a large-volume water withdrawal is being proposed. If so, the DEQ will screen that proposed withdrawal using Michigan's **Water Withdrawal Assessment Tool**. Under no circumstances will water withdrawals that are determined to create an Adverse Resource Impact to the waters of the State be approved.

Q: Where does the water go?

A: Produced water (**brine**) must be properly handled and disposed of in order to protect public health and the environment. In Michigan, strict rules determine the handling and disposal of these fluids: fluids must be containerized in steel tanks (with secondary containment) until they can be transported to disposal wells (regulated by the DEQ and Environmental Protection Agency) where the fluid is injected into deep rock layers isolated from fresh water supplies. The DEQ also requires reporting of the volume of **flowback** water recovered after a hydraulic fracturing operation.

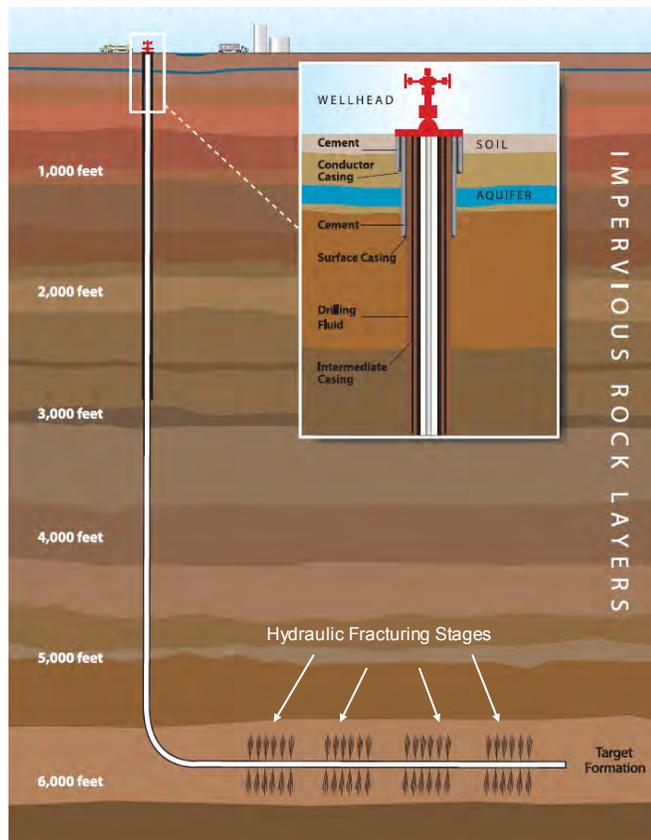
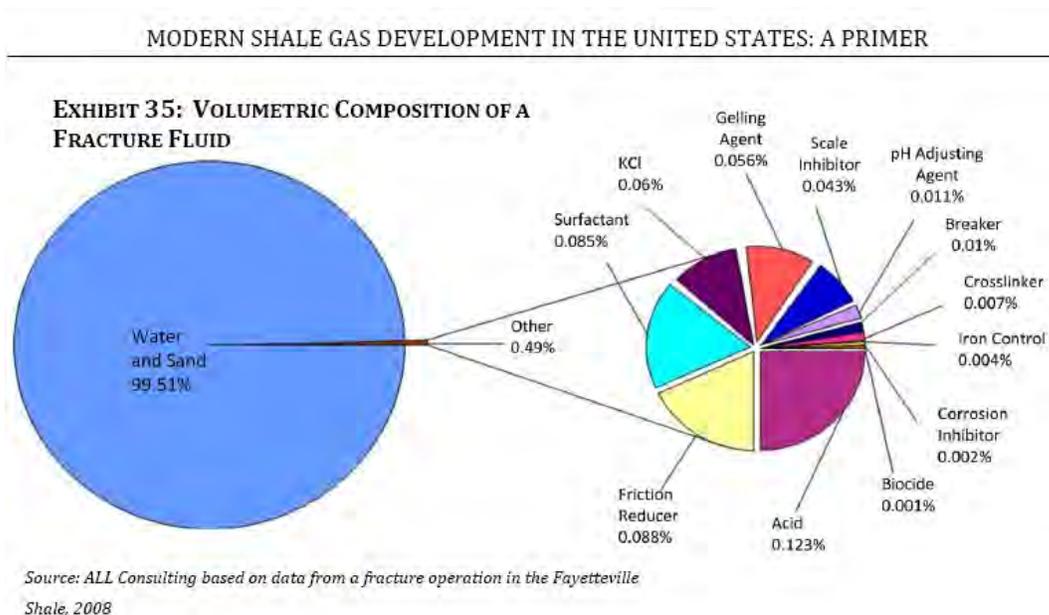


Figure depicting a horizontal well that has been hydraulic fractured, Modified from API, 2012.

Q: What chemicals are used in Hydraulic Fracturing?

A: The hydraulic fracturing fluid is generally composed of approximately 99.5% fresh water and sand and 0.5% chemical additives including friction reducers, biocides, stabilizers, acids, and compounds that increase the viscosity of the fluid. Like many household cleaners and solvents, some of the chemical additives used in hydraulic fracturing can have adverse health or environmental impacts if they are not properly handled. Oil and gas operators are required to provide to the DEQ copies of all Material Safety Data Sheets (MSDSs) for additives used in **high volume hydraulic fracturing well completions**. The MSDSs include information on physical characteristics, toxicity, health effects, first aid, reactivity, storage, disposal, protective equipment, and spill response. The DEQ posts the MSDSs on the Department's web site for public review. While the details on some of the chemical compounds used in hydraulic fracturing are exempted from disclosure on the MSDSs under federal law, the MSDSs will provide enough information for the DEQ to track and monitor spills. More information about chemicals used in hydraulic fracturing can be found at Fracfocus.org.

What's in Fracturing Fluid?

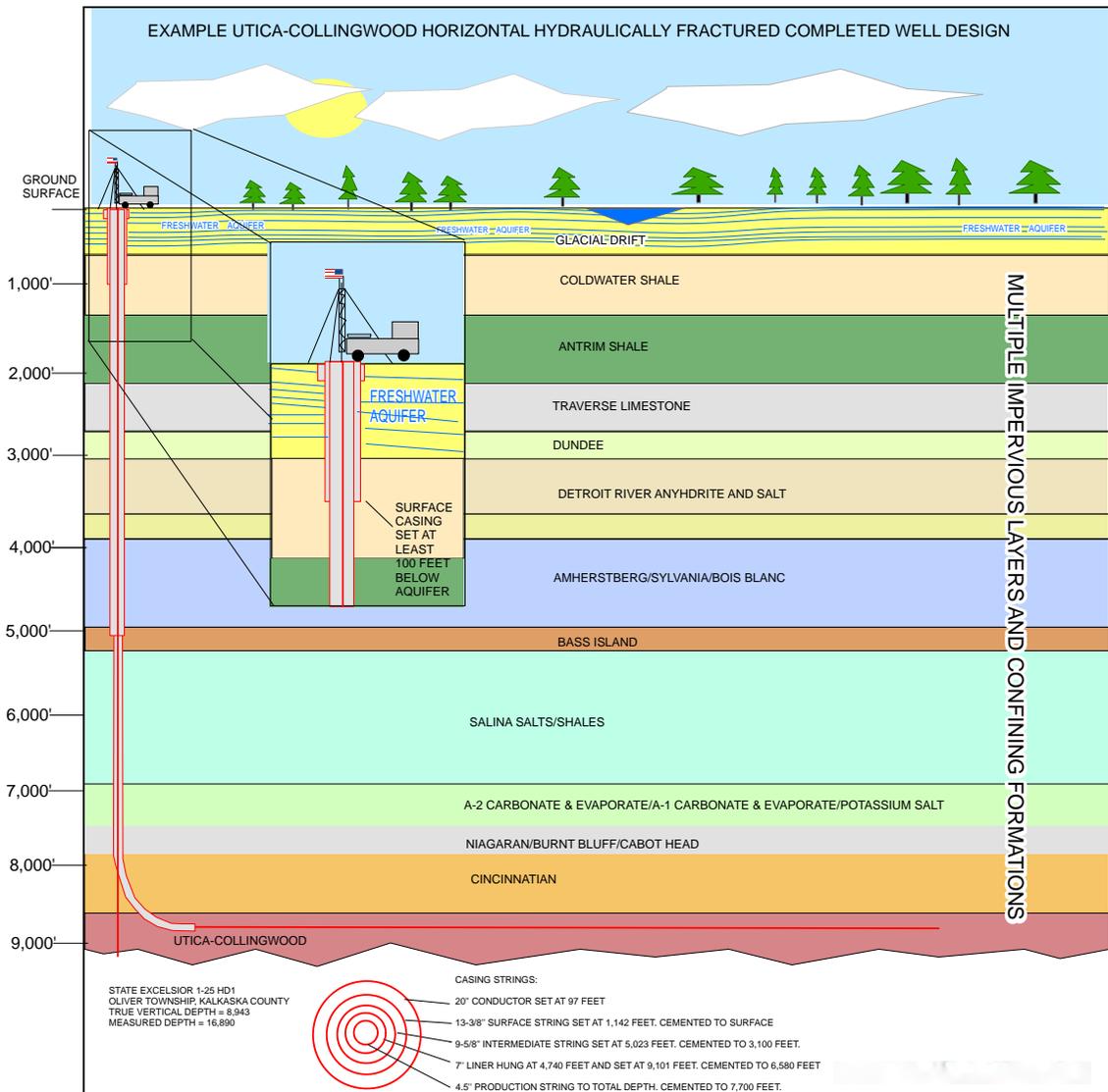


Q: What if there is a spill?

A: Surface spills of chemical additives or **flowback** water can have adverse environmental or public health impacts. Michigan requires **secondary containment** under tanks and other areas where spills are most likely to occur. If a spill does occur, it must be reported immediately to the DEQ, and cleaned up according to strict legal requirements identified in Part 201 of Act 451 (NREPA).

Q: Will my groundwater become contaminated?

A: A major public concern surrounding oil and natural gas development and particularly hydraulic fracturing is the migration of gas or other fluids out of the reservoir and into fresh water aquifers. In other states where migration of gas into freshwater aquifers has occurred, it has been the result of improper well construction or well construction problems not from hydraulic fracturing itself. The installation of steel pipe (“casing”) encased in cement is critical to preventing migration of gas or fluids. Michigan has strong regulations that require each oil and gas well to have a casing and cementing plan that will contain gas and other fluids within the well bore and the formation. Surface casing must be set a minimum of 100 feet into competent bedrock and at least 100 feet below any fresh water zones, this casing is cemented from the base to the ground surface. For most deeper wells, and intermediate casing string is set and cemented for added protection. Before fracturing or other completion operations can take place, a production casing must be set to the depth of the target reservoir and cemented in place. Geology varies across the state; therefore, every casing and sealing plan is thoroughly reviewed for site specific geologic characteristics. Additional strings of casing or revisions to the casing and sealing plan may be required by the DEQ to ensure that the plan will prevent migration of gas or fluids.



Glossary

Aquifer: Sediment or rock formation that contains water and porous and permeable enough to transmit water to wells and springs.

Brine: All nonpotable water resulting, obtained, or produced from the exploration, drilling or production of oil or gas, or both.

Casing: Heavy steel pipe placed in an open hole and cemented into place. Casing is designed to withstand high pressures, large tensile loads and resist chemical reaction and corrosion. A casing string refers to a series of connected segments of casing or pipe that serves to prevent the hole from caving, keep the fluids inside the casing string from migrating to porous formations, prevents unwanted fluids from entering the hole, and protects fresh water aquifers.

Completion: Equipment and procedures used to bring a wellbore into production and enhance productivity after a well has been drilled, cased and sealed.

High volume hydraulic fracturing well completion: A well completion operation that is intended to use a total of more than 100,000 gallons of hydraulic fracturing fluid.

Horizontal Drilling: Deviation of a wellbore from vertical toward a horizontal inclination in order to intersect targeted fractures and/or maximize contact with a productive formation.

Large Volume Water Withdrawal: A water withdrawal intended to produce a cumulative total of over 100,000 gallons of water per day when averaged over a consecutive 30-day period. Use of surface water is prohibited for activities regulated under Part 615.

Flowback Water: Flowback water is a mix of fracturing fluids and native water from the formation itself (often termed “produced water”) that contains salts and other dissolved constituents. These fluids come to the surface through casing after the well has been completed.

Reservoir: A geological formation that contains economically producible quantities of oil and/or gas.

Secondary containment: A bermed plastic lining or other physical barrier that is used to contain primary containers and designed to catch spilled materials from the primary container. Secondary containment provides redundancy to primary containers, easing clean-up and protecting the environment.

Water Withdrawal Assessment Tool (WWAT): A computer program designed to estimate the likely ecological impact of a proposed water withdrawal on nearby streams and rivers. The WWAT considers the geographic variations in Michigan’s streams, geology, precipitation and fish community types to formulate mathematical models of stream flow, groundwater characteristics, and fish ecology. Stream flow models are used in combination with groundwater models to estimate how much a well will reduce the flow in nearby streams and to assess any impact to the types and abundance of fish that live there, serving as indicators to health of the overall stream ecosystem. (www.miwwat.org).



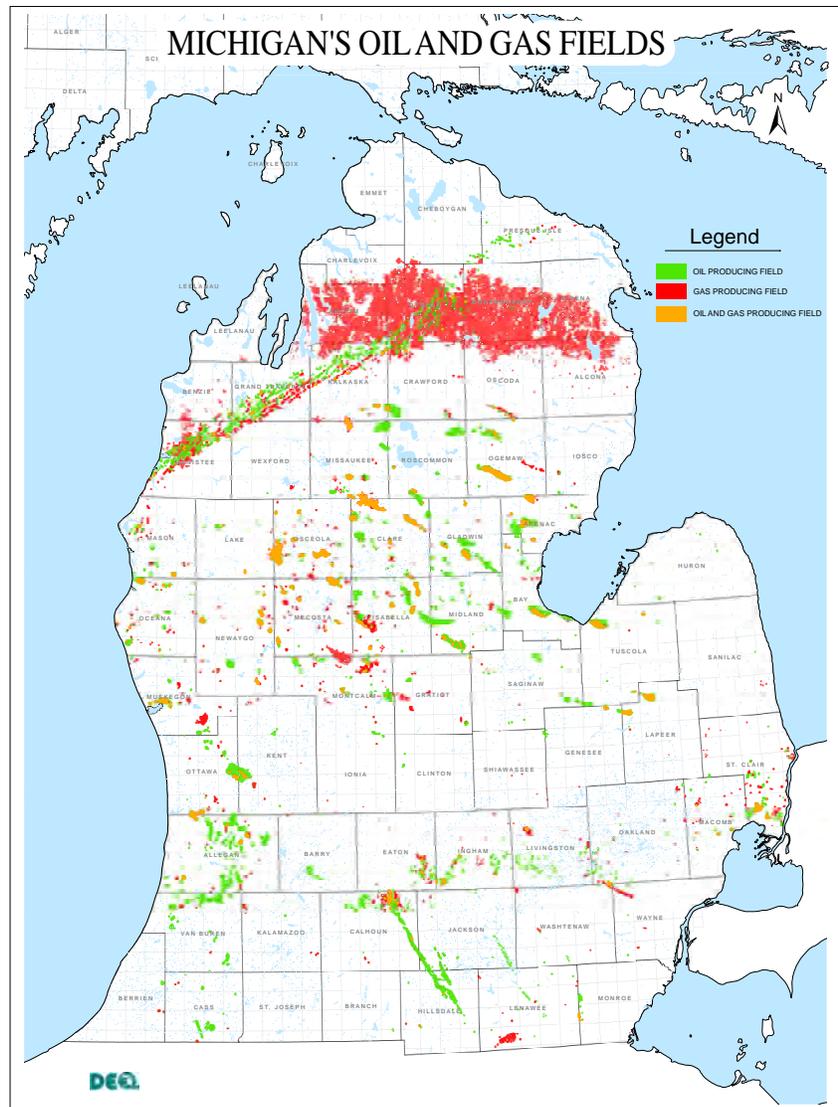
Photograph of a Utica–Collingwood well being drilled in Kalkaska County.

More Information / Contact Us

Go to our homepage at www.michigan.gov/ogs and click on “hydraulic fracturing” to find Material Safety Data Sheets for the additives used in hydraulic fracturing completions, hydraulic fracturing presentations, current maps, regulations, Supervisor of Wells Instruction 1-2011 listing of wells and much more.

Still have questions? Contact the DEQ-OOGM at:
Michigan DEQ, Office of Oil, Gas, and Minerals, P.O. Box 30256, Lansing, MI 48909-7756.

To report an environmental emergency situation, call our 24-hour Pollution Emergency Alerting System (PEAS) at 1-800-292-4706.



References:

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NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION ACT (EXCERPT)
Act 451 of 1994

PART 615
SUPERVISOR OF WELLS

324.61501 Definitions.

Sec. 61501. Unless the context requires a different meaning, the words defined in this section have the following meanings when used in this part:

- (a) "Department" means the department of environmental quality.
- (b) "Field" means an underground reservoir or reservoirs containing oil or gas, or both. Field also includes the same general surface area that is underlaid or appears to be underlaid by at least 1 pool. Field and pool have the same meaning if only 1 underground reservoir is involved. However, field, unlike pool, may relate to 2 or more pools.
- (c) "Fund" means the oil and gas regulatory fund created in section 61525b.
- (d) "Gas" means a mixture of hydrocarbons and varying quantities of nonhydrocarbons in a gaseous state which may or may not be associated with oil, and includes those liquids resulting from condensation.
- (e) "Illegal container" means a receptacle that contains illegal oil or gas or illegal products.
- (f) "Illegal conveyance" means a conveyance by or through which illegal oil or gas or illegal products are being transported.
- (g) "Illegal oil or gas" means oil or gas that has been produced by an owner or producer in violation of this part, a rule promulgated under this part, or an order of the supervisor issued under this part.
- (h) "Illegal product" means a product of oil or gas or any part of a product of oil or gas that was knowingly processed or derived in whole or in part from illegal oil or gas.
- (i) "Market demand" means the actual demand for oil or gas from any particular pool or field for current requirements for current consumption and use within or outside the state, together with the demand for such amounts as are necessary for building up or maintaining reasonable storage reserves of oil or gas or the products of oil or gas.
- (j) "Oil" means natural crude oil or petroleum and other hydrocarbons, regardless of gravity, that are produced at the well in liquid form by ordinary production methods and that are not the result of condensation of gas after it leaves the underground reservoir.
- (k) "Owner" means the person who has the right to drill a well into a pool, to produce from a pool, and to receive and distribute the value of the production from the pool for himself or herself either individually or in combination with others.
- (l) "Pool" means an underground reservoir containing a common accumulation of oil or gas, or both. Pool includes a productive zone of a general structure that is completely separated from any other zone in the structure, or is declared to be a pool by the supervisor of wells.
- (m) "Producer" means the operator, whether owner or not, of a well or wells capable of producing oil or gas or both in paying quantities.
- (n) "Product" means any commodity or thing made or manufactured from oil or gas, and all derivatives of oil or gas, including refined crude oil, crude tops, topped crude, processed crude petroleum, residue treated crude oil, residuum, gas oil, naphtha, distillate, gasoline, casing-head gasoline, natural gas gasoline, kerosene, benzene, wash oil, waste oil, lubricating oil, and blends or mixtures of oil or gas or any derivatives of oil or gas whether enumerated or not.
- (o) "Supervisor" or "supervisor of wells" means the department.
- (p) "Tender" means a permit or certificate of clearance, approved and issued or registered under the authority of the supervisor, for the transportation of oil or gas or products.
- (q) "Waste" in addition to its ordinary meaning includes all of the following:
 - (i) "Underground waste", as those words are generally understood in the oil business, and including all of the following:
 - (A) The inefficient, excessive, or improper use or dissipation of the reservoir energy, including gas energy and water drive, of any pool, and the locating, spacing, drilling, equipping, operating, or producing of a well or wells in a manner to reduce or tend to reduce the total quantity of oil or gas ultimately recoverable from any pool.
 - (B) Unreasonable damage to underground fresh or mineral waters, natural brines, or other mineral deposits from operations for the discovery, development, and production and handling of oil or gas.
 - (ii) "Surface waste", as those words are generally understood in the oil business, and including all of the following:

(A) The unnecessary or excessive surface loss or destruction without beneficial use, however caused, of gas, oil, or other product, but including the loss or destruction, without beneficial use, resulting from evaporation, seepage, leakage, or fire, especially a loss or destruction incident to or resulting from the manner of spacing, equipping, operating, or producing a well or wells, or incident to or resulting from inefficient storage or handling of oil.

(B) The unnecessary damage to or destruction of the surface; soils; animal, fish, or aquatic life; property; or other environmental values from or by oil and gas operations.

(C) The unnecessary endangerment of public health, safety, or welfare from or by oil and gas operations.

(D) The drilling of unnecessary wells.

(iii) "Market waste", which includes the production of oil or gas in any field or pool in excess of the market demand as defined in this part.

History: Add. 1995, Act 57, Imd. Eff. May 24, 1995;—Am. 1998, Act 115, Imd. Eff. June 9, 1998;—Am. 1998, Act 252, Imd. Eff. July 10, 1998;—Am. 1998, Act 303, Imd. Eff. July 28, 1998.

Popular name: Act 451

Popular name: NREPA

Popular name: Supervisor of Wells

324.61502 Construction of part.

Sec. 61502. It has long been the declared policy of this state to foster conservation of natural resources so that our citizens may continue to enjoy the fruits and profits of those resources. Failure to adopt such a policy in the pioneer days of the state permitted the unwarranted slaughter and removal of magnificent timber abounding in the state, which resulted in an immeasurable loss and waste. In an effort to replace some of this loss, millions of dollars have been spent in reforestation, which could have been saved had the original timber been removed under proper conditions. In past years extensive deposits of oil and gas have been discovered that have added greatly to the natural wealth of the state and if properly conserved can bring added prosperity for many years in the future to our farmers and landowners, as well as to those engaged in the exploration and development of this great natural resource. The interests of the people demand that exploitation and waste of oil and gas be prevented so that the history of the loss of timber may not be repeated. It is accordingly the declared policy of the state to protect the interests of its citizens and landowners from unwarranted waste of gas and oil and to foster the development of the industry along the most favorable conditions and with a view to the ultimate recovery of the maximum production of these natural products. To that end, this part is to be construed liberally to give effect to sound policies of conservation and the prevention of waste and exploitation.

History: Add. 1995, Act 57, Imd. Eff. May 24, 1995.

Popular name: Act 451

Popular name: NREPA

Popular name: Supervisor of Wells

324.61503 Supervisor of wells; assistants; commission as appeal board; hearing; compensation and expenses; office.

Sec. 61503. (1) The supervisor of wells shall designate suitable assistants as are required to implement this part.

(2) The commission shall act as an appeal board regarding the issuance, denial, suspension, revocation, annulment, withdrawal, recall, cancellation, or amendment of a permit under this part. When a producer or owner considers an order, action, inaction, or procedure as proposed, initiated, or made by the supervisor to be burdensome, inequitable, unreasonable, or unwarranted, the producer or owner may appeal to the commission or the court for relief from the order, action, inaction, or procedure as provided in this act. The chairperson of the commission shall set a date and place to hear the appeal, which may be at a regular meeting of the commission or a special meeting of the commission called for that purpose.

(3) The supervisor and employees, in addition to their salaries, shall receive their reasonable expenses while away from their homes traveling on business connected with their duties. A member of the commission shall not receive compensation for discharging duties under this part; however, a member is entitled to reasonable expenses while traveling in the performance of a duty imposed by this part. Salaries and expenses authorized in this part shall be paid out of the state treasury in the same manner as the salaries and expenses of other officers and employees of the department are paid.

(4) The department of management and budget shall furnish suitable offices for the use of the supervisor and his or her employees.

History: Add. 1995, Act 57, Imd. Eff. May 24, 1995.

Popular name: Act 451

Popular name: NREPA

Popular name: Supervisor of Wells

324.61503a Gas lease; duties of lessee; monthly revenue statements and payments; initiation; deferment.

Sec. 61503a. (1) Beginning 12 months after the effective date of this section, a person who has entered into a gas lease as a lessee prior to or after the effective date of this section shall do all of the following:

(a) Starting after production begins, for a well that begins continuous gas production after the effective date of this section, or starting on the effective date of this section for a well that began continuous gas production on or before the effective date of this section, provide the lessor who has an interest in the leased property with monthly revenue statements written in plain English that provide all of the following:

(i) Under the heading "unit price", the price received by the lessee per 1,000 cubic feet or 1,000,000 BTUs of gas sold. The lessee shall pay to the lessor his or her proper share of the gross proceeds or value, as provided in the lease.

(ii) A statement of the deductions taken from the lessor's royalty, and the purpose of those deductions. The statement of the deductions shall be itemized, except that a lessee may group deductions under general categories if the lessee states that a separate itemized statement of the deductions will be furnished upon written request and states the address to which a written request for an itemized statement should be directed. This section does not prohibit a lessee from making deductions on an estimated basis for a calendar year or other 12-month accounting period if this is disclosed in the monthly revenue statement or the separate itemized statement. If an estimate is used, the lessee shall determine the actual amount and make any necessary adjustments within 180 days after the end of the calendar year or other 12-month accounting period. However, if any costs have not been finally determined, the lessee may reserve an amount which the lessee considers in good faith to be adequate to cover the costs that have not been finally determined and shall make any necessary adjustments when the actual costs have been finally determined.

(b) Starting at the end of the calendar year or other 12-month accounting period after production begins for a well that begins continuous production after the effective date of this section, or starting at the end of the calendar year or other 12-month accounting period when this section becomes effective for a well that began continuous production on or before the effective date of this section, prepare an annual accounting of gas sales from the leased property and any deductions taken from the lessor's royalty during the calendar year or other 12-month accounting period. The lessee shall complete the accounting within 180 days after the end of the calendar year or other 12-month accounting period. However, if any costs have not been finally determined, the lessee may account for these on the basis of a reserve which the lessee considers in good faith to be adequate to cover the costs that have not been finally determined, and shall prepare a supplemental accounting when the actual costs have been finally determined. The lessee shall notify the lessor of the availability of the accounting within 180 days after the end of the calendar year or other 12-month accounting period, and shall furnish a copy of the accounting upon request of the lessor within 30 days of receipt of the request. The notification as to the availability of the accounting may be made on a monthly revenue statement and need not be a separate document.

(2) Subject to section 61503b(4), the monthly revenue statements and payments under subsection (1)(a) shall be initiated promptly after the determination of the divisions of interest of the parties entitled to share in the production, unless a valid agreement between the lessee and the lessor provides otherwise. However, if the entitlement of the lessor to receive payment is in question because of lack of good and marketable record title or because of any circumstance that may expose the lessee to the risk of multiple liability or liability to a third party if the payment is made, the lessee may defer payment to that lessor until the title or other circumstance has been resolved, unless a valid agreement between the lessee and the lessor provides otherwise. If the mailing address of the lessor, or place where payment should be made, is unknown, payment may be deferred until the lessee receives that information. If the total amount of the royalties is less than \$50.00 at the end of any month, payment may be deferred until the total amount reaches at least \$50.00, unless a valid agreement between the lessor and the lessee provides otherwise.

History: Add. 1998, Act 127, Eff. Mar. 28, 2000.

Compiler's note: Enacting section 2 of 1998 PA 127, which provided that 1998 PA 127 would not take effect unless House Bill No. 4259 of the 89th Legislature was enacted into law, was repealed by Enacting section 1 of 1999 PA 246.

Popular name: Act 451

Popular name: NREPA

Popular name: Supervisor of Wells

324.61503b Postproduction costs.

Sec. 61503b. (1) A person who enters into a gas lease as a lessee after March 28, 2000 shall not deduct from the lessor's royalty any portion of postproduction costs unless the lease explicitly allows for the deduction of postproduction costs. If a lease explicitly provides for the deduction of postproduction costs, the lessee may only deduct postproduction costs for the following items, unless the lease explicitly and specifically provides for the deduction of other items:

(a) The reasonable costs of removal of carbon dioxide (CO₂), hydrogen sulfide (H₂S), molecular nitrogen (N₂), or other constituents, except water, the removal of which will enhance the value of the gas for the benefit of the lessor and lessee.

(b) Transportation costs after the point of entry into any of the following:

(i) An independent, nonaffiliated, third-party-owned pipeline system.

(ii) A pipeline system owned by a gas distribution company or any subsidiary of the gas distribution company, which is regulated by the Michigan public service commission.

(iii) An affiliated pipeline system, if the rates charged by the pipeline system have been approved by the Michigan public service commission, or if the rates charged are reasonable, as compared to independent pipeline systems, based on the pipeline system's location, distance, cost of service, and other pertinent factors.

(2) A lessee shall not charge postproduction costs incurred on gas produced from 1 drilling unit, pooled or communitized area, or unit area against a lessor's royalty for gas produced from another drilling unit, pooled or communitized area, or unit area. As used in this subsection, "unit area" means the formation or formations that are unitized and surface acreage that is a part of the unitized lands, as described in either of the following:

(a) The plan for unit operations that is the subject of the supervisor's order as provided in section 61706.

(b) An applicable agreement providing for unit operations.

(3) If a person who has entered into a gas lease as a lessee prior to or after March 28, 2000 charges the lessor for any portion of postproduction costs, the lessee shall notify the lessor in writing of the availability of the following information and if the lessor requests in writing to receive this information, the lessee shall provide the lessor, in writing, a specific itemized explanation of all postproduction costs to be assessed.

(4) A division order or other document that includes provisions that stipulate how production proceeds are distributed, received by the lessor from the lessee, shall not alter or define the terms of a lease unless voluntarily and explicitly agreed to by both parties in a signed document or documents in which the parties expressly indicate their intention to amend the lease. A lessee shall not precondition the payment of royalties upon the lessor signing a division order or other document that stipulates how production proceeds are distributed, except as provided in this subsection. As a condition for the payment of royalties under a lease other than a lease granted by the state of Michigan, a lessee or other payor shall be entitled to receive a signed division order from the payee containing only the following provisions, unless other provisions have been voluntarily and explicitly agreed to by both parties in a signed document or documents in which the parties expressly indicate their intention to waive the provisions of this subsection:

(a) The effective date of the division order.

(b) A description of the property from which the oil or gas is being produced and the type of production.

(c) The fractional or decimal interest in production, or both, claimed by the payee, the type of interest, the certification of title to the share of production claimed, and, unless otherwise agreed to by the parties, an agreement to notify the payor at least 1 month in advance of the effective date of any change in the interest in production owned by the payee and an agreement to indemnify the payor and reimburse the payor for payments made if the payee does not have merchantable title to the production sold.

(d) The authorization to suspend payment to the payee for production until the resolution of any title dispute or adverse claim asserted regarding the interest in production claimed by the payee.

(e) The name, address, and taxpayer identification number of the payee.

(f) A statement that the division order does not amend any lease or operating agreement between the interest owner and the lessee or operator or any other contracts for the purchase of oil or gas.

History: Add. 1999, Act 246, Eff. Mar. 28, 2000;—Am. 2000, Act 441, Imd. Eff. Jan. 9, 2001.

Popular name: Act 451

Popular name: NREPA

Popular name: Supervisor of Wells

324.61503c Violation of MCL 324.61503a or MCL 324.61503b; penalty; injunction or damages; separate offenses; recovery of postproduction costs and attorney fees; notice.

Sec. 61503c. (1) Notwithstanding section 61522, a person who knowingly violates section 61503a or

61503b is responsible for the payment of a civil fine of not more than \$1,000.00. A default in the payment of a civil fine or costs ordered under this section or an installment of the fine or costs may be remedied by any means authorized under the revised judicature act of 1961, 1961 PA 236, MCL 600.101 to 600.9948.

(2) The attorney general or the lessor of a gas lease with respect to his or her lease may bring an action in circuit court for injunctive relief or damages, or both, against a person who violates section 61503a or 61503b.

(3) If a person who has entered into a gas lease as a lessee violates section 61503a or 61503b, each day the violation continues constitutes a separate offense only for 5 days; thereafter, each day the violation continues does not constitute a separate offense. If a person who has entered into a gas lease as a lessee violates section 61503a or 61503b and such a violation affects more than 1 lessor having an interest in the same well, pooled unit, or unitized area, the violation as to all lessors constitutes only 1 offense.

(4) If a court finds that a lessee deducted postproduction costs from a lessor's royalty contrary to section 61503b(1), the lessor may recover as damages the amount of postproduction costs deducted contrary to section 61503b(1) and may also recover reasonable attorney fees incurred in bringing the action unless the lessee endeavored to cure the alleged violation pursuant to subsection (5) prior to the bringing of the action. In addition, a lessee who prevails in litigation under this subsection may recover reasonable attorney fees incurred in defending an action under this subsection, if the court finds that the position taken by the lessor in the litigation was frivolous.

(5) A person shall not bring an action under this section unless the person has first given the lessee written notice of the alleged violation of section 61503a or 61503b, with reasonably comprehensive details, and allowed a period of at least 30 days for the lessee to cure the alleged violation.

History: Add. 1999, Act 247, Eff. Mar. 28, 2000;—Am. 2000, Act 441, Imd. Eff. Jan. 9, 2001.

Popular name: Act 451

Popular name: NREPA

Popular name: Supervisor of Wells

324.61504 Waste prohibited.

Sec. 61504. A person shall not commit waste in the exploration for or in the development, production, handling, or use of oil or gas, or in the handling of any product of oil or gas.

History: Add. 1995, Act 57, Imd. Eff. May 24, 1995.

Popular name: Act 451

Popular name: NREPA

Popular name: Supervisor of Wells

324.61505 Supervisor of wells; jurisdiction; authority; enforcement of part.

Sec. 61505. The supervisor has jurisdiction and authority over the administration and enforcement of this part and all matters relating to the prevention of waste and to the conservation of oil and gas in this state. The supervisor also has jurisdiction and control of and over all persons and things necessary or proper to enforce effectively this part and all matters relating to the prevention of waste and the conservation of oil and gas.

History: Add. 1995, Act 57, Imd. Eff. May 24, 1995.

Popular name: Act 451

Popular name: NREPA

Popular name: Supervisor of Wells

324.61505a Drilling permit for well beneath lake bottomlands for exploration or production of oil or gas; condition.

Sec. 61505a. Notwithstanding any other provision of this part or the rules promulgated under this part, beginning on the effective date of this section, the supervisor shall not issue a permit for drilling, or authorize the drilling of, a well beneath the lake bottomlands of the Great Lakes, the connected bays or harbors of the Great Lakes, or the connecting waterways as defined in section 32301, for the exploration or production of oil or gas unless the applicant holds a lease that was in effect prior to the effective date of the amendatory act that added this section that allows the well to be drilled.

History: Add. 2002, Act 148, Imd. Eff. Apr. 5, 2002.

Compiler's note: Enrolled House Bill No. 5118 was not signed by the Governor, but, having been presented to him at 3:44 p.m. on March 22, 2002, and not having been returned by him to the House of Representatives within the 14 days prescribed by Const 1963, art IV, sec 33, became law (2002 PA 148) on April 5, 2002, the Legislature having continued in session.

Popular name: Act 451

Popular name: NREPA

Popular name: Supervisor of Wells

324.61506 Supervisor of wells; powers and duties generally.

Sec. 61506. The supervisor shall prevent the waste prohibited by this part. To that end, acting directly or through his or her authorized representatives, the supervisor is specifically empowered to do all of the following:

(a) To promulgate and enforce rules, issue orders and instructions necessary to enforce the rules, and do whatever may be necessary with respect to the subject matter stated in this part to implement this part, whether or not indicated, specified, or enumerated in this or any other section of this part.

(b) To collect data to make inspections, studies, and investigations; to examine properties, leases, papers, books, and records as necessary to the purposes of this part; to examine, check, and test and gauge oil and gas wells and tanks, plants, refineries, and all means and modes of transportation and equipment; to hold hearings; and to provide for the keeping of records and making of reports, and for the checking of the accuracy of the records and reports.

(c) To require the locating, drilling, deepening, redrilling or reopening, casing, sealing, operating, and plugging of wells drilled for oil and gas or for secondary recovery projects, or wells for the disposal of salt water, brine, or other oil field wastes, to be done in such manner and by such means as to prevent the escape of oil or gas out of 1 stratum into another, or of water or brines into oil or gas strata; to prevent pollution of, damage to, or destruction of fresh water supplies, including inland lakes and streams and the Great Lakes and connecting waters, and valuable brines by oil, gas, or other waters, to prevent the escape of oil, gas, or water into workable coal or other mineral deposits; to require the disposal of salt water and brines and oily wastes produced incidental to oil and gas operations in a manner and by methods and means so that unnecessary damage or danger to or destruction of surface or underground resources, to neighboring properties or rights, or to life does not result.

(d) To require reports and maps showing locations of all wells subject to this part, and the keeping and filing of logs, well samples, and drilling, testing, and operating records or reports. All well data and samples furnished to the supervisor as required in this part, upon written request of the owner of the well, shall be held confidential for 90 days after the completion of drilling and shall not be open to public inspection except by written consent of the owner.

(e) To prevent the drowning by water of any stratum or part of the stratum capable of producing oil or gas, or both oil and gas, and to prevent the premature and irregular encroachment of water, or any other kind of water encroachment, that reduces or tends to reduce the total ultimate recovery of oil or gas, or both oil or gas, from any pool.

(f) To prevent fires or explosions.

(g) To prevent blow-outs, seepage, and caving in the sense that the conditions indicated by such terms are generally understood in the oil business.

(h) To regulate the mechanical, physical, and chemical treatment of wells.

(i) To regulate the secondary recovery methods of oil and gas, including pulling or creating a vacuum and the introduction of gas, air, water, and other substances into the producing formations.

(j) To fix the spacing of wells and to regulate the production from the wells.

(k) To require the operation of wells with efficient gas-oil ratios and to establish the ratios.

(l) To require by written notice or citation immediate suspension of any operation or practice and the prompt correction of any condition found to exist that causes or results or threatens to cause or result in waste.

(m) To require, either generally or in or from particular areas, certificates of clearance or tenders in connection with the transportation of oil, gas, or any product of oil or gas.

(n) To require identification of the ownership of oil and gas producing leases, properties, and wells.

(o) To promulgate rules or issue orders for the classifications of wells as oil wells or gas wells; or wells drilled, or to be drilled, for secondary recovery projects, or for the disposal of salt water, brine, or other oil or gas field wastes; or for the development of reservoirs for the storage of liquid or gaseous hydrocarbons, or for other means of development, extraction, or production of hydrocarbons.

(p) To require the filing of an adequate surety, security, or cash bonds of owners, producers, operators, or their authorized representatives in such reasonable form, condition, term, and amount as will ensure compliance with this part and with the rules promulgated or orders issued under this part and to provide for the release of the surety, security, or cash bonds.

(q) To require the immediate suspension of drilling or other well operations if there exists a threat to public health or safety.

(r) To require a person applying for a permit to drill and operate any well regulated by this part to file a

complete and accurate written application on a form prescribed by the supervisor.

(s) To require the posting of safety signs and the installation of fences, gates, or other safety measures if there exists a threat to public health, safety, or property.

(t) To prevent regular or recurring nuisance noise or regular or recurring nuisance odor in the exploration for or development, production or handling of oil and gas.

History: Add. 1995, Act 57, Imd. Eff. May 24, 1995;—Am. 1998, Act 303, Imd. Eff. July 28, 1998.

Popular name: Act 451

Popular name: NREPA

Popular name: Supervisor of Wells

Administrative rules: R 324.101 et seq. of the Michigan Administrative Code.

324.61506a Notice of violation.

Sec. 61506a. Upon completion of an inspection under this part, the supervisor shall notify the owner or operator of the well of any violation of this or any other part of this act that is identified during the inspection.

History: Add. 1998, Act 252, Imd. Eff. July 10, 1998.

Popular name: Act 451

Popular name: NREPA

Popular name: Supervisor of Wells

324.61506b Conditions prohibiting issuance of permit or authorization to drill oil or gas well; waiver; exception.

Sec. 61506b. (1) Except as provided in subsections (2) and (3), beginning on the effective date of this section, the supervisor shall not issue a permit for or authorize the drilling of an oil or gas well if both of the following apply:

(a) The well is located within 450 feet of a residential building.

(b) The residential building is located in a city or township with a population of 70,000 or more.

(2) The supervisor may grant a waiver from the requirement of subsection (1)(a) if the clerk of the city, village, or township in which the proposed well is located has been notified of the application for a permit for the proposed well and if either of the following conditions is met:

(a) The owner or owners of all residential buildings located within 450 feet of the proposed well give written consent.

(b) The supervisor determines, pursuant to a public hearing held before the waiver is granted, that the proposed well location will not cause waste and there is no reasonable alternative for the location of the well that will allow the oil and gas rights holder to develop the oil and gas.

(3) Subsection (1) does not apply to a well utilized for the injection, withdrawal, and observation of the storage of natural gas pursuant to this part.

History: Add. 1998, Act 303, Imd. Eff. July 28, 1998.

Popular name: Act 451

Popular name: NREPA

Popular name: Supervisor of Wells

324.61506c Toll-free telephone number; maintenance; use.

Sec. 61506c. The department shall maintain a toll-free telephone number that a person or a representative of a local unit of government may call in order to receive information on department standards, safety requirements and educational information related to oil and gas exploration, drilling, permitting, hydrogen sulfide management, pooling, and other topics related to the extraction of oil and gas.

History: Add. 1998, Act 392, Imd. Eff. Dec. 17, 1998.

Popular name: Act 451

Popular name: NREPA

Popular name: Supervisor of Wells

324.61507 Prevention of waste; procedure; hearing; rules; orders.

Sec. 61507. Upon the initiative of the supervisor or upon verified complaint of any person interested in the subject matter alleging that waste is taking place or is reasonably imminent, the supervisor shall call a hearing to determine whether or not waste is taking place or is reasonably imminent, and what action should be taken to prevent that waste. If the supervisor determines it appropriate, the supervisor shall hold a hearing and shall promptly make findings and recommendations. The supervisor shall consider those findings and

recommendations and shall promulgate rules or issue orders as he or she considers necessary to prevent waste which he or she finds to exist or to be reasonably imminent.

History: Add. 1995, Act 57, Imd. Eff. May 24, 1995.

Popular name: Act 451

Popular name: NREPA

Popular name: Supervisor of Wells

324.61508 Rules of order or procedure in hearings or other proceedings; entering in book; copy of rule or order as evidence; availability of writings to public.

Sec. 61508. (1) The supervisor shall prescribe rules of order or procedure in hearings or other proceedings before the supervisor under this part. Rules promulgated or orders issued by the supervisor shall be entered in full in a book to be kept for that purpose by the supervisor. A copy of a rule or order, certified by the supervisor, shall be received in evidence in the courts of this state with the same effect as the original.

(2) A writing prepared, owned, used, in the possession of, or retained by the supervisor in the performance of an official function shall be made available to the public in compliance with the freedom of information act, Act No. 442 of the Public Acts of 1976, being sections 15.231 to 15.246 of the Michigan Compiled Laws.

History: Add. 1995, Act 57, Imd. Eff. May 24, 1995.

Popular name: Act 451

Popular name: NREPA

Popular name: Supervisor of Wells

324.61509 Hearings; subpoena; witnesses and production of books; incriminating testimony.

Sec. 61509. The supervisor may compel by subpoena the attendance of witnesses and the production of books, papers, records, or articles necessary in any proceeding before the supervisor or the commission. A person shall not be excused from obeying a subpoena issued in a hearing or proceeding brought under this part on the ground or for the reason that the testimony or evidence, documentary or otherwise, may tend to incriminate or subject that person to a penalty or forfeiture. However, this section does not require a person to produce books, papers, or records or to testify in response to any inquiry that is not pertinent to a question lawfully before the supervisor, commission, or court for determination under this part. Incriminating evidence, documentary or otherwise, shall not be used against a witness who testifies as required in this section in a prosecution or action for forfeiture. A person who testifies as required in this section is not exempt from prosecution and punishment for perjury in so testifying.

History: Add. 1995, Act 57, Imd. Eff. May 24, 1995.

Popular name: Act 451

Popular name: NREPA

Popular name: Supervisor of Wells

324.61510 Failure to comply with subpoena; refusal to testify; attachment; contempt; fees and mileage of witnesses.

Sec. 61510. (1) If a person fails or refuses to comply with a subpoena issued by the supervisor, or if a witness refuses to testify as to any matters regarding which he or she may be lawfully interrogated, any circuit court in this state, or any circuit court judge, on application of the supervisor, may issue an attachment for the person and compel that person to comply with the subpoena and to attend a hearing before the supervisor and produce documents, and testify upon matters, as may be lawfully required, and the court or judge has the power to punish that person for contempt in the same manner as if the person had disobeyed the subpoena of the court or refused to testify in that court.

(2) A witness summoned by subpoena or by written request of the supervisor and attending a hearing called by the supervisor is entitled to the same fees and mileage as are or may be provided by law for attending the circuit court in a civil matter or proceeding. The fees and mileage of witnesses subpoenaed at the instance of the supervisor shall be paid out of the general funds of the state treasury upon proper voucher approved by the supervisor. The fees and mileage of witnesses subpoenaed at the instance of any other interested party shall be paid by that party.

History: Add. 1995, Act 57, Imd. Eff. May 24, 1995.

Popular name: Act 451

Popular name: NREPA

Popular name: Supervisor of Wells

324.61511 False swearing as perjury; penalty.

Sec. 61511. If a person who is required to give an oath under this part, or by any rule promulgated or order issued by the supervisor, willfully swears falsely in regard to any matter or thing respecting which the oath is required, or willfully makes any false affidavit required or authorized by this part, or by any rule promulgated or order issued by the supervisor, that person is guilty of perjury, punishable by imprisonment for not more than 5 years or less than 6 months.

History: Add. 1995, Act 57, Imd. Eff. May 24, 1995.

Popular name: Act 451

Popular name: NREPA

Popular name: Supervisor of Wells

324.61512 Allocation or distribution of allowable production in well, field, or pool; basis.

Sec. 61512. If, to prevent waste, the supervisor limits the amount of oil or gas to be produced from any well, pool, or field in this state, the supervisor shall allocate or distribute the allowable production in the field or pool. The supervisor shall make such a determination or distribution in the field or pool on a reasonable basis, giving, if reasonable, under all circumstances, to each small well of settled production in the pool or field an allowable production that will prevent a general or premature abandonment of the wells in the pool or field.

History: Add. 1995, Act 57, Imd. Eff. May 24, 1995.

Popular name: Act 451

Popular name: NREPA

Popular name: Supervisor of Wells

324.61513 Proration or distribution of allowable production among wells; basis; drilling unit; unnecessary wells; pooling of properties; location of well; exceptions; minimum allowable production; allowable production pursuant to rules or orders.

Sec. 61513. (1) When, to prevent waste, the total allowable production for any oil or gas field or pool in the state is fixed in an amount less than that which the field or pool could produce if no restriction were imposed, the supervisor shall prorate or distribute on a reasonable basis the allowable production among the producing wells in the field or pool, to prevent or minimize reasonably avoidable drainage from each developed area which is not equalized by counter drainage. The rules or orders of the supervisor, so far as it is practicable to do so, shall afford the owner of each property in a pool the opportunity to produce his or her just and equitable share of the oil or gas in the pool, being an amount, so far as can be practicably determined and obtained without waste, and without reducing the bottom hole pressure materially below the average for the pool, substantially in the proportion that the quantity of the recoverable oil or gas under the property bears to the total recoverable oil or gas in the pool, and for this purpose to use his or her just and equitable share of the reservoir energy. A well in a pool producing from an average depth of 1,000 feet or less, on the basis of a full drilling unit as may be established under this section, shall be given a base allowable production of at least 100 barrels of oil per well per week; for a well in a pool producing from an average depth greater than 1,000 feet, the base allowable production shall be increased 10 barrels per well per week for each addition 100 feet of depth greater than 1,000 feet, if the allowable production is or can be made without surface or underground waste.

(2) To prevent the drilling of unnecessary wells, the supervisor may establish a drilling unit for each pool. A drilling unit, as described in this subsection, is the maximum area that may be efficiently and economically drained by 1 well. A drilling unit constitutes a developed area if a well is located on the drilling unit that is capable of producing the economically recoverable oil or gas under the unit. Each well permitted to be drilled upon any drilling unit shall be located in the approximate center of the drilling unit, or at such other location on the drilling unit as may be necessary to conform to a uniform well spacing pattern as adopted and promulgated by the supervisor after due notice and public hearing, as provided in this part.

(3) The drilling of unnecessary wells is hereby declared waste because unnecessary wells create fire and other hazards conducive to waste, and unnecessarily increase the production cost of oil and gas to the operator, and therefore also unnecessarily increase the cost of the products to the ultimate consumer.

(4) The pooling of properties or parts of properties is permitted, and, if not agreed upon, the supervisor may require pooling of properties or parts of properties in any case when and to the extent that the smallness or shape of a separately owned tract or tracts would, under the enforcement of a uniform spacing plan or proration or drilling unit, otherwise deprive or tend to deprive the owner of such a tract of the opportunity to recover or receive his or her just and equitable share of the oil or gas and gas energy in the pool. The owner of

any tract that is smaller than the drilling unit established for the field shall not be deprived of the right to drill on and produce from that tract, if the drilling and production can be done without waste. In this case, the allowable production from that tract, as compared with the allowable production if that tract were a full unit, shall be in the ratio of the area of the tract to the area of a full unit, except as a smaller ratio may be required to maintain average bottom hole pressures in the pool, to reduce the production of salt water, or to reduce an excessive gas-oil ratio. All orders requiring pooling described in this subsection shall be upon terms and conditions that are just and reasonable, and will afford to the owner of each tract in the pooling plan the opportunity to recover or receive his or her just and equitable share of the oil or gas and gas energy in the pool as provided in this subsection, and without unnecessary expense, and will prevent or minimize reasonably avoidable drainage from each developed tract that is not equalized by counter drainage. The portion of the production allocated to the owner of each tract included in a drilling unit formed by voluntary agreement or by a pooling order shall be considered as if it had been produced from the tract by a well drilled on the tract.

(5) Each well permitted to be drilled upon a drilling unit or tract shall be drilled at a location that conforms to the uniform well spacing pattern, except as may be reasonably necessary where after notice and hearing the supervisor finds any of the following:

(a) That the unit is partly outside the pool or that, for some other reason, a well at the location would be unproductive.

(b) That the owner or owners of a tract or tracts covering that part of the drilling unit or tract on which the well would be located if it conformed to the uniform well spacing pattern refuses to permit drilling at the regular location.

(c) That topographical or other conditions are such as to make drilling at the regular location unduly burdensome or imminently threatening to water or other natural resources, to property, or to life.

(6) If an exception under subsection (5) is granted, the supervisor shall take such action as will offset any advantage that the person securing the exception may have over other producers in the pool by reason of the drilling of the well as an exception, and so that drainage from the developed areas to the tract with respect to the exception granted will be prevented or minimized and the producer of the well drilled as an exception will be allowed to produce no more than his or her just and equitable share of the oil or gas in the pool as the share is set forth in this part, and to that end the rules and orders of the supervisor shall be such as will prevent or minimize reasonably avoidable drainage from each developed area that is not equalized by counter drainage and will give to each producer the opportunity to use his or her just and equitable share of the reservoir energy.

(7) Minimum allowable production for some wells and pools may be advisable from time to time, especially with respect to wells and pools already drilled on May 3, 1939, when former Act No. 61 of the Public Acts of 1939 took effect, so that the production will repay reasonable lifting costs and thus prevent premature abandonment of wells and resulting wastes.

(8) After the effective date of any rule promulgated or order issued by the supervisor as provided in this part establishing the allowable production, a person shall not produce more than the allowable production applicable to that person, his or her wells, leases, or properties, and the allowable production shall be produced pursuant to the applicable rules or orders.

History: Add. 1995, Act 57, Imd. Eff. May 24, 1995.

Popular name: Act 451

Popular name: NREPA

Popular name: Supervisor of Wells

324.61513a Pooling of properties not required.

Sec. 61513a. The supervisor shall not require the pooling of state owned properties or parts of properties under section 61513 if the state provides for the orderly development of state owned hydrocarbon resources through an oil and gas leasing program and the supervisor determines the owner of each tract is afforded the opportunity to recover and receive his or her just and equitable share of the hydrocarbon resources in the pool.

History: Add. 1998, Act 303, Imd. Eff. July 28, 1998.

Popular name: Act 451

Popular name: NREPA

Popular name: Supervisor of Wells

324.61514 Certificates of clearance or tenders; issuance.

Sec. 61514. The supervisor may issue certificates of clearance or tenders if required to implement this part.

History: Add. 1995, Act 57, Imd. Eff. May 24, 1995.

Popular name: Act 451

Popular name: NREPA

Popular name: Supervisor of Wells

324.61515 Handling or disposition of illegal oil or gas; penalty.

Sec. 61515. A person shall not sell, purchase, acquire, transport, refine, process, or otherwise handle or dispose of any illegal oil or gas or any illegal product of oil or gas. A penalty or forfeiture shall not be imposed as a result of an act described in this section until certificates of clearance or tenders are required by the supervisor as provided in section 61514.

History: Add. 1995, Act 57, Imd. Eff. May 24, 1995.

Popular name: Act 451

Popular name: NREPA

Popular name: Supervisor of Wells

324.61516 Rule or order; public hearings required; emergency rules or orders without public hearing; requirements for public hearings held pertaining to pooling of properties.

Sec. 61516. (1) A rule or order shall not be made, promulgated, put into effect, revoked, changed, renewed, or extended, except emergency orders, unless public hearings are held. Except as provided in subsection (2), public hearings shall be held at such time, place, and manner and upon such notice, not less than 10 days, as shall be prescribed by general order and rules adopted in conformity with this part. The supervisor may promulgate emergency rules or issue orders without a public hearing as may be necessary to implement this part. The emergency rules and orders shall remain in force and effect for no longer than 21 days, except as otherwise provided for rules under the administrative procedures act of 1969, 1969 PA 306, MCL 24.201 to 24.328.

(2) A public hearing held pursuant to this section pertaining to the pooling of properties or parts of properties under section 61513(4) shall be held at a place as determined by this subsection. At the time that the supervisor provides for notice of the public hearing, the supervisor shall provide notice of the right to request a change in location of the public hearing. A public hearing shall be held in the county in which the oil and gas rights are located if the majority of the owners of oil or gas rights that are subject to being pooled file with the supervisor a written request to hold the hearing in that county.

History: Add. 1995, Act 57, Imd. Eff. May 24, 1995;—Am. 1998, Act 115, Imd. Eff. June 9, 1998.

Popular name: Act 451

Popular name: NREPA

Popular name: Supervisor of Wells

324.61517 Actions against department or commission; jurisdiction of Ingham county circuit court; injunction or restraining order; actions pertaining to pooling of properties.

Sec. 61517. (1) Except as provided in subsection (2), the circuit court of Ingham county has exclusive jurisdiction over all suits brought against the department, the supervisor, or any agent or employee of the department or supervisor, by or on account of any matter or thing arising under this part. A temporary restraining order or injunction shall not be granted in any suit described in this section except after due notice and for good cause shown.

(2) A suit brought against the supervisor pertaining to an order of the supervisor requiring the pooling of properties or parts of properties under section 61513(4) may be brought in the circuit court for the county in which the oil or gas rights are located or in the circuit court of Ingham county. A suit brought in the circuit court of Ingham county against the supervisor pertaining to an order of the supervisor requiring the pooling of properties or parts of properties under section 61513(4) may be removed to the circuit court for the county in which the oil or gas rights are located upon petition by a majority of the owners of the oil and gas rights who are subject to the order. Additionally, if all of the owners of the oil and gas interests being pooled reside in a county in Michigan other than the county in which the oil and gas rights are located, the suit may be brought in, or removed to, the circuit court for the county in which the owners reside. A petition for removal under this subsection shall be filed within 28 days after filing and service of the complaint in circuit court.

History: Add. 1995, Act 57, Imd. Eff. May 24, 1995;—Am. 1998, Act 115, Imd. Eff. June 9, 1998.

Popular name: Act 451

Popular name: NREPA

Popular name: Supervisor of Wells

324.61518 Enforcement of part and rules; representation by attorney general; complaint; proceedings; powers of supervisor; exception.

Sec. 61518. (1) The supervisor may proceed at law or for the enforcement of this part and a rule promulgated under this part or for the prevention of the violation of this part or a rule promulgated under this part, and the attorney general shall represent the supervisor in an action brought under this part. The supervisor or an assistant appointed by the supervisor may file a complaint and cause proceedings to be commenced against a person for a violation of this part without the sanction of the prosecuting attorney of the county in which the proceeding is commenced. The supervisor or an assistant of the supervisor may appear for the people in a court of competent jurisdiction in a case for a violation of this part or a rule promulgated under this part, and prosecute the violation in the same manner and with the same authority as the prosecuting attorney of a county in which the proceeding is commenced, and may sign vouchers for the payment of fees and do all other things required in the same manner and with the same authority as the prosecuting attorney.

(2) Subsection (1) does not apply to a violation of this part that is subject to the penalty prescribed pursuant to section 61522(3) or (4).

History: Add. 1995, Act 57, Imd. Eff. May 24, 1995.

Popular name: Act 451

Popular name: NREPA

Popular name: Supervisor of Wells

324.61519 Failure of owner or operator to obtain permit or to construct, operate, maintain, case, plug, or repair well; notice of determination; liability; claims.

Sec. 61519. If the supervisor determines that the owner or operator of a well subject to this part has failed or neglected to properly obtain a permit, construct, operate, maintain, case, plug, or repair the well in accordance with this part or the rules promulgated under this part, the supervisor shall give notice of this determination, in writing, to the owner and operator and to the surety executing the bond filed with the supervisor by the owner or operator in connection with the issuance of the permit authorizing the drilling of a well. This notice of determination may be served upon the owner or operator and surety in person or by registered mail. If the owner or operator cannot be found in the state, the mailing of the notice of determination to the owner or operator at his or her last known post office address by registered mail constitutes service of the notice of determination. If the owner or operator, or surety, fails or neglects to properly case, plug, or repair the well described in the notice of determination within 30 days of the date of service or mailing of the notice, the supervisor may enter into and upon any private or public property on which the well is located and upon and across any private or public property necessary to reach the well, and case, plug, or repair the well, and the owner or operator and surety are jointly and severally liable for all expenses incurred by the supervisor. The supervisor, acting for and in behalf of the state, shall certify in writing to the owner or operator and surety the claim of the state in the same manner provided in this section for the service of the notice of determination, and shall list thereon the items of expense incurred in casing, plugging, or repairing the well. The claim shall be paid by the owner or operator, or surety, within 30 days, and if not paid within that time the supervisor, acting for and in behalf of the state, may bring suit against the owner or operator, or surety, jointly or severally, for the collection of the claim in any court of competent jurisdiction in the county of Ingham.

History: Add. 1995, Act 57, Imd. Eff. May 24, 1995.

Popular name: Act 451

Popular name: NREPA

Popular name: Supervisor of Wells

324.61520 Abandoning well without properly plugging; violation of part or rule; penalty; liability of owner; “owner” and “operator” defined.

Sec. 61520. (1) A person who abandons a well without properly plugging the well as provided in this part or the rules promulgated under this part, or, except as provided in section 61522(3) or (4), who violates this part or a rule promulgated under this part, whether as principal, agent, servant, or employee, is guilty of a misdemeanor, punishable by imprisonment for not more than 90 days, or a fine of not more than \$1,000.00 and costs of prosecution, or both. This section does not impose liability upon the owner of land upon which a well is located, unless the property owner is the owner or part owner of the well.

(2) The words “owner” and “operator”, as used in this section and section 61519 mean a person who, by the terms of this part and the rules promulgated under this part, is responsible for the plugging of a well.

History: Add. 1995, Act 57, Imd. Eff. May 24, 1995.

Popular name: Act 451

Popular name: NREPA

Popular name: Supervisor of Wells

324.61521 Unlawful acts; penalties.

Sec. 61521. (1) A person who, for the purpose of evading this part or of evading a rule promulgated or an order issued under this part, intentionally makes or causes to be made false entry or statement of fact in a report required by this part or by a rule promulgated or an order issued under this part, or who, for that purpose, makes or causes to be made false entry in an account, record, or memorandum kept by a person in connection with this part, or of a rule promulgated or an order issued under this part; or who, for that purpose, omits to make, or causes to be omitted, full, true, and correct entries in the accounts, records, or memoranda, of all facts and transactions pertaining to the interest or activities in the petroleum industry of that person as may be required by the supervisor under authority given in this part or by any rule promulgated or any order issued under this part; is guilty of a felony, punishable by imprisonment for not more than 3 years, or a fine of not more than \$3,000.00, or both.

(2) A person who for the purpose of evading this part or a rule promulgated or an order issued under this part removes from the jurisdiction of the state, or mutilates, alters, or by other means falsifies a book, record, or other paper pertaining to transactions regulated by this part is subject to the penalties prescribed in the freedom of information act, Act No. 442 of the Public Acts of 1976, being sections 15.231 to 15.246 of the Michigan Compiled Laws.

History: Add. 1995, Act 57, Imd. Eff. May 24, 1995.

Popular name: Act 451

Popular name: NREPA

Popular name: Supervisor of Wells

324.61522 Violations of part, rule, or order; penalties.

Sec. 61522. (1) Unless a penalty is otherwise provided for in this part, a person who violates this part or a rule or order promulgated or issued under this part is subject to a penalty of not more than \$1,000.00. Each day the violation continues constitutes a separate offense. The penalty shall be recovered by an action brought by the supervisor.

(2) A person aiding in the violation of this part or a rule or order promulgated or issued under this part is subject to the same penalties as are prescribed in this section for the person who committed the violation.

(3) If the supervisor arbitrarily and capriciously violates section 61508(2), the supervisor is subject to the penalties prescribed in the freedom of information act, Act No. 442 of the Public Acts of 1976, being sections 15.231 to 15.246 of the Michigan Compiled Laws.

History: Add. 1995, Act 57, Imd. Eff. May 24, 1995.

Popular name: Act 451

Popular name: NREPA

Popular name: Supervisor of Wells

324.61523 Confiscation of illegal oil or gas, oil or gas products, conveyances, and containers; notice; seizure; sale; intervention.

Sec. 61523. All illegal oil or gas, products derived from illegal oil or gas, conveyances used in the transportation of illegal oil or gas or oil or gas products, and containers used in their storage, except railroad tank cars and pipelines, are subject to confiscation, and the supervisor may seize such illegal oil or gas, oil or gas products, conveyances, and containers. The supervisor shall immediately upon such seizure institute a proceeding in rem to confiscate the oil or gas, oil or gas products, conveyances, and containers in the circuit court of the county in which the seizure was made or in the circuit court of Ingham county. Upon commencement of these proceedings, notice shall be given to all known interested persons in the manner as directed by the court. The court, upon finding that the oil or gas, oil or gas products, conveyances, or containers seized are illegal, shall order those items to be sold under the terms and conditions as it directs. Any person claiming an interest in any oil or gas, oil or gas product, conveyance, or container that is seized has the right to intervene in the proceedings, and the rights of that person shall be determined by the court as justice may require.

History: Add. 1995, Act 57, Imd. Eff. May 24, 1995.

Popular name: Act 451

Popular name: NREPA

Popular name: Supervisor of Wells

324.61524 Fee for monitoring, surveillance, enforcement, and administration of part.

Sec. 61524. (1) For the purposes of monitoring, surveillance, enforcement, and administration of this part, a fee not in excess of 1%, based upon the gross cash market value, is levied upon oil and gas produced in this state. The fee shall be collected by the revenue division of the department of treasury in the same manner, at the same time, and subject to the provisions of the tax levied by 1929 PA 48, MCL 205.301 to 205.317.

(2) The fee shall be computed as follows:

(a) The director of the department of management and budget, on or before November 1, shall certify to the department of treasury the amount appropriated for the fiscal year for the purposes of monitoring, surveillance, enforcement, and administration of this part.

(b) The department shall estimate the total production and gross cash market value of all oil and gas that will be produced in this state during the fiscal year ending September 30, and shall certify its estimate to the department of treasury on or before November 1.

(c) Within 30 days after the effective date of the 1998 amendments to this section and on or before December 1 of each succeeding year, the department of treasury shall determine the fee as follows:

(i) If the fund balance is less than \$7,000,000.00 as of the end of the fiscal year immediately prior to November 1, the fee shall be 1% of the gross cash market value of oil and gas produced, or an amount calculated to cause the fund to accumulate to \$7,000,000.00 at the end of the current fiscal year, whichever is less.

(ii) If the fund balance is equal to or exceeds \$7,000,000.00 as of the end of the fiscal year immediately prior to November 1, the fee shall be the ratio, to the nearest 1/100 of 1%, that the appropriation bears to the total gross cash market value of the oil and gas that will be produced in this state as estimated by the department as provided in subdivision (b).

(iii) Any money accumulated in the fund in excess of \$7,000,000.00 as of the end of the fiscal year shall be deducted from the following year's appropriation in determining an amount to be certified by the director of the department of management and budget to the department of treasury for computing the annual fee provided for in this section.

(d) The percentage determined pursuant to subdivision (c) shall not exceed 1% and shall be the fee beginning the first of the following month and will continue to be the fee for the next 12 months and until a different fee is determined. However, the fee shall be 1% beginning the first day of the second month after the effective date of the 1998 amendments to this section and will continue to be the fee for the remainder of that calendar year.

(3) The proceeds of the fee provided for in this section shall be forwarded to the state treasurer for deposit into the fund.

History: Add. 1995, Act 57, Imd. Eff. May 24, 1995;—Am. 1998, Act 252, Imd. Eff. July 10, 1998.

Popular name: Act 451

Popular name: NREPA

Popular name: Supervisor of Wells

324.61525 Permit to drill well; application; bond; posting; fee; issuance; disposition of fees; availability of information pertaining to applications; information provided to city, village, or township.

Sec. 61525. (1) A person shall not drill or begin the drilling of any well for oil or gas, for secondary recovery, or a well for the disposal of salt water, or brine produced in association with oil or gas operations or other oil field wastes, or wells for the development of reservoirs for the storage of liquid or gaseous hydrocarbons, except as authorized by a permit to drill and operate the well issued by the supervisor of wells pursuant to part 13 and unless the person files with the supervisor a bond as provided in section 61506. The permittee shall post the permit in a conspicuous place at the location of the well as provided in the rules and requirements or orders issued or promulgated by the supervisor. An application for a permit shall be accompanied by a fee of \$300.00. A permit to drill and operate shall not be issued to an owner or his or her authorized representative who does not comply with the rules and requirements or orders issued or promulgated by the supervisor. A permit shall not be issued to an owner or his or her authorized representative who has not complied with or is in violation of this part or any of the rules, requirements, or orders issued or promulgated by the supervisor or the department.

(2) The supervisor shall forward all fees received under this section to the state treasurer for deposit in the fund.

(3) The supervisor shall make available to any person, upon request, not less often than weekly, the

following information pertaining to applications for permits to drill and operate:

- (a) Name and address of the applicant.
- (b) Location of proposed well.
- (c) Well name and number.
- (d) Proposed depth of the well.
- (e) Proposed formation.
- (f) Surface owner.
- (g) Whether hydrogen sulfide gas is expected.

(4) The supervisor shall provide the information under subsection (3) to the county in which an oil or gas well is proposed to be located and to the city, village, or township in which the oil or gas well is proposed to be located if that city, village, or township has a population of 70,000 or more. A city, village, township, or county in which an oil or gas well is proposed to be located may provide written comments and recommendations to the supervisor pertaining to applications for permits to drill and operate. The supervisor shall consider all such comments and recommendations in reviewing the application.

History: Add. 1995, Act 57, Imd. Eff. May 24, 1995;—Am. 1998, Act 252, Imd. Eff. July 10, 1998;—Am. 1998, Act 303, Imd. Eff. July 28, 1998;—Am. 2004, Act 325, Imd. Eff. Sept. 10, 2004.

Popular name: Act 451

Popular name: NREPA

Popular name: Supervisor of Wells

324.61525a Annual well regulatory fee; report.

Sec. 61525a. The owner or operator of a well used for injection, withdrawal, or observation related to the storage of natural gas or liquefied petroleum gas that has been used for its permitted purpose at any time during the calendar year immediately prior to the time the fee is due is subject to a \$20.00 annual well regulatory fee. The owner or operator of a well described in this section shall file an annual report by January 31 of each year stating the number of wells used for injection, withdrawal, or observation related to the storage of natural gas or liquefied petroleum gas that has been utilized for its permitted purpose during the previous calendar year. The report shall include a list of wells identified by permit number, permit name, and gas storage field name on a form provided by the supervisor, or such other form which may be acceptable to the supervisor. The annual well regulatory fee described in this section is due not more than 30 days after the supervisor sends notice to the owner or operator of the amount due. The supervisor shall forward all fees collected under this section to the state treasurer for deposit into the fund.

History: Add. 1998, Act 252, Imd. Eff. July 10, 1998.

Popular name: Act 451

Popular name: NREPA

Popular name: Supervisor of Wells

324.61525b Oil and gas regulatory fund; creation; disposition of money or other assets; lapse; expenditures; annual report.

Sec. 61525b. (1) The oil and gas regulatory fund is created within the state treasury.

(2) The state treasurer may receive money or other assets from any source for deposit into the fund. The state treasurer shall direct the investment of the fund. The state treasurer shall credit to the fund interest and earnings from fund investments.

(3) Money in the fund at the close of the fiscal year shall remain in the fund and shall not lapse to the general fund.

(4) The department shall expend money from the fund, upon appropriation, only for monitoring, surveillance, enforcement, and administration of this part.

(5) The department shall annually submit a report to the legislature that itemizes the expenditure of money in the fund. The report shall include, at a minimum, all of the following:

- (a) The amount of money received and the amount of money expended.
- (b) The number of full-time equivalent positions funded with money in the fund.
- (c) The number of on-site inspections conducted by the department in implementing this part.
- (d) The number of violations identified in enforcing this part, their locations, and a description of the nature of the violations.

History: Add. 1998, Act 252, Imd. Eff. July 10, 1998.

Popular name: Act 451

Popular name: NREPA

Popular name: Supervisor of Wells

324.61526 Part cumulative; conflicting provisions repealed; exception.

Sec. 61526. This part is cumulative of all existing laws on the subject matter, but, in case of conflict, this part shall control and shall repeal the conflicting provisions, except for the authority given the public service commission in sections 7 and 8 of Act No. 9 of the Public Acts of 1929, being sections 483.107 and 483.108 of the Michigan Compiled Laws, as authorized by law.

History: Add. 1995, Act 57, Imd. Eff. May 24, 1995.

Popular name: Act 451

Popular name: NREPA

Popular name: Supervisor of Wells

324.61527 Applicability of part.

Sec. 61527. This part does not apply to drill holes for the exploration for and the extraction of iron, copper, or brine; to water wells; to mine and quarry drill and blast holes; to coal test holes; or to seismograph or other geophysical exploration test holes.

History: Add. 1995, Act 57, Imd. Eff. May 24, 1995.

Popular name: Act 451

Popular name: NREPA

Popular name: Supervisor of Wells

The following questions were asked by Councilman Henderson via email. For clarity, questions are underlined and responses are in **bold**.

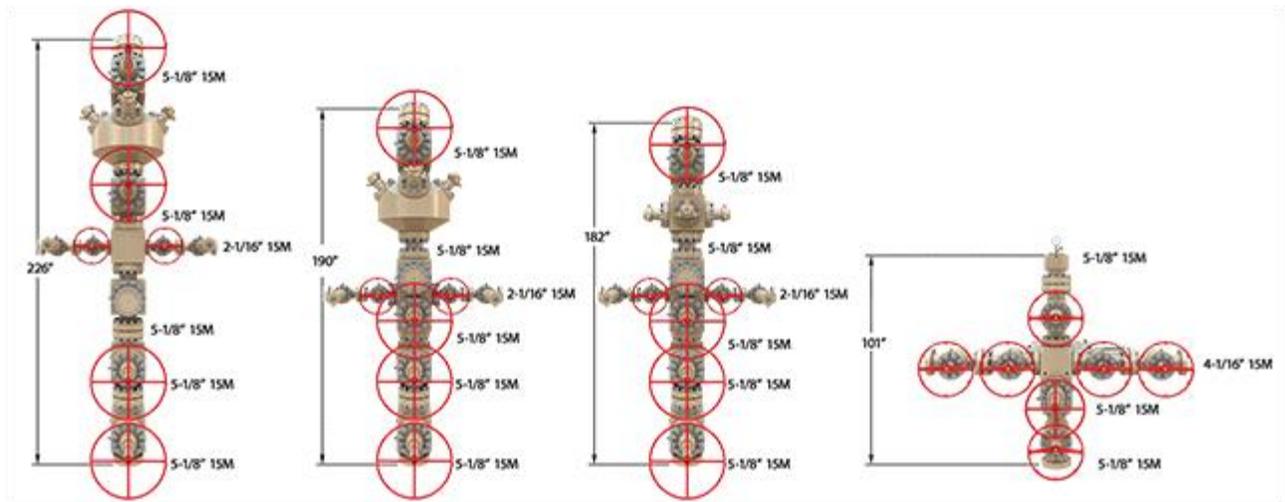
Maybe a little info on fracking would be nice for others on council to read. Looks like the state has plenty of regulations on this, leaving Troy with the simple task of defining where a fracture location can be placed. All other safety concerns seem to be well documented and protective measures in place.

https://www.michigan.gov/documents/deq/deq-FINAL-frack-QA_384089_7_452648_7.pdf

Fracking information from State of Michigan website is attached.

First, the well head structure is not to exceed 22'. What is typical for well head structures? Are we in line with industry standard heights?

Cameron produces a wide range of products for the oil and gas industry, including wellhead systems. A frac tree is a wellhead system containing a number of valves and outlets. The following illustration for various frac tree products Cameron sells was copied from Cameron's website (c-a-m.com). The tallest model Cameron sells is 226" (18.83') in height. Cameron also offers a horizontal frac tree that has a significantly shorter profile. This indicates that we are in line with industry standards.



Source: c-a-m.com

Second, I asked for maps of locations that would be conducive to oil drilling, but can we see a before and after map. I'd like to see what those potential sites look like before an ordinance and then after the ordinance. In other words, would someone be allowed to drill on a 3 acre non IB site now? If so, I think the before and after map would be more stark.

Presently, an oil and gas facility could be located anywhere in the City that met State of Michigan locational criteria, which would generally include any location at least 450 feet from a residential building (Natural Resources and Environmental Protection Act, Act 451 of 1994). Maps were provided in the City Council memo.

Third, Injection wells are prohibited? I think I need further information on why these are to be prohibited. It appears that these may be an essential part of the process as it relates to eliminating brine from the site?

Injection of brine and other elements is a critical component of fracking. These elements are trucked to the site and then injected into the well. The injection wells prohibited by these provisions are those used to dispose of the brine used in oil and gas extraction, which may be contaminated. These wells are located deep underground, so as not to negatively impact drinking water.

Separation of brine from fluid. It appears our new ordinance doesn't allow for this, but reading the state of Michigan site about fracking process, it looks like that is SOP for fracking. Again, is this a restriction that would be extraordinary for a fracking company to overcome?

Facilities for separating oil, gas and brine are similar in character to oil refineries and therefore considered heavy industrial uses. Requiring brine separation at appropriate locations away from the wellhead is not overly restrictive to the industry.