

ORDINANCE NO. 2017-12

AN ORDINANCE REGULATING WELL INSTALLATION, MAINTENANCE, AND OPERATION IN MARSHALL COUNTY, INDIANA

WHEREAS, Indiana Code Section 16-20 permits any County in the State of Indiana to exercise any power or perform any function necessary to the public interest in the context of its municipal or internal affairs, which is not prohibited by the Constitution of the United States of America or the State of Indiana, or denied or pre-empted by any other law, or is not expressly granted by any other law to another governmental entity;

WHEREAS, the Board of Commissioners of the County of Marshall, Indiana is the County executive and legislative body and is by law authorized to adopt ordinances and resolutions of the performance of functions within the County of Marshall, Indiana;

WHEREAS, pursuant to the authority vested by Indiana Code Section 16-20, the Board of Commissioners of the County of Marshall, Indiana does hereby approve and establish an ordinance regulating well installation, maintenance, and operation in the County of Marshall, Indiana, in accordance with the terms and provisions hereinafter stated.

NOW THEREFORE, BE IT ORDAINED, ORDERED, AND ESTABLISHED by the Board of County Commissioners of Marshall County, Indiana, that:

Section 1. Marshall County hereafter adopts this Ordinance.

Section 2. This ordinance shall take effect October 1, 2017.

Section 3. Definitions

- a. Aquifer: means a water-bearing formation or stratum.
- b. Casing: means steel or wrought iron pipe, type K copper, or other material approved by the health officer, to exclude unwanted solids or liquids from the interior of the well.
- c. Cement grout: means a thorough mixture consisting of one bag of Portland cement (ninety-four (94) pounds) with five or six gallons of clean water. When such mixture cannot be placed effectively, additives may be used provided shrinkage is held to a

minimum and the mixture will form a water-tight seal throughout the entire depth required to prevent objectionable waters from entering the hole.

- d. County Board of Health: The Marshall County Board of Health.
- e. Effluent or Wastewater: Any human excrement or water-carried waste derived from ordinary living processes.
- f. Flushing: means the act of causing a rapid flow of water from a well by pumping, bailing or similar operation.
- g. Groundwater: Any water below the surface of the ground within the interstices of the rock and soil. This includes water in both the unsaturated near-surface soils and the underlying saturated soils and rock.
- h. Health Department: The Health Department of Marshall County Indiana.
- i. Health Officer: The Marshall County Health Officer or a duly authorized representative.
- j. Nonresidential well: means any well drilled for more than two residential units or for use other than residential use or for wells drilled for a combination of use involving residential and nonresidential use.
- k. Ordinance: An Ordinance Regulating Well Installation, Maintenance and Operation in Marshall County, Indiana.
- l. Person: Any individual, trust, joint stock company, federal agency, corporation (including a government corporation), limited liability company, partnership, co-partnership, company, estate, municipal corporation, city, school city, town, school town, school district, school corporation, county, state agency, association, state, commission, political subdivision of a state, any interstate entity or any other legal entity or their legal representative.
- m. Pollution: means such contamination or other alteration of the physical, chemical or biological properties of water as to render such water harmful detrimental or injurious to public health or safety.
- n. Potable Water System: The well and distribution system of a residential or commercial water system used or intended for use for drinking or culinary purposes.
- o. Potable water: means water suitable for drinking or culinary purposes in its natural state or through conditioning.

- p. Primary Point of Use: The most commonly used source(s) of drinking water. For residences, the primary point of use is the kitchen faucet.
- q. Property: A single continuous property within Marshall County, Indiana.
- r. Pump installer: means any individual, partnership, firm or corporation that installs a pump in a well or opens the well to service a pump.
- s. Residential well: means any well drilled for the use of one or two dwelling units.
- t. Water table: means the top surface, or upper limit, of the groundwater zone.
- u. Well driller: means any individual, partnership, firm or corporation that produces, or contracts to construct a well.
- v. Well drilling: means any operation which produces a well.
- w. Well owner: means the legal owner of the real estate containing a well site.
- x. Well seal: means an approved removable arrangement or device used to cap a well or to establish and maintain a water-tight junction between the casing or curbing of a well and the piping or equipment installed therein, so as to prevent unwanted water, or other contaminating material, from entering the well at the upper terminal.
- y. Well vent: means an opening or outlet at the upper end of the well casing to allow equalization of air pressure in the well.
- z. Well: is any excavation, whether drilled, bored, driven, jetted or dug for the purpose of obtaining water from the ground or returning water to the ground or for the purpose of testing the quantity or quality of such water or for lowering (either temporarily or permanently) the groundwater level or water table.

Section 4: Well Installation

1) Permit Requirements

- a) Before commencement of construction of a well, a well owner shall obtain a written permit signed by the health officer, and the permit shall be posted in a conspicuous place on the premises prior to the commencement of work thereunder.
- b) No person shall perform any work on such project until such permit is obtained and posted on the premises.

- c) The application for such permit shall be made on a form provided by the health department of the county, which applicant shall supplement by any plans, specifications and other information as deemed necessary by the health officer.
- d) A permit fee in accordance with the most updated Fee Ordinance shall be paid to the health department at the time the application is filed. The health department shall apply a portion of the permit fee for the use and purpose of laboratory expenses in processing the application.
- e) Such permit shall be void if the installation is not completed in two years.
- f) In emergency situations, the well driller may drill the well prior to obtaining his permit, but the water from such well shall not be used for human consumption until the application for the permit has been filed, permit secured, and well inspected and approved. In such emergency situations, the applicant for the well permit shall notify the health officer by telephone of the pending well installation prior to such installation. The well permit shall be obtained within twenty-four (24) hours of the regular scheduled work day after the start of the emergency installation.
- g) The installer shall not commence work on the private well until the owner has provided a copy of the permit to the installer.

2) Inspections

- a) The health officer shall be allowed to inspect the well installation at any stage of construction and in any event, the applicant for the permit shall notify the health officer when the work is completed or of his intention to abandon the well all in compliance with this chapter. The inspection shall be made within forty-eight (48) hours of the receipt of notice by the health officer. Days not considered regular working days (Saturday and Sunday and all Holidays) shall not be considered part of the forty-eight (48) hours' notice.

3) Separation distances

- a) The separation distances as followed:

Sources of Contamination	Distance
A well must be cased to a depth of at least twenty-five (25) feet below the natural ground surface. *	
Independent clear water drain; septic system perimeter drain; rainwater downspout;	10 feet

Sources of Contamination	Distance
cistern; hydrant drain; or building foundation drain	
Property lines **	50 feet
Stream; lake or pond shoreline; below-ground swimming pool; open ditch or other waterway; sanitary or storm sewer constructed of water works grade ductile iron, cast iron or PVC pipe with mechanical or push-on joints	25 feet
Watertight grease basin; septic tank; wastewater holding tank; absorption field; all pipes and tanks associated with an on-site sewage system that holds or conveys sewage; constructed wetland; sewage lift station; or sanitary vault privy (a privy that utilizes a solid wall wastewater holding tank)	50 feet
Stable; animal barn or feeding pen; milk house; livestock run; or silo	50 feet
Sanitary or storm sewer not constructed of water works grade ductile iron, cast iron or PVC pipe with mechanical or push-on joints	50 feet
Pit privy (a privy that has brick-, block-, or stone-lined pit walls); manure pile; manure holding tank; silage pit; dry well; seepage pit or trench; or cesspool	100 feet
Surface or subsurface stored chemicals such as gasoline, diesel fuel, home heating oil, fertilizer, pesticides, etc.	100 feet
Septage or treated sludge disposal area; wastewater absorption; storage, retention or treatment pond; ridge and furrow waste disposal site; or spray irrigation waste disposal site	500 feet
Uncovered salt storage	1,500 feet

* If the well casing terminates less than 25 feet from below natural grade, or if the well penetrates creviced or highly porous formations, at a minimum, the distances listed in above table should be doubled.

**For properties subdivided prior to the passing of this ordinance, the separation distance to property lines shall be 15 feet.

4) Process

- a) The installer shall inform the health department at least forty-eight (48) hours prior to the installation of any new well.
- b) No water can be used for human consumption after the installation of a well until the health department has sampled same and determined it to be fit for human consumption.
- c) All well construction must be in accordance with the Indiana Department of Natural Resources Rule 312 IAC 13 *et seq.*

- d) The installer shall, thirty (30) days after the completion of the installation of the new water well, provide to the health department and the owner of the property a copy of the well record submitted to the Indiana Department of Natural Resources.

5) Contamination

- a) The use of a well for disposal of sewage or other material which may pollute the potable underground water is prohibited.
- b) If a well is used for the purpose of returning uncontaminated water to the ground, consideration shall extend to thermal as well as bacterial factors and the plans for the well that is to be so used must be submitted to and be approved by the health officer, the Indiana State Board of Health and the Division of Water of the Department of Natural Resources of the state of Indiana.

6) Installer Requirements

- a) All well drillers & installers shall be in compliance with 312 IAC 13.
- b) All installers shall be registered and bonded with Marshall County.

7) Well Pumps

- a) The health officer shall be allowed to inspect the pump installation at any stage of construction, and, in any event, the applicant for the permit shall notify the health officer when the work will be ready for final inspection at least four scheduled work hours before any underground portions are covered. Such scheduled work hours shall be the work hours of the health department.
- b) Hand Pumps. All hand pumps, stands or similar devices shall be installed so that no unprotected opening connecting with the interior of the pump exists. The pump spout shall be of the closed downward-directed type. All hand pumps shall be bolted to a mounting flange securely fastened to the well casing. The top of the casing shall extend at least one inch above the face of the flange.
- c) Power Driven Pumps. All power-driven pumps located over wells shall be mounted on the well casing, a pump foundation, or a pump stand, so as to provide an effective well seal at the top of the well. Extension of the casing at least one inch into the pump base will be considered an effective seal provided the pump is mounted on a base plate or foundation, in such manner to exclude dust and insects, and the top of the well casing is

at an elevation at least two feet above any known floodwater level. Where the pump unit is not located over the well and the pump delivery or suction pipe emerges from the top thereof, a watertight expanding gasket or equivalent well seal shall be provided between the well casing and piping. A similar water-tight seal shall be provided at the terminal of a conduit containing a cable for a submersible pump. All submersible pumps should have one check valve located on the discharge line above the pump and inside the casing. If the discharge pipe is at least twelve (12) inches above the ground and slopes to drain into the well, the check valve may be located in the house.

- d) Pump Bearing Lubrication. Bearings of power pumps shall be lubricated with water or oil of a bacterial quality equal to that of the water being pumped.
 - i) Water Lubricated Pumps. If a pump delivering a potable water is provided with a water lubrication tank, the tank shall be so designed and installed as to prevent contamination of the water therein.
 - ii) Oil Lubricated Pumps. The oil reservoir shall be constructed to protect the oil from contamination. The lubrication system should be designed and installed to minimize leakage of oil into the water. The oil shall be free from substances imparting into the water. The oil shall be free from substances imparting an undesirable taste to the water.
- e) Pump houses. Unless the power-driven pump installation is of weatherproof and frost proof construction, a structure housing the pump shall be constructed permitting access to the pump for maintenance and repair work. The pump house floor shall be constructed of impervious material and shall slope away in all directions from the well or suction pipe.
- f) Protection Against Freezing. Pumps, water pipelines and all other wet parts of water systems shall be protected against freezing.
- g) Sampling Faucets. In all pressure water systems provision shall be made for collection of water samples by installation of a faucet on the discharge side of and as close as possible to the pump. The sampling faucet shall have a smooth turned down nozzle. A hose bib shall not be used.
- h) Suction or Non-pressure Lines. All buried suction pipe, or non-pressure lines shall be enclosed in a pipe conduit having a minimum wall thickness equivalent to a casing of same size, and shall be located from sources of pollution in accordance with the distances

specified in the minimum standards applicable hereunder. Suction pipes with annular space between pipe and encasement under pressure may be installed within the specified distances but in no case within ten feet. Sewers of cast iron pipe with leaded joints, clear water drains, and cisterns, shall not be located within ten feet of a suction line. No suction line shall be beneath a sewer. An exposed suction pipe, as in a basement room, shall be eighteen (18) inches, or greater practicable distance above the floor. Any pipe connecting a pump and well shall be protected against freezing. All new well constructions shall be equipped with pit less adapters.

- i) **Materials Prohibited.** No material will be used in the well or pump installation that will result in the delivered water being toxic or having an objectionable taste or odor. All metallic and nonmetallic materials shall have sufficient structural strength and other properties to accomplish the purpose for which installed. Flexible or non-rigid plastic pipe shall not be used for suspending submersible pumps, unless having the physical properties to withstand the torque and load to which it is subjected. Plastic pipe shall not be used unless bearing the approval of the National Sanitation Foundation and unless having the physical properties to withstand the torque and load to which it is subjected.
- j) **Offset pumps, pressure tanks, electrical controls and components and sampling faucets** shall be located where they are readily accessible. They shall not be located in a crawl space unless the crawl space is drained to the ground surface beyond the crawl space either by gravity or by means of a sump pump, and a minimum of four feet of clear working space is provided between the floor of the crawl space and the floor joist in the pump area. If located in a crawl space, the pump shall be located within five feet of the point of entry. The access opening should be at least two feet high and two feet wide. Any part or accessory to the water system, which requires routine maintenance shall not be installed in a crawl space unless that crawl space meets the requirements of the provisions of this chapter.
- k) **Pressure tanks or approved substitutes, used as part of the water system shall be of such size as to prevent excessive wear of the pump due to frequency of starting or stopping.**

Section 5: Well Testing

1) Requirements

- a) Well water testing shall be required for any well installation and maintenance/repair.
- b) Duplicate copies of laboratory test results shall be provided to the owner and the health department. The laboratory shall include the State of Indiana and Environmental Protection Agency standards so that it is clear to the layperson whether the water meets standards.

2) The health department shall submit, to a certified laboratory, a sample of the water from the new or repaired residential well for a laboratory analysis of the following constituents:

- i) Total Coliforms (TC),
- ii) E. coli (Only to be tested if well comes back positive for TC)
- iii) Nitrates
- iv) Arsenic (newly driven wells only)

The permitting fee for a new well shall include the cost of this initial testing. Further testing that may be required will be the responsibility of the well owner.

3) Fees

- a) Fees for well testing shall be included in the permitting fees. Permitting fees will be in accordance with the most recent Marshall County Health Department Fee Ordinance Schedule.

4) State & Federal Limits

- a) All wells shall be required to be in compliance with all State of Indiana and Environmental Protection Agency wells & drinking water standards.

5) Disinfection

- a) To prevent contamination of the well or aquifer, it is desirable to maintain a chlorine residual of two hundred (200) parts per million or similar anti-bacterial chemicals in the well hole all during the drilling process. Under these conditions the well need not be disinfected until the pump is set. Every new, modified or reconditioned water source, including pumping equipment and gravel used in gravel wall wells, shall be disinfected before being placed in service for general use. Such treatment shall be performed both when the well work is finished and when pump is installed or reinstalled. If there is no significant lapse of time between the two operations, only the latter disinfection will be required. The casing pipe shall be thoroughly swabbed to remove oil, grease and joint

dope, using alkaline if necessary to obtain clean metal surfaces. The well or other groundwater development equipment, including the pumping equipment and gravel used a gravel well construction shall be disinfected with a solution containing enough chlorine to leave a residual or twenty-five (25) parts per million in the well after a period of at least twenty-four (24) hours.

- 6) The water from a new well shall not be used for human consumption until such time as the well has been approved by the Health Officer and the water analysis is acceptable to the Health Officer.

Section 6: Well Maintenance/Repair

1) Requirements

- a) After well repair wherein the water quality has been compromised or after the well seal of an existing well has been broken, or a private well is drilled to replace the existing well, the well shall be disinfected by the installer pursuant to the procedures set forth in 312 IAC 16-9-1. The upper terminal of a well located in a well pit that is not properly drained to the ground surface in the immediate area or is subject to flooding shall be deemed buried for the purposes of this section. If the well seal is broken, a pit less adapter shall be installed pursuant to 312 IAC 16-4-3(d).
- b) The installer shall notify the health department, whenever possible, twenty-four (24) hours prior to the maintenance of any well.
- c) The owner shall be responsible for obtaining a permit for maintenance of the well.
- d) Fees for well maintenance shall be in accordance with the most updated Fee Ordinance.
- e) Fees for well maintenance shall be submitted along with the application supplied by the installer.
- f) There shall be no human consumption of any water serviced from a private well until such time as the health department has determined that the water is safe for human consumption.
- g) The owner shall submit an application for maintenance of a private well on the form provided by the health department.
- h) The installer shall not commence work on the private well until the owner has provided a copy of the permit to the installer.

- i) The health department shall be permitted to inspect a private water well maintenance at any time.
- j) The health department shall submit a sample of water after maintenance of the water well for analysis at a laboratory to determine if the bacterial content is satisfactory. The permitting fee for well maintenance shall include the cost of this initial testing. Further testing that may be required will be the responsibility of the owner.
- k) Installers who maintain or perform maintenance on private water wells shall be registered with the Marshall County Health Department and be a licensed plumber or well driller.

Section 7: Well Abandonment

1) Requirements

- a) A well, to be temporarily abandoned, but which the owner intends to equip and use at some future time shall be temporarily sealed at the surface by a welded or threaded cap or in the case of a dug well in a manner satisfactory to the health officer.
- b) Permanent Abandonment. A well that is to be abandoned permanently shall be filled with cement grout opposite each water-bearing formation and in the top forty (40) feet of the hole. The remainder of the hole may be filled with puddled clay or other impermeable material that will permanently prevent migration of fluids in the hole. Sand, gravel, slag and crushed limestone are not desirable materials to use in filling a hole because they are permeable, but they may be used opposite a formation or stratum that is impermeable to water to bridge between zones of cement grout. If salt water is entering or may enter the well, the entire hole should be filled with cement grout.
- c) Dewatering wells, temporary service wells, construction water wells, process wells and/or other structures for withdrawing groundwater or lowering of water levels or water tables regardless of location, length of intended service, or original use or intent, shall be constructed to the identical standards and minimums as water supply wells contemplated by this chapter.
- d) The abandonment of dewatering wells, construction wells and temporary wells shall be accomplished via the identical procedure prescribed herein for permanent abandonment.

Section 8: Notifications

1) Installation

- a) The well driller shall supply the health officer, within thirty (30) days after drilling the well, with an accurate record of the construction details of the well including a log of the soil formations and deeper material in which the hole is drilled, results of pumping tests and such other information that may be requested. The driller shall furnish the owner a duplicate copy of this information as well as provide copies of the well record to the Division of Water of the Indiana Department of Natural Resources as required by state statute.
- 2) Abandonment
 - a) The owner shall supply the health officer, within thirty (30) days after the well is properly abandoned, a copy of the well abandonment log submitted to the Indiana Department of Natural Resources.
- 3) Variances
 - a) When a property owner or well driller cannot meet a provision of this ordinance, they may apply for a variance on a form provided by the Marshall County Health Department. The variance request must include the description of what portion of the ordinance cannot be met, a rationale of why it cannot be met and a proposed alternative to the portion of the ordinance that cannot be met.
 - b) The owner shall supply the health officer, within thirty (30) days after the variance is issued, with all relevant variance details.

Section 9: Penalties & Enforcement

- 1) The health officer or designee, bearing proper credentials and identification, shall be permitted to enter upon all properties at proper times for the purpose of inspection, observation, measurement, sampling and testing necessary to carry out the provisions of this chapter.
- 2) Whenever the health officer determines that there are reasonable grounds to believe that there has been a violation of any provision of this chapter, he shall give notice to such alleged violation to the person or persons responsible therefor, and to any known agent of such person, as hereinafter provided. Such notice shall:
 - a) Be in writing;
 - b) Include a statement of reasons why it is being issued;

- c) Allow a reasonable time for the performance of any act it requires;
 - d) Be served upon the owner or his agent, or the occupant, as the case may require; provided, that such notice shall be deemed to be properly served upon such owner or agent, or upon such occupant, if a copy thereof is served upon him personally, or if a copy thereof is sent by certified mail to his last known address, or if a copy thereof is posted in a conspicuous place in or about the dwelling affected by the notice, or if he is served with such notice by any other method authorized or required under the laws of this state;
 - e) Such notice must contain an outline or remedial action, which if taken, will effect compliance with the provisions of this chapter.
- 3) Any person affected by any such notice issued by the health officer may request and shall be granted a hearing on the matter before the health officer; provided, that such person shall file in the office of the latter within ten days after service of the notice, a written petition requesting such hearing and setting forth a brief statement of the grounds therefor. Upon receipt of such petition the health officer, or his designated representative, shall arrange a time and place for such hearing and shall give the petitioner written notice thereof. Such hearing shall be held as soon as practicable after the receipt of request therefor. At such hearing the petitioner shall be given an opportunity to be heard and to show just cause why such notice should not be complied with.
- 4) After such hearing, the health officer shall sustain, modify or withdraw the notice, depending upon his findings as to whether the provisions of this chapter have been complied with. If the health officer shall sustain or modify such notice, it shall be deemed to be an order. Any notice served pursuant to Section 9, 2 (d) of this section shall automatically become an order if a written petition for a hearing is not filed in the office of the health officer within the ten days after such notice is served. After a hearing in the case of any notice suspending any permit required by this chapter, when such notice has been sustained by the health officer the permit shall be deemed to have been revoked. Any such permit which has been suspended by a notice shall be deemed to be automatically revoked if a petition for hearing is not filed in the office of the health officer within ten days after such notice is served.
- 5) Whenever the health officer finds that an emergency exists which requires immediate action to protect the public health may, without notice or hearing, issue an order reciting the

existence of such an emergency and requiring that such action be taken as he deems necessary to meet the emergency. Notwithstanding the other provisions of this chapter, such order shall be effective immediately, but upon petition to the health officer shall be afforded a hearing as soon as possible, in the manner provided in Section 9, 3 of this section. After such hearing, depending upon the finding as to whether the provisions of this chapter have been complied with, the health officer shall continue such order in effect, or modify it, or revoke it.

- 6) Any person found to be violating any provision of this ordinance shall be served by the health officer with a written order stating the nature of the violation and providing a time limit for satisfactory correction thereof.
- 7) Any person who shall continue any violation of this ordinance beyond the time limit provided shall be liable of a separate offense punishable by fine. On a finding of liability, the violator shall be punished for the first offense by a penalty of not more than five hundred dollars (\$500.00); for the second offense by a penalty of not more than one thousand dollars (\$1,000.00); and for the third and each subsequent offense by a penalty to be determined by the Marshall County Health Board but not to exceed five thousand dollars (\$5,000.00) per offense.
- 8) Any person violating any of the provisions of this chapter could be held liable to the county for any expense, loss or damage occasioned by reason of such violation.
- 9) In addition to the penalties defined in this section, the health officer may also institute a suit for mandatory injunction in the circuit court of Marshall County to restrain any individual, corporation or governmental unit from violating the provisions of this chapter.

DATED THIS ____ DAY OF _____, 2017

Kevin Overmyer, Commissioner and President

Kurt Garner, Commissioner

Michael Delp, Commissioner

ATTEST:

Julie Fox, Marshall County Auditor

INDEX

Section 1, Adoption of Ordinance.....	2
Section 2, Ordinance Effective Date.....	2
Section 3, Definitions.....	2
Section 4, Well Installation.....	4
Permit Requirements.....	4
Inspections.....	5
Separations Distances.....	5
Process.....	6
Contamination.....	7
Installer Requirements.....	7
Well Pumps.....	7
Section 5, Well Testing.....	10
Requirements.....	10
Constituents.....	10
Fees.....	10
State & Federal Limits.....	10
Disinfection.....	10
Human Consumption.....	11
Section 6, Well Maintenance.....	11
Section 7, Well Abandonment.....	12
Section 8, Notifications.....	13
Installation.....	13
Abandonment.....	13
Variances.....	13
Section 9, Penalties & Enforcement.....	13