

TOWNSHIP OF WASHINGTON**FRANKLIN COUNTY, PENNSYLVANIA****ORDINANCE NO. 150****AN ORDINANCE PROVIDING FOR THE SUPERVISION
AND REGULATION OF ALL WELLS WHICH MAY BE
CONSTRUCTED FOR OBTAINING WATER FOR
DOMESTIC PURPOSES IN WASHINGTON TOWNSHIP,
FRANKLIN COUNTY, PENNSYLVANIA**

NOW, THEREFORE, BE IT ENACTED AND ORDAINED by the Supervisors of Washington Township, Franklin County, Pennsylvania, and **IT IS HEREBY ENACTED AND ORDAINED** as follows:

SECTION 1. PURPOSE

The purpose of this Ordinance is to ensure and protect the quality and suitability of individual water supply systems by a permit procedure, to require a permit for the construction of individual and semi-public water supply systems and wells, production wells, test wells and monitoring wells; and to establish minimum construction standards for these systems including their location, installation, reconstruction, replacement, modification, reactivation, or abandonment.

SECTION 2. SCOPE

The scope of this Ordinance applies to all individual and semi-public water supply systems. Those defined by the Pennsylvania department of Environmental Protection as public water systems (at least 15 service connections or regularly serve no fewer than 25 individuals daily at least 60 days out of the year), are exempt from this Ordinance.

SECTION 3. RIGHT AND PRIVILEGES GRANTED

The Governing Body is hereby authorized and empowered to undertake within the Township the regulation of the construction of all water wells for domestic purposes.

SECTION 4. RULES AND REGULATIONS

The Governing Body is hereby authorized and empowered to adopt such rules and regulations concerning well drilling which it may deem necessary from time to time to effect the purposes herein.

**SECTION 5. RULES AND REGULATIONS TO BE IN CONFORMITY WITH
APPLICABLE LAW**

All such rules and regulations adopted by the Governing Body shall be in conformity with the provisions herein; all other ordinances of the Township, and all applicable laws, and applicable rules and regulations of administrative agencies of the Commonwealth of Pennsylvania.

SECTION 6. RATES AND CHARGES

The Governing Body shall have the right and power to fix, charge, and collect rates, assessments and other charges in the municipality at reasonable and uniform rates as authorized by

applicable law.

SECTION 7. EXCLUSIVENESS OF RIGHTS AND PRIVILEGES

- .1 This ordinance shall apply to all wells which have not been completed, or which are not in operation or in operable condition at the time of passage of this ordinance.
- .2 This ordinance shall also apply for all alterations to an existing well.
- .3 This ordinance shall not apply to normal maintenance and minor repairs to keep the well in proper working order.

SECTION 8. DEFINITIONS

The following words and terms when used in this Ordinance shall have the following meaning unless the context specifically and clearly indicates otherwise:

- .1 **Abandoned Supply:** A supply, the regular use of which has been discontinued for a period of one year or more, or which is in such a state of disrepair that continued use for the purpose of obtaining ground water is impracticable, or which has been replaced by a new well or public water supply.
- .2 **Alteration:** Any action which necessitates entering a well with drilling tools; treating a well to increase yield, altering the physical structure of depth of the well; blasting; removal or replacement of well casing.
- .3 **Annular Space:** The space between two (2) cylindrical objects, one of which surrounds the other, such as the space between a drill hole and a casing pipe and a liner pipe.
- .4 **ANSI:** American National Standards Institute.
- .5 **API:** American Petroleum Institute.
- .6 **Aquifer:** A geological formation that contains and transmits water.
- .7 **ASTM:** American Society for Testing Materials.
- .8 **AWWA:** American Water Works Association.
- .9 **Back Siphonage:** The flowing back of used, contaminated or polluted water from a plumbing fixture or vessel or other sources into a potable water supply pipe due to negative pressure in such pipe.
- .10 **Casing:** An impervious durable pipe placed in a well to prevent the walls from caving and to seal off surface drainage or undesirable water, gas or other fluids and prevent their entering the well.

- .11 **Coliform:** All of the aerobic and facultative anaerobic, gram negative, non-spore forming, rod-shaped bacteria which are capable of fermenting lactose with gas formation within forty-eight (48) hours at thirty-five (35°C) degrees Celsius.
- .12 **Community Water System:** A water system which serves at least 15 service connections used by year round residents or regularly serves at least 25 year round residents.
- .13 **Construction of Wells:** All acts necessary to obtain groundwater, or artificially recharge groundwater. Provided, however, such term does not include an excavation made for the purpose of obtaining or prospecting for oil, natural gas, minerals, or products of mining or quarrying, or for inserting media to repressure oil or natural gas formations or for storing petroleum, natural gas, or other products and services. Construction of wells includes the location and excavation or drilling of the well, but excludes the installation of pumps and pumping equipment.
- .14 **Contractor:** Any individual, partnership, company, association, corporation, group or entity employed, hired, contracted or otherwise engaged by the Owner to perform defined services for compensation.
- .15 **Cross Connection:** An arrangement allowing either direct or indirect connection through which backflow, including back siphonage, can occur between the drinking water in a public water system and a system containing a potential source of contamination.
- .16 **DEP:** Pennsylvania Department of Environmental Protection.
- .17 **Flowing Well:** A well that yields water by artesian pressure at the ground surface.
- .18 **Governing Body:** Shall mean the Supervisors of Washington Township, Franklin County, Pennsylvania.
- .19 **Groundwater:** Water within the earth below the water table within the zone of satisfaction. Groundwater includes both water under water table conditions and confined within deep aquifers.
- .20 **Grout:** A permanent watertight joint or connection made by filling with concrete, neat cement, or other approved impervious material between the casing and the undisturbed formation surrounding the well or between two (2) strings of casing.
- .21 **Individual Water Supply:** A system including wells, pumps, and piping equipment, which supplies water to a private home.
- .22 **Installation of Pumps and Pumping Equipment:** The procedure employed in the placement and preparation for operation of pumps and pumping equipment, including

all construction involved in making entrance to the well and establishing seals but not including repairs to existing installations.

- .23 **Municipality:** Shall mean the Township of Washington, Franklin County, Pennsylvania.
- .24 **Non-Community Water Systems:** A public water system which is not a community water system.
- .25 **N.S.F.:** National Sanitation Foundation.
- .26 **Owner:** Any person vested with sole or partial, legal or equitable ownership of property located in the Township.
- .27 **Person:** Shall mean any individual, partnership, company, association, corporation or other group or entity.
- .28 **Pitless Adaptor:** A device or assembly of parts which will permit water to pass through the wall of the well casing or extension thereof, and which provides access to the well and to the parts of the water system within the well in a manner to prevent entrance of pollution into the well and the water produced.
- .29 **Public Water System:** A system which provides water to the public for human consumption which has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year. The term is either a community or non-community system and includes collection, treatment, storage and distribution facilities under the control of the operator of the system and used in connection with the system. The term also includes a system which provides water for bottling or bulk hauling for human consumption.
- .30 **Semi-Public Water Supply:** A water supply which services one or several facilities such as industrial or commercial establishments, parks, camps, hotels, motels, schools, institutions, eating and drinking establishments or a water supply which services two (2) or more dwelling units and is not a public water system as defined by the Pennsylvania Safe Drinking Water Act (35 P.S. 721.1 et. seq.).
- .31 **Township:** Washington Township, Franklin County, Pennsylvania governmental jurisdiction or governing body represented by the Board of Township Supervisors.
- .32 **Well:** Any excavation that is drilled, cored, bored, washed, driven, dug, jetted, or otherwise constructed when the intended use of such excavation is for the location, acquisition or artificial recharge of groundwater. This includes but is not limited to test wells, test borings, and monitoring wells, in addition to wells to be utilized as individual or semi-public water supplies.

- .33 **Well Driller:** An individual or company that is permitted or licensed by the State of Pennsylvania to drill wells in Pennsylvania.
- .34 **Well Seal:** An approved device or method used to protect a well casing or water system from the entrance of any external pollutant at the point of entrance into the casing of a pipe, electric conduit or water level measuring device.
- .35 **Well Tag.** A metal marking device supplied by the Township for installation on the well cap for every new or reconstructed water well, or geothermal well.

SECTION 9. DUTIES OF THE PROPERTY OWNER

The Owner of the property on which a well for domestic water use is to be utilized shall:

- .1 Apply to Washington Township Supervisors for a well permit, providing, on the prescribed form: name and address of applicant, name and address of land owner where well is to be drilled, name and address and license number of well driller, site location and address, and proposed date for drilling to begin. A site plan (sketch) showing location of existing or proposed buildings, driveways, septic systems, and other wells must be attached to the application.
- .2 Have all wells constructed by a qualified Pennsylvania licensed well driller to meet, at a minimum, the rules and regulations of this ordinance and any administrative agency of the Commonwealth of Pennsylvania.
- .3 Submit any relevant information or data concerning the constructed well to the Governing Body, including a signed well completion report and a copy of well water test results obtained from the well driller.

SECTION 10. LOCATION

The source of supply shall be from a water bearing formation drawn not less than thirty-five (35') feet from the ground surface. Capped wells shall be located at a point free from flooding, at a higher elevation (wherever possible) and at the following minimum setback distances to existing or potential sources of pollution.

<u>Source of Pollution</u>	<u>Minimum Setback Distance</u>
Lakes, ponds, streams or other surface waters	25 feet
Storm drains, retention basins, stabilization ponds or stormwater management facilities	25 feet
Preparation area or storage area of hazardous spray materials, fertilizers or chemicals, salt piles	100 feet
Gravity sewer lines and drains carrying domestic sewage or industrial waste	50 feet

Septic tanks, aerobic tanks or holding tanks	50 feet
Subsurface sewage disposal systems, elevated sand mounds, other sewage disposal fields	100 feet
Sewage seepage pits, cesspools	100 feet
Farm silos, barnyards, privies and fuel tanks	100 feet
Rainwater pits, ditches	25 feet
Spray irrigation sites, sewage sludge and septage disposal sites	100 feet
Property lines, driveways, and private roads	10 feet
Dedicated public right-of-way	20 feet
Building foundations (except for buildings enclosing water wells and/or water well pumps)	30 feet
Any other source of pollution	As approved

SECTION 11. WELL CONSTRUCTION RULES AND REGULATIONS

- .1 **Casing:** All wells supplying individual or semi-public water supplies shall be equipped with watertight and durable wrought iron, steel, plastic (PVC) or other type approved casing with a minimum wall thickness of 0.1875 for iron and 0.175 for PVC (Schedule 80).

The sections of casing shall be joined together by threaded couplings or joints, welding or other watertight approved method. The casing shall be carried to a minimum depth of forty (40') feet and then extended an additional ten (10') feet into firm bedrock or other impervious strata and grouted in place. Casing and grouting must be compatible. Pressure grouting is required for all wells by running tremie pipe to bottom along casing. Cement concrete or bentonite are encouraged for use in grouting. Casing shall extend at least eight (8") inches above ground surface. The borehole should be three (3") inches larger than the outside diameter of casing to allow for grout.

In areas known to be contaminated, the minimum depth for casing shall be forty (40') feet. The criteria established in AWWA Standards A100-84 must be followed.

- .2 **Well Depth:** The minimum drilled depth for any water well is eighty (80') feet from surface of the ground.

- .3 **Ferrous Casing:** Ferrous Casing shall be new pipe meeting ASTM or API Specifications for water well construction. It shall be equipped with a drive shoe or other effective casing seal and have full circumference welds or threaded pipe joints.
- .4 **Non-Ferrous Casing:** Non-Ferrous Casing shall meet appropriate ANSI, ASTM or NSF Standards for water well casing applications. It shall not be driven.
- .5 **Grouting:** An annular space shall be provided between the well casing and the earth formation. It shall be completely filled with approved grout materials in one continuous operation under pressure from the bottom of the casing to the natural ground surface within twenty-four (24) hours of completion of drilling. No activity in and around the well should occur within forty-eight (48) hours after grouting of the casing, or within two (2) hours if using bentonite.

In the event that grouting is done following completion of all drilling operations, all obstructions must be completely cleared prior to placement of grout material. The casing shall be sealed by grouting or minimum of fifteen (15') feet each above and below the polluted or undesirable water-bearing zone.

During the installation of a pitless adaptor, grout material may be removed from the exterior of the casing in order to provide a watertight seal between the casing and this adaptor. For such an adaptor, a ditch at least three (3') feet deep will be required along with conduits, stone, dust or sand. A sanitary well cap shall be incorporated for protection from leakage and identification of the well respectively.

- .6 **Packer:** Packers when used shall be of material that will not impact adverse taste, odor, toxic substances or bacterial contamination to the well water.
- .7 **Gravel Packs:** Gravel Packs when used shall be 95% siliceous material and placed in uniform continuous operation. Refill pipes shall be Schedule 40 Steel and in the annular opening surrounded by a minimum of one and one-half (1½") inches of grout. Protection from leakage shall be guaranteed.
- .8 **Pits:** Pit installations are discouraged where the casing terminates below the ground surface. If they must be used, the floor shall be a watertight reinforced concrete platform at least four (4') inches thick and extending from the casing at least two (2') feet in all directions. The casing shall extend from the floor of the pit for at least twelve (12") inches. The walls of the pit shall be at least four (4") inches thick of the same material or its equivalent. A durable watertight manhole, a minimum of two (2) feet in diameter, shall be installed in the top of the pit, which also shall be a reinforced concrete slab of at least four (4") inches in thickness. Pit installations shall not be used in flood-prone areas or fluctuating water tables which rise within one (1') foot of the bottom of the proposed pit. Where pipes enter the pit, the annular space between the pipes and the wall shall be effectively sealed in a watertight permanent manner.
- .9 **Pitless Installations:** Pitless installations are those where the casing terminates

above the ground surface. Where used, they shall be effectively sealed. All buried suction lines shall be encased. The access casing shall be protected against corrosion and shall extend at least eight (8") inches above the natural ground surface and to a point below the frost line. This area shall be designed for blockage of water, insects, and rodents.

Pitless adaptors cannot be installed with torch or flame, but must be installed using hole saw or drill.

- .10 **Well Screens:** Well screens shall provide maximum amount of open area while still maintaining structural strength. They shall have the size of openings based on a sieve analysis to preclude entry by sand, silt, and other undesirable elements.
- .11 **Well Cap:** Install a secure, screened, varmint free well cap on all wells to prevent any surface pollutants from entering the well or any vandalism to the well or aquifer. In the event of a flowing well, well cap must stop overflow from well.
- .12 **Well Tag:** An identification tag must be permanently attached to each new or reconstructed water well or each geothermal well. These tags will be issued by Washington Township at the time the application for the well permit is approved..
- .13 **Venting:** Where venting is required, an overlapping cover or pipe with an opening facing downward shall be required. In no case shall openings be less than twelve (12") inches from the ground or the floor in case of pit installations.
- .14 **Monitoring Wells:** Monitoring wells shall be designed such as to minimize potential contamination of the aquifer and to maximize the information obtained from each such well.
- .15 **Heat Pumps:** Heat pump (geothermal) installations shall be designed and constructed to provide an effective watertight seal with the well casing or water storage reservoir and to prevent contamination from reaching the water chamber or interior pump surfaces. In closed loop systems, holes must be grouted from bottom to top with cement or bentonite. Open loop systems must conform to same requirements as water well.
- .16 **Power Pump Installations:** The base installed directly over a well casing or pipe sleeve shall be designed to provide an effective watertight seal. It shall be located in a flood-free area. Where power pumps are placed in pits, they shall comply with Section 11.14 above, and shall be ventilated with a pipe of at least one and one-half (1½") inches in diameter. The pump and related equipment shall permit convenient access, removal, maintenance and repair. The suction opening shall be placed at least two (2') feet below the maximum drawdown of the water in the well. However, it shall be located at a sufficient distance from the bottom of the well so as to prevent agitation of accumulated sediment.

- .17 **Abandoned Water Supplies:** A permit is required for any existing well that is to be abandoned. Drilled wells shall be filled and sealed by cement, concrete grout or bentonite. Hand dug wells shall be filled with clean stone to within ten (10) feet of the top of the well, then concrete to within two (2') feet of ground level.

Dry wells being abandoned must be filled with clean stone and the top eighteen (18') feet filled with cement or bentonite; however, the top two (2') feet may be covered with topsoil.

- .18 **Disinfection:** Following completion of construction, the well shall be pumped continuously until the water discharge is clear. It shall be filled with water containing concentration of not less than 100 parts per million of free chlorine. A portion of this solution shall be recirculated directly to the well in order to insure proper agitation. The water shall not be used for a period of twenty-four (24) hours. Other combinations of water/chlorine concentration and time interval may be used if demonstrated equally effective. Disposal of the purged water shall be at a point so as to minimize adverse effects to aquatic life and in no way directed into any subsurface sewage disposal system. One (1 oz.) Ounce of dry calcium hypochlorite dissolved in 52.5 gallons of water makes the proper strength disinfectant solution.

- .19 **Cross-Connections:** If pump and piping is not installed by well driller, owner is responsible for proper installation of checkvalves and backflow protection. Backflow protectors must be incorporated into the system and be used as needed for each outside water hose connectors. At least two checkvalves must be incorporated into each water system that derives water from a well.

Except where not practical, a cross-connection prevention assembly should be provided. For semi-public water supplies, this device is required to be installed at any fixed potable water outlet to which a hose may be connected.

- .20 **Well Analysis:** After well disinfection, collect and analyze water samples for pH, Total Solids, Iron, Nitrate-Nitrogen, and coliform bacteria. The owner or his representative shall utilize the appropriate means and methods for sampling and stabilization, and obtain sample analysis from a certified lab. One copy of the analysis results shall be provided to the owner of the well and one copy provided to the Township.

- .21 **Completion Report:** Submit one copy of DCNR's water well completion report form 8700-FM-TG-5001S, as may be amended, to the Township. In addition, distribute the remaining copies of this form as directed including one copy to the owner. In the case of Geothermal wells, a report must be filed indicating the well was constructed in accordance with this ordinance.

SECTION 12. ACCESSIBILITY TO PUBLIC WATER

- .1 No individual or semi-public water supply for human consumption shall be constructed or altered where a public water system connection is within two hundred

and fifty (250') feet of the existing or proposed structure and public water service is available to that site.

- .2 Wells for agriculture or other purposes, excluding human consumption, shall be permitted regardless of public water availability.
- .3 Cross connections between an individual or semi-public water supply and the public water system shall be prohibited.

SECTION 13. FEES

An application fee, set by the Township Supervisors must be paid at the time the complete application for a well permit is presented to the Township office. In no case will the application be approved prior to payment of this fee.

SECTION 14. VIOLATIONS

- .1 Upon discovery of any violation of this ordinance, the Township of Washington may, at its option, forego any prosecution hereunder, and may grant to the owner a period of seven (7) calendar days to comply with the provisions of this ordinance. Upon failure of the owner to effect such compliance, the Township may initiate prosecution as hereinabove set forth.
- .2 Any person who violates or permit the violation of this ordinance, any amendments hereto, or any rules and regulations establishing pursuant to this ordinance, shall, upon being found liable therefore in an action brought before a district justice in the same manner provided for the enforcement of summary offenses under the Pennsylvania Rules of Criminal Procedure, pay the fine set by the Board of Supervisors plus all court costs, including reasonable attorney fees, incurred by the municipality in any enforcement proceeding. The municipal solicitor may assume charge of the prosecution without the consent of the District Attorney as required under PA R. Crim. P. No. 83(c) (relating to trial and summary cases). In addition, any such person who violates or permits the violation of this ordinance, its amendments, or rules and regulations promulgates pursuant hereto, shall be liable for damages or restitution in any additional amount determined in such enforcement proceeding. Violations of this ordinance shall be punishable by a fine of not less than \$100.00 or more than \$1,000.00. A separate offense shall arise for each day or portion thereof in which a violation is found to exist or for each section of the ordinance, its amendments, or the rules and regulations promulgated pursuant hereto, which is found to have been violated.

SECTION 15. ABATEMENT OF NUISANCE

In addition to any other remedies provided in this ordinance, any violation of Section 11 above shall constitute a nuisance and shall be abated by the municipality or the Governing Body by either seeking mitigation of the nuisance; by institution of a suit or suits in equity to restrain or prevent violations of the aforesaid sections; or by seeking a mandatory preliminary injunction under the applicable provisions of the Pennsylvania Sewage Facilities Act; or by seeking other legal relief from a court of competent jurisdiction.

SECTION 16. DISCLAIMER

Approval of this application and issuance of a permit for a well on the above described property does not constitute any guarantee or warranty by Washington Township regarding quantity or quality of water that may be obtained as a result of any well drilled under this permit. This permit provides Washington Township's approval to drill a well at the site shown on the application, and does not provide any other guarantees, approval, warranties, etc.

SECTION 17. SEVERABILITY

If any sentence, clause, section or part of this ordinance is for any reason found to be unconstitutional, illegal or invalid, such unconstitutionality, illegality or invalidity shall not affect or impair any of the remaining provisions, sentences, clauses, sections, or parts of this ordinance. It is hereby declared as the intent of the Board of Supervisors of the Township that this ordinance would have been adopted had such unconstitutional, illegal or invalid sentence, clause, section or part thereof not been included therein.

SECTION 18. REPEALER

All other ordinances or parts of ordinances inconsistent herewith be and the same are hereby repealed.

SECTION 19. This ordinance shall take effect five (5) days after enactment thereof.

DULY ENACTED AND ORDAINED this 23rd day of February , 2000, by the Board of Supervisors of the Township of Washington, Franklin County, Pennsylvania, in lawful session duly assembled.

**WASHINGTON TOWNSHIP
BOARD OF SUPERVISORS**

ATTEST:

By Karen S. Hargrave
Karen S. Hargrave, Secretary

By Paul G. Benchoff
Paul G. Benchoff, Chairman

I, Karen S. Hargrave, Secretary of the Board of Supervisors, Washington Township, Franklin County, Pennsylvania, do certify that the foregoing is a true and correct copy of an Ordinance adopted at a regular meeting of the Washington Township Supervisors held February 23, 2000, in regular session duly assembled.

Karen S. Hargrave
Karen S. Hargrave, Secretary

