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DEPARTMENT OF PUBLIC HEALTH

NOTICE OF PROPOSED AMENDMENTS

- 1) Heading of the Part: Water Well Construction Code
- 2) Code Citation: 77 Ill. Adm. Code 920
- 3) 

<u>Section Numbers:</u>	<u>Proposed Action:</u>
920.10	Amend
920.Table C	Amend
- 4) Statutory Authority: Illinois Water Well Construction Code [415 ILCS 30]
- 5) A Complete Description of the Subjects and Issues Involved: The addition of the definition of "Storm Sewer" clarifies the proposed setback changes made to Section 920.Table C.

The proposed changes to Section 920.Table C represent the closed loop well advisory board's recommendations to the Department. The changes reflect agreement between the Department and closed loop and water well drilling industries regarding the setback requirements between closed loop wells, water wells, and sources of contamination, specifically sewers. This rulemaking was recommended by the Joint Committee on Administrative Rules (JCAR). As part of a previous rulemaking adopted November 25, 2013, the Department agreed with JCAR to continue its discussions with the commentators on that rulemaking concerning how the current 50-foot setback could be modified to accommodate geothermal applications and still protect the groundwater, and to propose a rulemaking within six months addressing the setback issue.

The economic effect of this proposed rulemaking is unknown. Therefore, the Department requests any information that would assist in calculating this effect. The Department believes that these changes will allow the closed loop well drilling industry to do more business while protecting groundwater in Illinois.

The Department anticipates adoption of the rulemaking approximately six to nine months after publication of the notice in the *Illinois Register*.

- 6) Published studies or reports, and sources of underlying data used to compose this rulemaking: None
- 7) Will this proposed amendment replace an emergency rule currently in effect? No

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- 8) Does this rulemaking contain an automatic repeal date? No
- 9) Does this rulemaking contain any incorporations by reference? No
- 10) Are there any other proposed amendments pending on this Part? No
- 11) Statement of Statewide Policy Objectives: This rule making does not create or expand a State mandate.
- 12) Time, Place, and Manner in which interested persons may comment on this proposed rulemaking:

Interested persons may present their comments concerning these rules within 45 days after this issue of the *Illinois Register* to:

Susan Meister  
Division of Legal Services  
Illinois Department of Public Health  
535 West Jefferson, Fifth Floor  
Springfield, Illinois 62761

Telephone: (217) 782-2043  
e-mail: [dph.rules@illinois.gov](mailto:dph.rules@illinois.gov)

- 13) Initial Regulatory Flexibility Analysis:
- These rules may have an impact on small businesses. Any small business commenting on these rules shall indicate their status as such in their comments.
- A) Type of Small Businesses, Small Municipalities, and Not-For-Profit Corporations Affected: Closed loop well contractors.
- B) Reporting, Bookkeeping or Other Procedures Required for Compliance: None
- C) Types of Professional Skills Necessary for Compliance: Water well driller's license and closed-loop well contractor's certification and registration.
- 14) Regulatory Agenda on which this rulemaking was summarized: January 2014

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The full text of the Proposed Amendments begins on the next page:

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TITLE 77: PUBLIC HEALTH  
CHAPTER I: DEPARTMENT OF PUBLIC HEALTH  
SUBCHAPTER r: WATER AND SEWAGE

PART 920  
WATER WELL CONSTRUCTION CODE

Section	
920.10	Definitions
920.15	Incorporated and Referenced Materials
920.20	Scope
920.30	General Requirements
920.40	Design Factors
920.50	Location
920.60	Drilled Wells in Unconsolidated Formations
920.70	Drilled Well Construction in Consolidated Formations
920.80	Special Type Wells
920.90	Construction Materials and Other Requirements
920.100	Finishing and Testing
920.110	Modification of Wells
920.120	Abandoned Wells
920.130	Water Well Permit Requirements
920.140	Administrative Hearings
920.150	Designation of Agents of the Department
920.160	Issuance of Water Well and Closed Loop Well Permits by Units of Local Government or Local Health Departments
920.170	Monitoring Wells
920.180	Closed Loop Wells
920.190	Assurance of Potable Water Supply
920.200	Closed Loop Well System Permit Requirements
920.210	Examination for Closed Loop Well Contractor Certification and Fees
920.220	Closed Loop Contractor Registration, Renewal and Fees
920.230	Registered Closed Loop Well Contractor Responsibility
920.240	Closed Loop Well Continuing Education Sessions
920.250	Approval of Closed Loop Well Third Party Organizations
920.ILLUSTRATION A	Unconsolidated Formations: Oversized Drill Hole
920.ILLUSTRATION B	Unconsolidated Formations: Mechanically Driven Casing
920.ILLUSTRATION C	Gravel Pack Construction

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920.ILLUSTRATION D	Crevised Formations: Earth Cover Less Than 30 Feet Thick
920.ILLUSTRATION E	Crevised Formations: Earth Mantle Cover Over 30 Feet Thick – Oversized Drill Hole
920.ILLUSTRATION F	Crevised Formations: Earth Cover Over 30 Feet Thick – Mechanically Driven Casing
920.ILLUSTRATION G	Bored or Dug Well – Well Not Finished With Buried Slab
920.ILLUSTRATION H	Bored or Dug Well – Buried Slab Construction
920.ILLUSTRATION I	Installation of a Driven Well
920.ILLUSTRATION J	Sealing an Abandoned Well – Extending into a Crevised Formation
920.ILLUSTRATION K	Sealing an Abandoned Dug or Bored Well
920.ILLUSTRATION L	Sealing an Abandoned Well Extending into More Than One Water Bearing Formation
920.ILLUSTRATION M	Sealing an Abandoned Buried Slab Bored Well
920.TABLE A	Steel Casing and Liner Pipe Weights and Dimensions
920.TABLE B	Plastic Casing and Liner Pipe Specifications
920.TABLE C	Minimal Lateral Distances in Feet Between Water Wells, Closed Loop Wells, and Sources of Contamination

AUTHORITY: Implementing and authorized by the Illinois Water Well Construction Code [415 ILCS 30].

SOURCE: Adopted September 12, 1973; amended at 2 Ill. Reg. 42, p.35, effective October 16, 1978; rules repealed, new rules adopted and codified at 7 Ill. Reg. 9633, effective August 1, 1983; amended at 12 Ill. Reg. 2990, effective January 13, 1988; amended at 13 Ill. Reg. 11796, effective July 1, 1989; amended at 14 Ill. Reg. 228, effective January 1, 1990; amended at 14 Ill. Reg. 14871, effective September 1, 1990; amended at 15 Ill. Reg. 18188, effective January 1, 1992; amended at 18 Ill. Reg. 17684, effective November 30, 1994; amended at 22 Ill. Reg. 3973, effective April 1, 1998; amended at 24 Ill. Reg. 11934, effective August 1, 2000; amended at 37 Ill. Reg. 19676, effective November 25, 2013; amended at 38 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_.

**Section 920.10 Definitions**

"Abandoned Well" means a water or monitoring well that is no longer used to supply water, or that is in such a state of disrepair that the well or boring has the potential for transmitting contaminants into an aquifer or otherwise threatens the public health or safety.

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"Act" means the Illinois Water Well Construction Code [415 ILCS 30].

"Annular Space" means the opening between a well-hole excavation and the well casing or between a casing pipe and a liner pipe.

*"Aquifer" means saturated (with groundwater) soils and geologic materials which are sufficiently permeable to readily yield economically useful quantities of water to wells, springs, or streams under ordinary hydraulic gradients. (Section 3(b) of the Illinois Groundwater Protection Act [415 ILCS 55/3(b)])*

"Bentonite Grout" means a manufactured grout product that is a mixture of sodium bentonite and water mixed at the manufacturer's recommended ratio; a mixture of granulated sodium bentonite and water that consists of a minimum of 20 percent solid bentonite clay and water that is equivalent to 9.4 pounds/gallon; or sodium bentonite in the granulated or chip form. All bentonite products shall comply with National Sanitation Foundation (NSF) International requirements.

"Borehole" also known as "drill hole" means an excavation that is drilled, cored, driven, dug or otherwise constructed that penetrates an aquifer or that may degrade the quality of the aquifer.

"Cement" means a mixture consisting of cement, sand and water in the proportion of one bag of cement (94 pounds) and an equal volume of dry sand to not more than 6 gallons of clean water.

"Chemical Injection System" means any device or combination of devices having hose, pipe or other methods of conveyance that connect directly to any water well through which a mixture of water, pesticides and fertilizers is mixed or is drawn and applied to land, crops or plants at agricultural, nursery, turf, golf course or greenhouse sites.

*"Closed Loop Well" means a sealed, watertight loop of pipe buried outside of a building foundation intended to re-circulate a liquid solution through a heat exchanger but is limited to the construction of the borehole and the grouting of the borehole and does not include the piping and appurtenances used in any other capacity. "Closed loop well" does not include any horizontal closed loop well systems where grouting is not necessary by law or standard industry practice.*

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(Section 3(h) of the Act) "Closed Loop Heat Pump Well" means the same as "Closed Loop Well".

*"Closed Loop Well Contractor" means any person who installs closed loop wells for another person. "Closed loop well contractor" does not include the employee of a closed loop contractor. (Section 3(j) of the Act)*

"Closed Loop Well System" means a clustered group of closed loop wells that serve the same facility.

*"Community Water System" means a public water system which serves at least 15 service connections used by residents or regularly serves at least 25 residents for at least 60 days per year. (Section 9(a)(1) of the Illinois Groundwater Protection Act)*

"Consolidated Formation" means a geological formation that is firm rock referred to as bedrock.

*"Construction" means all acts necessary to obtaining ground water by any method, including without limitation the location of and the excavation for the well, but not including prospecting, surveying or other acts preparatory to those activities, nor the installation of pumps and pumping equipment. (Section 3(a) of the Act)*

*"Contaminant" means any physical, chemical, biological, or radiological substance or matter in water. (Section 9(a)(2) of the Illinois Groundwater Protection Act .*

"Crevice, Consolidated Formation" is a consolidated formation characterized by fractures.

"Department" means the Illinois Department of Public Health.

"Detention Pond" is an engineered structure designed to store storm water from a rain event. The elevation of the outlet structure designed to meet the release rate requirement is equivalent to the lowest elevation of the pond.

"Driven Water Well" means a well constructed by joining a drive point with

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lengths of pipe and then driving or jetting the assembly into the ground with percussion equipment or by hand.

"Established Ground Surface" means the elevation of the ground surface at the site of the well.

"Finished Ground Surface" means the final or permanent elevation of the ground surface at the site of the well.

"Flowing Artesian Well" means a well in which the water from the confined aquifer rises above the finished ground surface.

*"Ground Water" or "Groundwater" means water of underground aquifers, streams, channels, artesian basins, reservoirs, lakes and other water under the surface of the ground, whether percolating or otherwise. (Section 2(2) of the Illinois Water Well and Pump Installation Contractor's License Act)*

"Horizontal Closed Loop Well Systems" means any open cut excavation where a watertight loop of pipe is buried outside of a building foundation that is intended to re-circulate a liquid solution through a heat exchanger.

"Mechanically Driven" means a procedure by which a casing is fitted with a drive shoe and driven with a force sufficient to firmly seat the casing in rock or to the desired depth in unconsolidated formations.

"Modification" means the alteration of the structure of an existing water well, including, but not limited to, deepening, elimination of a buried suction line, installation of a liner, replacing, repairing or extending casing, or replacement of a well screen. Pertaining to closed loop wells, "modification" also means any alteration to the construction of the borehole of an existing closed loop well, including, but not limited to, regrouting and installation of additional boreholes.

"Monitoring Well" means a water well intended for the purpose of determining groundwater quality or quantity.

"Neat Cement Grout" means a mixture consisting of one bag of cement (94 pounds) to not more than 6 gallons of clean water. Bentonite or similar material may be added up to 6 percent by dry weight to increase fluidity or to control



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shrinkage.

*"Non-Community Water System" means a public water system which is not a community water system, and has at least 15 service connections used by nonresidents, or regularly serves 25 or more nonresident individuals daily for at least 60 days per year. (Section 9(a)(4) of the Illinois Groundwater Protection Act)*

*"Pitless Adapter Unit" means a factory assembled device consisting of a pitless well adapter, a mechanism that attaches to the well casing, and a well casing riser in a single unit, for the purpose of preventing contaminants from entering the well.*

*"Pitless Well Adapter" means an assembly of parts that will permit water to pass through the wall of the well casing or extension of the wall; provides access to the well and to the parts of the water system within the well; and provides for the transportation of the water and the protection of the well and water in the well, from surface or near surface contamination. Parts or appurtenances to a pitless well adapter include, but are not limited to, the vent, the device or devices on or in the wall of the casing, and the cap or cover on top of the casing or casing extension.*

*"Potable" means generally fit for human consumption in accordance with accepted water supply principles and practices. (Section 3(h) of the Illinois Groundwater Protection Act)*

*"Potential Primary Source" means any unit at a facility or site not currently subject to a removal or remedial action which:*

*is utilized for the treatment, storage, or disposal of any hazardous or special waste (as defined in Section 3 of the Environmental Protection Act) not generated at the site; or*

*is utilized for the disposal of municipal waste not generated at the site, other than landscape waste (as defined in Section 3 of the Environmental Protection Act) and construction and demolition debris; or*

*is utilized for the landfilling, land treating, surface impounding or piling*

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*of any hazardous or special waste (as defined in Section 3 of the Environmental Protection Act) that is generated on the site or at other sites owned, controlled or operated by the same person; or*

*stores or accumulates at any time more than 75,000 pounds above ground, or more than 7,500 pounds below ground, of any hazardous substances. (Section 3.345 of the Environmental Protection Act )*

*"Potential Route" means abandoned and improperly plugged wells of all kinds (i.e., those wells not plugged in accordance with this Part), drainage wells, all injection wells, including closed-loop heat pump wells, and any excavation for the discovery, development or production of stone, sand or gravel. This term does not include closed-loop heat pump wells using United States Pharmacopeia (USP) food grade propylene glycol. (Section 3.350 of the Environmental Protection Act)*

*"Potential Secondary Source" means any unit at a facility or a site not currently subject to a removal or remedial action, other than a potential primary source, which:*

*is utilized for the landfilling, land treating, or surface impounding of waste that is generated on the site or at other sites owned, controlled or operated by the same person, other than livestock and landscape waste, and construction and demolition debris; or*

*stores or accumulates at any time more than 25,000 but not more than 75,000 pounds above ground, or more than 2,500 but not more than 7,500 pounds below ground, of any hazardous substances; or*

*stores or accumulates at any time more than 25,000 gallons above ground, or more than 500 gallons below ground, of petroleum, including crude oil or any fraction thereof which is not otherwise specifically listed or designated as a hazardous substance; or*

*stores or accumulates pesticides, fertilizers, or road oils for purposes of commercial application or for distribution to retail sales outlets; or stores or accumulates at any time more than 50,000 pounds of any de-icing agent; or*

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*is utilized for handling livestock waste or for treating domestic wastewaters other than private sewage disposal systems as defined in the Private Sewage Disposal Licensing Act. (Section 3.355 of the Environmental Protection Act )*

"Pressure Grouting" means the placement of grout by a method using positive pressure.

*"Private Water System" means any supply which provides water for drinking, culinary, and sanitary purposes and serves an owner-occupied single family dwelling. (Section 9(a)(5) of the Illinois Groundwater Protection Act )*

*"Public Water System" means a system for the provision to the public of water for human consumption through pipes or other constructed conveyances, if the system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days per year. A public water system is either a community water system (CWS) or a non-community water system (non-CWS). The term "public water system" includes any collection, treatment, storage or distribution facilities under control of the operator of such system and used primarily in connection with such system and any collection or pretreatment storage facilities not under such control which are used primarily in connection with such system. (Section 9(a)(6) of the Illinois Groundwater Protection Act )*

"Pumping Water Level" means the depth to of the water surface in a well from the ground surface, top of casing or other established datum when water is discharged by pumping.

"Retention Pond" is an engineered structure designed to store storm water from a rain event. The elevation of the outlet structure designed to meet the release rate requirement is higher than the elevation of the pond base.

*"Semi-Private Water System" means a water supply which is not a public water system, yet which serves a segment of the public other than an owner-occupied single family dwelling. (Section 9(a)(7) of the Illinois Groundwater Protection Act)*

*"Site" means any location, place, tract of land, and facilities, including but not limited to buildings, and improvements used for purposes subject to regulation*

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*under the Environmental Protection Act. (Section 3.460 of the Environmental Protection Act)*

"Storm Sewer" means a sewer that is used for conveying rainwater, surface water, groundwater, subsurface water, site drainage, condensate, cooling water or other similar liquids (excluding treated or untreated domestic sewage) to a point of discharge.

"Thermal Grout" is a Department approved grout specifically developed to enhance the heat transfer in a closed loop well. Department approved closed loop well grouts shall have permeability no greater than  $1 \times 10^{-7}$  centimeters per second and all bentonite products shall comply with National Sanitation Foundation (NSF) International requirements. The Department will maintain a list of approved closed loop well grouts on its website at [www.idph.org](http://www.idph.org).

"Tremie Method" means pumping grout through a pipe that is inserted into the annular space to fill the space from the bottom upward to the ground surface or to the point of pitless adapter attachment.

"Unconsolidated Formation" means a geological formation above bedrock, such as sand or gravel, that is caving in nature.

"Undesirable Water" means water that contains contamination that exceeds Class I Groundwater Standards adopted in the Groundwater Quality Standards Code (35 Ill. Adm. Code 620, Subpart B).

*"Unit" means any device, mechanism, equipment, or area (exclusive of land utilized only for agricultural production).* (Section 3.515 of the Environmental Protection Act)

"Water-Bearing Formation" means any geologic formation that contains water.

*"Water Well" means 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, diversion, artificial recharge, or acquisition of ground water, but 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 an oil or natural gas bearing formation or for*

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*storing petroleum, natural gas or other products or for observation or any other purpose in connection with the development or operation of a gas storage project.* (Section 3(e) of the Act"

"Well" means a bored, drilled or driven shaft, or dug hole, the depth of which is greater than the largest surface dimension. (Section 3.555 of the Environmental Protection Act)

"Well Cap" means that portion of the pitless well adapter used to enclose the atmospheric termination of the casing, which shall overlap the top of the casing extension with a downward flange.

"Well Seal" means an arrangement or device used to establish a watertight closure at the junction of a well pump or piping with the well casing cover at the upper terminal of the well, the purpose of which is to prevent contaminated water or other material from entering the well.

(Source: Amended at 38 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

**Section 920. Table C Minimal Lateral Distances in Feet Between Water Wells, Closed-Loop Wells, and Sources of Contamination**

<u>SOURCES OF CONTAMINATION OR EXISTING WATER WELL</u>	<u>MINIMUM LATERAL DISTANCES FOR CLAY AND LOAM SOILS (FEET)</u>	
	<u>WATER WELL</u>	<u>CLOSED LOOP WELL</u>
<u>Cesspool</u>	<u>150</u>	<u>150</u>
<u>Closed Loop Well<sup>1</sup></u>	<u>200</u>	<u>NA</u>
<u>Water Well<sup>1</sup></u>	<u>NA</u>	<u>200</u>
<u>Water Well (when the owner of the closed loop well and a water well serving a private water supply is the same)<sup>1</sup></u>	<u>N/A</u>	<u>75</u>
<u>Leaching Pit</u>	<u>100</u>	<u>100</u>
<u>Pit Privy</u>	<u>75</u>	<u>75</u>
<u>Subsurface Seepage System, Distribution Box, Sand Filter, Waste Stabilization Pond, Effluent Receiving Trench</u>	<u>75</u>	<u>75</u>
<u>Manure Pile</u>	<u>75</u>	<u>75</u>

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<u>Septic Tank, Aerobic Treatment Plant, Surface Discharge Effluent Line, Treated Effluent Discharge Point</u>	<u>50</u>	<u>50</u>
<u>Barnyard or Animal Confinement Lot</u>	<u>50</u>	<u>50</u>
<u>Footing Drains (No connection to a sewer or sump handling sewage is allowed.)</u>	<u>10</u>	<u>10<sup>2</sup></u>
<u>Pump House Floor Drain</u>	<u>2</u>	<u>2<sup>2</sup></u>
<u>Pit, Crawl Space or Basement</u>	<u>5</u>	<u>5<sup>2</sup></u>
<u>Lake, Pond or Stream</u>	<u>25</u>	<u>25<sup>3</sup></u>
<u>Potential Primary Source, Potential Secondary Source, or Potential Route</u>	<u>200</u>	<u>200</u>
<u>Potential Primary Source, Potential Secondary Source, or Potential Route (where the owner of the source or route, and a water well serving a private water supply or closed loop well, is the same)</u>	<u>75</u>	<u>75</u>
<u>Abandoned Wells</u>	<u>200</u>	<u>200</u>
<u>Sewers (Sanitary or Combined)</u>	<u>50<sup>4</sup></u>	<u>50<sup>4,5</sup></u>
<u>Storm Sewers</u>	<u>10</u>	<u>10<sup>6</sup></u>

<sup>1</sup> A closed loop well utilizing USP food grade propylene glycol may be located to within 25 feet of a water well.

<sup>2</sup> These setbacks do not apply when the closed loop well is installed prior to the construction of the building.

<sup>3</sup> The 25-foot separation distance from a retention or detention pond does not apply to a closed loop well when:

- 1) The borehole is grouted between 24 and 72 hours of the construction of the borehole;
- 2) The borehole is grouted to the surface; and
- 3) The borehole is topped off to the header/manifold level, between 24 and 72 hours after the borehole is grouted, with a bentonite chip product manufactured for water well sealing.

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<sup>4</sup> A water well or closed loop well may be located to within 10 feet of a sewer provided that the sewer consists of cast iron pipe with watertight mechanical joints or rubber gasket sealed joints that meet ASTM Standard C564-11, SDR 26 PVC pipe or schedule 40 PVC pipe or heavier with solvent welded watertight joints or elastomeric seals (gaskets) used for push-on joints that meet ASTM Standard F477-10.

<sup>5</sup> If the sewer pipe material is unknown, the 50- foot separation distance may be reduced to 25 feet if the following conditions are met:

- 1) The top 20 feet of the borehole is bored to a diameter 3 inches greater than the total diameter of the heat exchanger.
- 2) The enlarged top 20 feet of the borehole is grouted with bentonite chips manufactured for well sealing.

<sup>6</sup> The 10-foot separation distance for a storm sewer does not apply to a closed loop well when:

- 1) The borehole is grouted between 24 and 72 hours of the construction of the borehole;
- 2) The borehole is topped off to the header/manifold level, between 24 and 72 hours after the borehole is grouted, with a bentonite chip product manufactured for water well sealing.

<b>SOURCES OF CONTAMINATION OR EXISTING WATER WELL</b>	<b>MINIMUM LATERAL DISTANCES FOR CLAY AND LOAM SOILS (FEET)</b>	
	<b>WATER WELL</b>	<b>CLOSED LOOP WELL</b>
Cesspool	150	150
Closed Loop Well <sup>†</sup>	200	NA
Water Well <sup>†</sup>	NA	200
Water Well (when the owner of the closed loop well and a water well serving a private water supply is the same) <sup>†</sup>	75	75
Leaching Pit	100	100
Pit Privy	75	75

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Subsurface Seepage System, Distribution Box, Sand Filter, Waste Stabilization Pond, Effluent Receiving Trench	75	75
Manure Pile	75	75
Septic Tank, Aerobic Treatment Plant, Surface Discharge Effluent Line, Treated Effluent Discharge Point	50	50
Barnyard or Animal Confinement Lot	50	50
Footing Drains (No connection to a sewer or sump handling sewage is allowed.)	10	10 <sup>2</sup>
Pump House Floor Drain	2	2 <sup>2</sup>
Pit, Crawl Space or Basement	5	5 <sup>2</sup>
Lake, Pond or Stream	25	25 <sup>3</sup>
Potential Primary Source, Potential Secondary Source, or Potential Route	200	200
Potential Primary Source, Potential Secondary Source, or Potential Route (where the owner of the source or route, and a water well serving a private water supply or closed loop well, is the same)	75	75
Abandoned Wells	200	200
Sewers (Storm, Sanitary or Combined) <sup>4</sup>	50 <sup>5</sup>	50 <sup>5</sup>

<sup>1</sup>—A closed loop well utilizing USP food grade propylene glycol may be located to within 25 feet of a water well.

<sup>2</sup>—These setbacks do not apply when the closed loop well is installed prior to the construction of the building.

<sup>3</sup>—The 25 feet separation distance for a retention or detention pond does not apply to a closed loop well when:

- 1) The borehole is grouted the same day the borehole is constructed;
- 2) The borehole is grouted to the surface; and
- 3) The borehole is topped off, between 24 and 48 hours after the borehole is grouted, with a bentonite chip product manufactured for water well sealing.



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- ~~<sup>4</sup>A water well or closed loop well may be located to within 10 feet of a sewer provided the sewer consists of cast iron pipe with watertight mechanical joints or rubber gasket sealed joints that meet ASTM Standard C564-11, SDR 26 PVC pipe or schedule 40 PVC pipe or heavier with solvent welded watertight joints or elastomeric seals (gaskets) used for push-on joints that meet ASTM Standard F477-10.~~
- ~~<sup>5</sup>If the sewer pipe material is unknown, the 50 feet separation distance may be reduced based upon the site specific conditions. Both the water well permit application and the closed loop well permit application will have a section to identify the site specific conditions for reducing the 50 feet separation distance.~~

(Source: Amended at 38 Ill. Reg. \_\_\_\_\_ effective \_\_\_\_\_)