

ILLINOIS POLLUTION CONTROL BOARD

May 17, 2012

IN THE MATTER OF:)
)
SETBACK ZONE FOR FAYETTE WATER) R11-25
COMPANY COMMUNITY WATER) (Rulemaking - Public Water Supply)
SUPPLY: AMENDMENTS TO 35 ILL.)
ADM. CODE 618)

Proposed Rule. Second Notice.

OPINION AND ORDER OF THE BOARD (by T.A. Holbrook):

The Board today proposes amendments to Part 618 of its public water supplies regulations for second-notice review by the Joint Committee on Administrative Rules (JCAR). The Illinois Environmental Protection Agency (Agency or Illinois EPA) initiated this proceeding by filing a rulemaking proposal on April 21, 2011. Pursuant to Section 14.3 of the Environmental Protection Act (Act) (415 ILCS 5/14.3 (2010)), the Agency sought to establish a maximum setback zone for six wells owned by the Fayette Water Company (FWC) in Fayette County. The Agency also proposed to reorganize Part 618 to accommodate future establishment of additional maximum setback zones.

In an order dated March 1, 2012, the Board submitted proposed amendments to first-notice publication in the *Illinois Register*. See 36 Ill. Reg. 4015 (Mar. 16, 2012). During the 45-day public comment period (see 5 ILCS 100/5-40(b) (2010)), the Board receive no comment on its proposed amendments. Today, the Board submits its first-notice proposal without substantive amendment to second-notice review by JCAR (see 5 ILCS 100/5-40(c) (2010)).

In the opinion below, the Board first provides the procedural background of this rulemaking before briefly summarizing its first-notice opinion and order. After discussing issues of technical feasibility and economic reasonableness, the Board concludes to submit proposed amendments to JCAR for second-notice review. Finally, the Board's order sets forth the proposed amendments.

PROCEDURAL HISTORY

On April 21, 2011, the Agency filed a proposal to amend Part 618 of the Board's public water supply regulations. Accompanying the proposal were documents including a Statement of Reasons (SR). In an order dated May 5, 2011, the Board accepted the proposal for hearing.

In an order dated May 6, 2011, the hearing officer scheduled a hearing on July 27, 2011, at the Fayette County Courthouse in Vandalia. The order set deadlines of June 8, 2011, to pre-file testimony; June 29, 2011, to pre-file questions based on that testimony; and July 20, 2011, to pre-file written answers to those questions.

On June 6, 2011, the Agency pre-filed the testimony of Mr. Richard P. Cobb, P.G. (Cobb Test). Mr. Cobb's pre-filed testimony included the following ten attachments:

Richard P. Cobb's *Curriculum Vitae* (Att. A),
 Transverse Mercator Projection (Att. B),
 USGS [United States Geological Survey] DEM [digital elevation model¹] at the FWC Well Field (Att. C),
 Map of the Pennsylvanian Bedrock at the FWC Well Field (Att. D),
 Map of the Quaternary Geology at the FWC Well Field (Att. E.),
 Map of the Glacial Deposit Thickness at the FWC Well Field (Att. F),
 Principal Sand and Gravel Aquifers in Illinois (Att. G),
 Principal Sand and Gravel Aquifer in the FWC Well Field (Att. H),
 Potential for Aquifer Recharge in Illinois (Att. I), and
 Potential for Aquifer Recharge at the FWC Well Field (Att. J).

No participant pre-filed questions based on Mr. Cobb's pre-filed testimony. In an order dated July 14, 2011, the hearing officer directed the Agency to prepare to address at hearing questions enclosed as Attachment A and based both on the Agency's Statement of Reasons and Mr. Cobb's pre-filed testimony.

The first hearing took place as scheduled on July 27, 2011, and the Board received the transcript (Tr.1) on August 1, 2011. During the first hearing, the hearing officer admitted into the record two exhibits: Mr. Cobb's pre-filed testimony; and the Agency's written responses to the questions attached to the hearing officer order of July 14, 2011. Tr.1 at 9-11. The Agency's written responses included the following six attachments:

Map of aquifer, FWC well field and the existing underground pipeline (Att. I),
 Map of pipeline within the existing setback zone (Att. II),
 Wolfe Affidavit filed in ICC [Illinois Commerce Commission] Case No. 07-0446 (Att. III),
 Enbridge's response to ICC staff regarding FWC wells in ICC Case No. 07-0446 (Att. IV),
 Lateral Area of Influence (LAI) and Agency confirmation (Att. V), and
 Well logs and construction logs (Att. VI).

In an order dated August 2, 2011, the hearing officer scheduled a second hearing on September 22, 2011, in Chicago and set a deadline of September 8, 2011 to pre-file testimony for it. No participant pre-filed testimony for the second hearing, which took place as scheduled on September 22, 2011. The Board received the transcript of the second hearing on September 23, 2011.

In an order dated September 23, 2011, the hearing officer set a deadline of October 7, 2011, to file post-hearing comments. The Board received no post-hearing comments.

¹ The Agency describes DEM as "a digital file consisting of terrain elevations for ground positions at regularly spaced horizontal intervals." Cobb Test. at 4 n.5.

On March 1, 2012, the Board adopted its first-notice opinion and order (Board Order). *See* 36 Ill. Reg. 4015 (Mar. 16, 2012). The Board did not receive a comment during the statutory first-notice comment period. *See* 5 ILCS 100/5-40(b) (2010).

FIRST-NOTICE OPINION AND ORDER

In proceeding to first notice on March 1, 2012, the Board adopted a 32-page opinion followed by a 6-page order. Since adopting that first-notice opinion and order, the Board has not received public comment or substantively amended its proposal. Accordingly, substantial portions of the Board's first-notice opinion, including the review of the record and conclusions on various issues, support the Board's conclusion to proceed to second notice. The Board has not duplicated various section of its first-notice opinion and instead refers readers to that opinion with regard to various issues.

Specifically, the Board's first notice opinion summarized the statutory background of and authorities for the Agency's original proposal. Board Order at 3-12. Next, that opinion addressed the factual background of the proposal, including the hydrology and hydrogeology of the site of the FWC wells (*id.* at 12-14), the location of the wells (*id.* at 14-15), the bedrock geology and quaternary geology of that location (*id.* at 15-16), a description of the Cahokia Aquifer used by the wells (*id.* at 16-17), the FWC public water supply system (*id.* at 17-19), and the determination of the LAI of the wells (*id.* at 20).

The Board's first-notice opinion and order next addressed the Agency's original rulemaking proposal, including its development and projected effects. Board Order at 20-23. The Board then discussed issues including the development of the LAI, notice of the proposed setback zone, action by the Fayette County Board, and the environmental basis for the proposed setback zone. *Id.* at 23-26. The Board also reviewed the issues of economic reasonableness and technical feasibility. *Id.* at 27-28. The Board then provided a section-by-section summary of the record in support of its first-notice proposal (*id.* at 28-31) before reaching its conclusion and issuing its order (*id.* at 31-32).

The full text of the Board's first-notice opinion and order is available under this docket number R11-25 from the Clerk's Office On-Line, or COOL, through the Board's Web page at www.ipcb.state.il.us.

ECONOMIC REASONABLENESS AND TECHNICAL FEASIBILITY

DCEO Economic Impact Study Not Required

Section 27(b)(1) of the Act requires that, before adopting substantive rules, the Board shall "request that the Department of Commerce and Economic Opportunity [DCEO] conduct a study of the economic impact of the proposed rules." 415 ILCS 5/27(b)(1) (2010). However, Section 14.3(d) of the Act addressing maximum setback zones provides in pertinent part that "[r]ulemaking proceedings initiated by the Agency under this subsection shall be conducted by the Board pursuant to Title VII of this Act, except that subsection (b) of Section 27 shall not

apply.” 415 ILCS 5/14.3(d) (2010). Accordingly, the Board has not requested and does not intend to request that DCEO conduct an economic impact study of these proposed rules.

Economic Factors and Impact

In its Statement of Reasons, the Agency projected economic consequences of polluted groundwater to local communities. The Agency indicated that

[g]roundwater contamination can produce significant economic hardships for local businesses and communities, including the following: devalued real estate; diminished home sales or commercial real estate sales; loss to the tax base; consulting and legal fees; increased operation and maintenance costs; increased water rates for alternative water supplies as well as the cost of new equipment and treatment and remediation costs including site characterization, feasibility studies, and long-term treatment and disposal costs. SR at 11.

The Agency argued that “establishing a maximum setback will reduce the likelihood of contamination, thereby reducing costs.” *Id.*; see SR at 10.

In his testimony on behalf of the Agency, Mr. Cobb stated that Southern Illinois is generally marked by thin and discontinuous deposits of sand and gravel which do not yield useful quantities of water. Cobb Test. at 6; see SR at 9. He added that “[p]otable resource groundwater is very rare in the southern half of the State.” Cobb Test. at 6; see SR at 9. Mr. Cobb stated that the Cahokia Aquifer from which FWC draws has both “a high potential for aquifer recharge” and “an intrinsically high vulnerability to groundwater contamination.” Cobb Test. at 6-7; see SR at 5. In the event that contamination occurred, the Agency claims that the hydrogeology of southern Illinois would make it difficult to find sites for replacement wells. SR at 10. Reliance on replacement wells would result in either the construction of costly and lengthy water mains or the withdrawal of groundwater in lower quantities and of poorer quality. *Id.*

Based on this record, the Board found in its first-notice opinion that the proposed maximum setback zone prohibiting any new potential primary source of groundwater contamination within the proposed zone is economically reasonable and will not have an adverse economic impact on the people of the State. Board Order at 27; see 415 ILCS 5/27, 28 (2010). Since the Board proceeded to first notice on March 1, 2012, no addition to the record has disputed this finding. Consequently, the Board finds that its second-notice proposal below is economically reasonable and will not have an adverse economic impact on the people of the state. See 415 ILCS 5/27, 28 (2010).

Technical Feasibility

In citing the economic consequences of polluted groundwater, the Agency suggested that local communities may also experience technical burdens of water pollution, including long-term treatment and disposal, installation of new equipment, expanded operational and maintenance responsibilities, and securing alternative water supplies. See SR at 11. The Agency further

suggested that, by reducing the risk of contamination, a maximum setback would reduce the likelihood of these technical burdens. *See id.*

Based on this record, the Board found in its first-notice opinion that the proposed maximum setback zone prohibiting any new potential primary source of groundwater contamination within the proposed zone is technically feasible. Board Order at 28; *see* 415 ILCS 5/27, 28 (2010). Since the Board proceeded to first notice on March 1, 2012, no addition to the record has disputed this finding. Consequently, the Board finds that its second-notice proposal below is technically feasible.

CONCLUSION

The Board today concludes to submit its first-notice proposal without significant substantive amendments for second notice review by JCAR. In its order below, the Board directs the Clerk to submit the proposed amendments to Part 618 of its public water supply rules to JCAR.

ORDER

The Board directs the Clerk to submit the following proposed amendments to the Board's regulations to JCAR for second-notice review. Proposed additions are underlined, and proposed deletions appear stricken.

TITLE 35: ENVIRONMENTAL PROTECTION
SUBTITLE F: PUBLIC WATER SUPPLIES
CHAPTER I: POLLUTION CONTROL BOARD

PART 618
MAXIMUM SETBACK ZONES

SUBPART A: GENERAL

Section	
618.100	Purpose and Applicability
618.105	Definitions
<u>618.110</u>	<u>Regulated Activities, Facilities or Units</u>
<u>618.115</u>	<u>Prohibitions</u>

SUBPART B: ESTABLISHED MAXIMUM SETBACK ZONES MARQUETTE HEIGHTS'
~~MAXIMUM SETBACK ZONE~~

Section	
618.200	Purpose and Applicability
618.205	Marquette Heights' Maximum Setback Zone 1,000 Foot Maximum Setback Zone Prohibition

618.210 Fayette Water Company's Maximum Setback Zone.

618.APPENDIX A Boundaries of Marquette Heights' Maximum Setback Zone

618.APPENDIX B Boundaries of Fayette Water Company's Maximum Setback Zone

AUTHORITY: Implementing Section 14.3 and authorized by Section 27 of the Illinois Environmental Protection Act [415 ILCS 5/14.3 and 27].

SOURCE: Adopted in R05-9 at 30 Ill. Reg. 10448, effective May 23, 2006; amended at 36 Ill. Reg. _____, effective _____.

SUBPART A: GENERAL

Section 618.100 Purpose and Applicability

- a) This Part is established in the interest of securing the public health, safety, and welfare; to preserve the quality and quantity of groundwater resources in order to assure a safe and adequate water supply for present and future generations; and to preserve groundwater resources currently in use and those aquifers having a potential for future use as a public water supply.
- b) ~~The Pursuant to the authority of Section 14.3(d) of the Illinois Environmental Protection Act (Act) [415 ILCS 5/14.3(d)], the provisions of this Part apply to all properties located wholly or partially within a maximum setback zone established under Section 14.3(d) of the Act and this Part.~~

(Source: Amended at 36 Ill. Reg. _____, effective _____)

Section 618.105 Definitions

- a) ~~Unless specified otherwise, all terms shall have the meanings set forth in the Illinois Environmental Protection Act [415 ILCS 5], the Illinois Groundwater Protection Act [415 ILCS 55], and 35 Ill. Adm. Code 671. Unless a different meaning of a word or term is clear from the context, the definitions of words or terms in this Part are the same as those used in the Act, the Illinois Groundwater Protection Act [415 ILCS 55], or 35 Ill. Adm. Code 671.~~
- b) For the purposes of this Part, the following definitions apply:
 - “Act” means the Illinois Environmental Protection Act [415 ILCS 5].
 - “Agency” means the Illinois Environmental Protection Agency.
 - “Board” means the Illinois Pollution Control Board.

“Facility” means *the buildings and all real property contiguous thereto, and the equipment at a single location used for the conduct of business* [430 ILCS 45/3].

“New Potential Primary Source” means:

a potential primary source which is not in existence or for which construction has not commenced at its location as of January 1, 1988; or

a potential primary source which expands laterally beyond the currently permitted boundary or, if the primary source is not permitted, the boundary in existence as of January 1, 1988; or

a potential primary source which is part of a facility that undergoes major reconstruction. Such reconstruction shall be deemed to have taken place where the fixed capital cost of the new components constructed within a 2-year period exceed 50% of the fixed capital cost of a comparable entirely new facility [415 ILCS 5/3.345].

“New Potential Route” means:

a potential route which is not in existence or for which construction has not commenced at its location as of January 1, 1988; or

a potential route which expands laterally beyond the currently permitted boundary or, if the potential route is not permitted, the boundary in existence as of January 1, 1988 [415 ILCS 5/3.350].

“New Potential Secondary Source”;

means *a potential secondary source which:*

is not in existence or for which construction has not commenced at its location as of July 1, 1988; or

expands laterally beyond the currently permitted boundary or, if the secondary source is not permitted, the boundary in existence as of July 1, 1988, other than an expansion for handling of livestock waste or for treating domestic wastewaters; or

is part of a facility that undergoes major reconstruction. Such reconstruction shall be deemed to have taken place where the fixed capital cost of the new components constructed within a 2-year period exceed 50% of the fixed capital cost of a comparable entirely new facility [415 ILCS 5/3.355]; but

excludes an agrichemical facility that *modifies on-site storage capacity such that the volume of the pesticide storage does not exceed 125% of the available capacity in existence on April 1, 1990, or the volume of fertilizer storage does not exceed 150% of the available capacity in existence on April 1, 1990; provided that a written endorsement for an agrichemical facility permit is in effect under Section 39.4 of the Act and the maximum feasible setback is maintained. This on-site storage capacity includes mini-bulk pesticides, package agrichemical storage areas, liquid or dry fertilizers, and liquid or dry pesticides.* [415 ILCS 5/14.2(g)(4)]-

“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 not generated at the site; or

is utilized for the disposal of municipal waste not generated at the site, other than landscape waste and construction and demolition debris; or

is utilized for the landfilling, land treating, surface impounding or piling of any hazardous or special waste 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 [415 ILCS 5/3.345].

“Potential route” means *abandoned and improperly plugged wells of all kinds, 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 [415 ILCS 5/3.350].*

“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

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 [415 ILCS 5/3.355].

“Setback zone” means *a geographic area, designated pursuant to the Act, containing a potable water supply well or a potential source or potential route, having a continuous boundary, and within which certain prohibitions or regulations are applicable in order to protect groundwaters [415 ILCS 5/3.450].*

“Site” means *any location, place, tract of land, and facilities, including but not limited to buildings, and improvements used for purposes subject to regulation or control by the Act or regulations thereunder [415 ILCS 5/3.460].*

“Unit” means *any device, mechanism, equipment, or area (exclusive of land utilized only for agricultural production). This term includes secondary containment structures and their contents at agrichemical facilities. [415 ILCS 5/3.515]*

“Unit boundary” means *a line at the land’s surface circumscribing the area on which, above which, or below which waste, pesticides, fertilizers, road oils or de-icing agents will be placed during the active life of the facility. The space taken up by any liner, dike or other barrier designed to contain waste, pesticides, fertilizer, road oils, or de-icing agents falls within the unit boundary.*

(Source: Amended at 36 Ill. Reg. _____, effective _____)

Section 618.110 Regulated Activities, Facilities or Units

All new or existing activities, facilities or units located wholly or partially in any maximum setback zone created by this Part will be subject to the groundwater rules set forth in Section 14.4 of the Act and any Board regulations promulgated pursuant to Section 14.4 of the Act, including, but not limited to, 35 Ill. Adm. Code 615 and 616.

(Source: Added at 36 Ill. Reg. _____, effective _____)

Section 618.115 Prohibitions

New potential primary sources of groundwater contamination are prohibited from locating wholly or partially within any maximum setback zone established under Section 14.3 of the Act or this Part.

(Source: Added at 36 Ill. Reg. _____, effective _____)

SUBPART B: ESTABLISHED MAXIMUM SETBACK ZONESMARQUETTE HEIGHTS' MAXIMUM SETBACK ZONE

Section 618.200 Purpose and ~~Applicability~~

a) ~~This Subpart prescribes maximum setback zones for individual community water supply wells prohibitions and the applicable technology control regulations that apply under 35 Ill. Adm. Code 615 and 616 in the interest of securing the public health, safety, and welfare; to preserve the quality and quantity of groundwater resources in order to assure a safe and adequate water supply for present and future generations; and to preserve groundwater resources currently in use and those aquifers having a potential for future use as a public water supply.~~

- b) ~~The provisions of this Subpart apply to all properties located wholly or partially within the maximum setback zone boundaries of Marquette Heights, as delineated in Appendix A of this Part:~~
- 1) ~~That are new potential primary sources of groundwater contamination pursuant to Section 14.3(d) of the Act; or~~
 - 2) ~~That are existing or new activities regulated under 35 Ill. Adm. Code 615 or 616, excluding agricultural facilities that affirmatively opt out of 35 Ill. Adm. Code 615 or 616, which are regulated instead under 8 Ill. Adm. Code 257 or 77 Ill. Adm. Code 830.~~

(Source: Amended at 36 Ill. Reg. _____, effective _____)

Section 618.205 Marquette Heights' Maximum Setback Zone ~~1,000 Foot Maximum Setback Zone Prohibition~~

The New potential primary sources of groundwater contamination are prohibited from locating wholly or partially within the Marquette Heights' maximum setback zone is established as boundaries delineated in Appendix A of this Part.

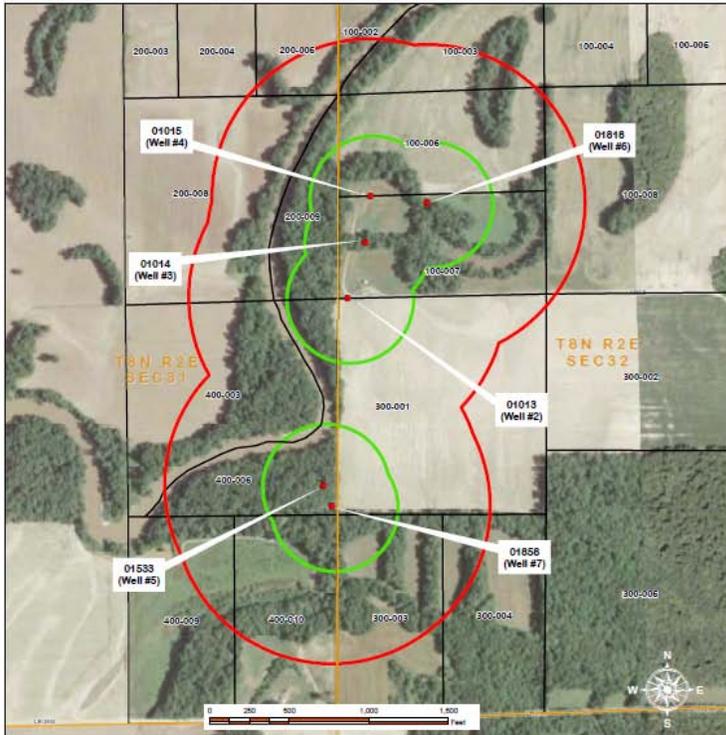
(Source: Amended at 36 Ill. Reg. _____, effective _____)

Section 618.210 Fayette Water Company's Maximum Setback Zone

The Fayette Water Company's maximum setback zone is established as delineated in Appendix B of this Part.

(Source: Added at 36 Ill. Reg. _____, effective _____)

Section 618.APPENDIX B: Boundaries of Fayette Water Company's Maximum Setback Zone



**PROPOSED MAXIMUM SETBACK ZONE
FAYETTE WATER COMPANY (IL0510010)
T8N R2E 3TH PRINCIPAL MERIDIAN**

SECTION 31

Partially Contained	Wholly Contained
200 - 004	400 - 008
200 - 005	
200 - 008	
400 - 003	
400 - 006	
400 - 008	
400 - 009	
400 - 010	

SECTION 32

Partially Contained	Wholly Contained
100 - 002	100 - 007
100 - 003	
100 - 006	
100 - 008	
300 - 001	
300 - 002	
300 - 003	
300 - 004	

- Legend**
- Community Water Supply Wells
 - CWS Wells Minimum Setback Zone
 - Proposed Maximum Setback Zone
 - Fayette County PINS
 - Section Boundaries

SOURCE INFORMATION
Fayette County PINS obtained from the Fayette County Assessor's Office. Aerial photography obtained from Microsoft's Virtual Earth. Minimum and maximum setback zones, and CWS wells maintained by, and map compiled and created by the Illinois EPA, Division of Water Supplies, Groundwater Section.

(Added at 36 Ill. Reg. _____, effective _____)

IT IS SO ORDERED.

I, John T. Therriault, Assistant Clerk of the Illinois Pollution Control Board, certify that the Board adopted the above opinion and order on May 17, 2012, by a vote of 5-0.

John T. Therriault, Assistant Clerk
Illinois Pollution Control Board