**Section 602.245 Source Construction Applications**

a) Construction permit applications for the construction of a new, or the modification of an existing, well or surface water intake or the construction of a water main to transport water purchased from another community water supply must include the following:

1) Existing and proposed finished water quality, including:

A) Hardness;

B) Calcium;

C) Alkalinity;

D) pH;

E) Orthophosphate;

F) Silicate;

G) Total Dissolved Solids;

H) Oxidation-reduction potential (ORP);

I) Temperature;

J) Chloride;

K) Sulfate;

L) Iron;

M) Manganese;

N) Chlorine residual (total); and

O) Chlorine residual (free).

2) A recommendation of the treatment necessary to reduce corrosion in household plumbing.

b) Well construction permit applications must specify the following:

1) the latitude and longitude of the well location;

2) the location and nature of all potential routes, potential primary sources, and potential secondary sources of contamination within 2,500 feet of the well location;

3) for sites subject to flooding, the well casing heights and the maximum flood level based upon the highest flood level specified in the best available information, such as the flood of record, the 100-year flood projection, or the 500-year flood projection;

4) a general aquifer description;

5) the total well depth;

6) the well casing diameter, material, depth, weight, height above ground, and thickness;

7) the grout type, thickness, and depth;

8) the screen diameter, material, slot size, and length, if applicable;

9) temporary capping and security measures during well construction;

10) proposed pump test procedures;

11) sampling procedures, if necessary under 35 Ill. Adm. Code 611.212, for wells that may be subject to surface water influences;

12) the type, design capacity, head rating, and depth of pump setting;

13) the column pipe diameter, length, material, and joint;

14) the discharge pipe diameter, depth of cover, material, and valving;

15) the casing vent diameter;

16) the airline length;

17) the location of the raw water sample tap;

18) a description of how the top of the well casing is sealed;

19) a description of access to the well site; and

20) well hydraulics and aquifer property data.

c) The following information must be submitted on plans for well construction permit applications:

1) the well location with the following information:

A) a 2,500-foot radius showing the location of potential routes, potential primary sources, and potential secondary sources of contamination;

B) cleanup sites within 2,500 feet of the proposed well site with any of the following:

i) No Further Remediation (NFR) letter;

ii) Groundwater Management Zone (GMZ);

iii) Environmental Land Use Covenant (ELUC); or

iv) an ordinance that restricts the use of groundwater; and

C) a 400-foot radius showing the location of the sources of pollution listed in 35 Ill. Adm. Code 604.150(a);

2) a cross-section of the well showing finished grade, natural ground surface, vent, casing, column pipe, screen, well depth, pump depth, grout, gravel pack, and discharge piping;

3) all discharge piping, including pressure gauge, meter, sample tap, check valve, shut-off valve, and vacuum/air release valve, if applicable;

4) well house construction, if provided;

5) the locations of all electrical junction boxes;

6) the locations of all observation wells; and

7) piping showing the ability to pump to waste.

d) The following information must be submitted on plans for surface water intake construction permit applications:

1) plan and profile views of the intake structure showing the location, elevation of intake ports, fish screens, valves, piping, and pumps, if applicable;

2) for sites subject to flooding, the maximum flood level based upon the highest flood level specified in the best available information, such as the flood of record, the 100-year flood projection, or the 500-year flood projection;

3) location of inspection manholes, if applicable; and

4) location of chemical treatment, if applicable.

(Source: Amended at 47 Ill. Reg. 7449, effective May 16, 2023)