

## CHAPTER 94

# WELLHEAD PROTECTION

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**94.01 PURPOSE.** The purpose of this chapter is to institute land use regulations and restrictions to protect the City's water supply and well fields, restrict the location of potential sources of contamination in close proximity to a public water supply, and to promote the public health, safety and general welfare of the residents of the City.

**94.02 DEFINITIONS.** As used in this chapter:

1. "Aquifer" means a rock formation, group of rock formations or part of a rock formation that contains enough saturated permeable material to yield significant quantities of water.
2. "Contamination" means the presence of any harmful or deleterious substances in the water supply.
3. "Groundwater" means subsurface water in the saturated zone from which wells, springs and groundwater runoff are supplied.
4. "Hazardous substances" means those materials specified in Section 94.03.
5. "Labeled quantities" means the maximum quantity of chemical as recommended on the label, for specific applications.
6. "Petroleum product" means fuels (gasoline, diesel fuels, kerosene, and mixtures of these products), lubricating oils, motor oils, hydraulic fluids, and other similar products.
7. "Pollution" means the presence of any substance (organic, inorganic, radiological or biological) or condition (temperature, pH, turbidity) in water that tends to degrade its quality so as to constitute a hazard or impair the usefulness of the water.
8. "Potable water" means water that is satisfactory for drinking, culinary and domestic purposes, meeting current drinking water standards.
9. "Primary containment" means the first level of product-tight containment, i.e., the inside portion of that container which comes into immediate contact on its inner surface with the hazardous material being contained.
10. "Public utility" means any utility (gas, water, sewer, electrical, telephone, cable television, etc.) whether publicly owned or privately owned.
11. "Regulated substance" means substances included under Section 94.03.

12. "Secondary containment" means the level of product-tight containment external to and separate from the primary containment. Secondary containment shall consist of leakproof trays under containers, floor curbing or other containment systems and shall be of adequate size and design to handle all spills, leaks, overflows and precipitation until appropriate action can be taken. The specific design and selection of materials shall be sufficient to preclude any substance loss. Containment systems shall be sheltered so that the intrusion of precipitation is effectively prevented.

13. "Toxic substance" means any substance that has the capacity to produce personal injury or illness to humans through ingestion, inhalation or absorption into the body.

14. "Water pollution" means the introduction in any surface or underground water of any organic or inorganic deleterious substance in such quantities, proportions and accumulations that are injurious to human, plant, animal, fish and other aquatic life or property or that unreasonably interferes with the comfortable enjoyment of life or property or the conduct of business.

15. "Well" means a pit or hole sunk into the earth to reach a resource supply such as water.

16. "Wellhead protection zone" means zones delineated by fixed radii around wellheads, within which toxic substances will be regulated to protect the quality of the underground resource.

**94.03 SUBSTANCES REGULATED.** The materials regulated by this chapter consist of the following:

1. Petroleum products as defined in Section 94.02.
2. Substances listed in 40 CFR part 261, subparts C and D, of the Federal Hazardous Waste List.
3. Substances listed by the Iowa Labor Commissioner pursuant to Section 898.12 of the Code of Iowa (Hazardous Chemicals Risks--Right to Know).

**94.04 WELLHEAD PROTECTION ZONE MAPS AND LISTING.** Wellhead protection zone maps and listing of locations and any amendments thereto are incorporated by reference and made a part of this chapter. These maps shall be on file at City Hall. At the time of adoption of the ordinance codified in this chapter, the location of all wells in Reinbeck supplying potable water to the City water system shall be located on the official wellhead protection map with primary and secondary protection zones indicated. Such maps shall be provided to the City Clerk, Building Official, County Health Department, and any other agency requesting the maps. The wellhead protection zone maps may be updated on an annual basis. The basis for such an update may include, but is not limited to, the following:

1. Changes in the technical knowledge concerning the aquifer;
2. Changes in permitted pumping capacity of City well fields;
3. Addition or deletion of wells;
4. Designation of new well fields.

**94.05 PRIMARY AND SECONDARY ZONES.** The zones of protection indicated on the wellhead protection maps are as follows:

1. Primary Protection Zone. An area extending two hundred (200) feet radially from any well supplying potable water to the City water system.
2. Secondary Protection Zone. An area extending between two hundred (200) and two thousand six hundred forty (2,640) feet radially from any well supplying potable water to the City water system.

**94.06 DETERMINATION OF LOCATION OF PROPERTIES WITHIN ZONES.** In determining the location of properties within the zones depicted on the wellhead protection zone maps, the following rules shall apply:

1. Properties located wholly within one zone reflected on the applicable wellhead protection zone map shall be governed by the restrictions applicable to that zone.
2. For properties having parts lying within more than one zone as reflected on the applicable wellhead protection zone map, each part shall be governed by the restrictions applicable to the zone in which it is located.

**94.07 REGULATIONS GOVERNING PRIMARY PROTECTION ZONES.**

1. Permitted Uses. The following uses are permitted uses within the primary protection zone (Zone A):
  - A. Parks, provided there is no on-site waste disposal or fuel storage tank facilities associated within this use, and the Iowa Department of Natural Resources (DNR) Separation Distances From Wells for sources of contamination is complied with;
  - B. Playgrounds;
  - C. Wildlife areas;
  - D. Nonmotorized trails, such as biking, skiing, nature and fitness trails.
2. Prohibited Uses. The following uses are prohibited uses within the primary protection zone (Zone A). Uses not listed are not considered permitted uses unless specifically listed under subsection 1 of this section, subsection 3 of this section, or issued a permit under Section 94.12:
  - A. Wastewater treatment facilities;
  - B. Septage and/or sludge spreading;
  - C. Agricultural activities;
  - D. Animal waste facilities;
  - E. Animal confinement facilities;
  - F. Animal waste landspreading;
  - G. Gas stations;
  - H. Asphalt products manufacturing;
  - I. Electroplating facilities;
  - J. Landfills or waste disposal facilities;
  - K. Spray wastewater facilities;

- L. Junkyards or auto salvage yards;
- M. Pesticide, herbicide or fertilizer use, storage, mixing, handling, or manufacturing facilities (excluding residential uses consistent with labeled quantities);
- N. Hazardous and toxic materials storage and use;
- O. Hazardous and toxic waste facilities;
- P. Radioactive waste facilities;
- Q. Paint and/or coating manufacturing;
- R. Salt Storage.

3. **Uses Requiring Permits.** The following uses are prohibited uses within the primary protection zone (Zone A) unless a permit is granted by the City Council for such use as under Section 94.12. Uses not listed are not to be considered permitted uses, unless specifically listed above under subsection 1 or issued a permit under Section 94.12:

- A. Sewered or unsewered residential uses;
- B. On-site private sewage systems;
- C. Underground storage tanks;
- D. Vehicle repair establishments, including auto body repair;
- E. Printing and duplicating businesses;
- F. Bus or truck terminals;
- G. Dry cleaning businesses;
- H. Exterminating businesses;
- I. Basement storage tanks;
- J. Repair shops for items other than vehicles;
- K. All commercial or industrial businesses not specifically listed elsewhere in this chapter.

4. **Discharge of Hazardous Substances Prohibited.** No person shall discharge or cause or permit the discharge of a hazardous substance, in excess of labeled quantities, to the soils, groundwater, or surface water within the primary protection zone (Zone A). Any person knowing or having evidence of a discharge shall report such information to the wellhead protection officer.

#### **94.08 REGULATIONS GOVERNING SECONDARY PROTECTION ZONES.**

1. **Permitted Uses.** The following uses are permitted in the secondary protection zone (Zone B):

- A. All uses listed as permitted in the primary protection zone (Zone A);
- B. Sewered residential, commercial and/or industrial uses not prohibited under subsection 2 of this section;
- C. Aboveground storage tanks of six hundred sixty gallons or less;

D. Basement storage tanks.

2. Prohibited Uses. The following uses are prohibited uses within the secondary protection zone (Zone B). Uses not listed are not considered permitted uses unless they are specifically listed under subsection 1 of this section, specifically listed under subsection 3, or issued a permit under Section 94.12:

- A. Landfills or waste disposal facilities;
- B. Spray wastewater facilities;
- C. Junkyards or auto salvage yards;
- D. Hazardous and toxic materials storage and use;
- E. Hazardous and toxic waste facilities;
- F. Radioactive waste facilities.

3. Uses Requiring Permits. The following uses are prohibited within the secondary protection zone (Zone B) unless a permit is issued for such use by the City Council as under Section 94.12. Uses not listed are not to be considered permitted uses unless specifically listed under subsection 1 of this section or issued a permit under Section 94.12:

- A. Underground storage tanks of any size;
- B. Private sewage systems;
- C. Agricultural activities;
- D. Septage and/or sludge spreading;
- E. Animal waste landspreading;
- F. Animal waste facilities;
- G. Animal confinement facilities;
- H. Gas stations;
- I. Pesticide, herbicide or fertilizer use, storage, mixing, handling or manufacturing facilities (excluding residential uses consistent with labeled quantities);
- J. Asphalt products manufacturing;
- K. Dry cleaning facilities;
- L. Electroplating facilities.

4. Discharge of Hazardous Substances Prohibited. No person shall discharge or cause or permit the discharge of a hazardous substance, in excess of labeled quantities, to the soils, groundwater or surface water within the secondary protection zone (Zone B). Any person knowing or having evidence of a discharge shall report such information to the wellhead protection officer.

**94.09 EXEMPT ACTIVITIES.** The following activities or uses are exempt from the provisions of this chapter:

- 1. The transportation of any hazardous substance through the well field protection zones, provided the transporting vehicle is in transit;

2. Silviculture uses and mosquito-control spraying, providing that such uses shall comply with the Iowa Commercial and Public Pesticide Applicators and Dealers Licensing through the Iowa Department of Agriculture. The use and storage of herbicides and pesticides for silviculture uses is prohibited within the primary protection zone (Zone A), but is allowed within the secondary protection zone (Zone B);
3. The use of any hazardous substance solely as fuel in a vehicle fuel tank or as lubricant in a vehicle;
4. Fire, police, emergency medical services, emergency management center facilities or public utility transmission facilities;
5. Retail sales establishments that store and handle hazardous substances for resale in their original unopened containers;
6. Consumer products limited to use at a facility solely for janitorial or minor maintenance purposes;
7. Consumer products located in the home which are used for personal, family or household purposes;
8. The storage and use of hazardous substances as a fuel or lubricant to provide auxiliary power for emergency use to the well field, provided an enclosed secondary containment system is provided for the hazardous substance;
9. The use of water treatment chemicals connected with the operation of the well.

**94.10 EXISTING USES.** The use of structures or facilities existing at the time of the adoption of the ordinance codified in this chapter may be continued even though such use may not conform with the regulations of this chapter. However, such structure or facility may not be enlarged, extended, reconstructed or substituted subsequent to adoption of said ordinance unless an exemption is granted by the City Council.

**94.11 ACTIVITIES RELATING TO TOXIC AND HAZARDOUS SUBSTANCES.** Any person who engages in nonresidential activities relating to the storage, handling, use and/or production of any toxic or hazardous substances who is exempt from this chapter by law shall not be subject to the restrictions contained herein.

**94.12 PERMIT PROCEDURES.** All written requests for permits allowed under subsections (2) and (3) of Sections 94.07 and 94.08 of this chapter will be made in writing to the City Council. Any permits granted will be made conditional and may include environmental and safety monitoring and/or a bond posted for future monitoring and cleanup costs. The permit will be made void if environmental and/or safety monitoring indicate the facility is emitting any releases of harmful contaminants to the surrounding environment. The facility will be held financially responsible for all environmental cleanup costs as under Section 36.04 of this Code of Ordinances. The construction of new structures or the structural modification or expansion of existing structures within the primary protection zone (Zone A) requires Council approval conditional upon the City Engineer's approval of the site plan. Site plan review costs will be the responsibility of the owner.

**94.13 WELLHEAD PROTECTION OFFICER DESIGNATED.** The Water and Sewer Supervisor is designated as the wellhead protection officer unless another person is specifically designated by the Council to supervise the implementation and enforcement of this chapter.

**94.14 INSPECTIONS.**

1. The wellhead protection officer or inspector shall have the power and authority to enter and inspect all buildings, structures and land field zones of influence for the purpose of making an inspection. Failure of a person having common authority over a property to permit an inspection shall be sufficient grounds and probable cause for a court of competent jurisdiction to issue a search warrant to the protection officer to inspect such premises.

2. In the event a building or structure appears to be vacant or abandoned, and the owner cannot be readily contacted in order to obtain consent for an inspection, the officer or inspector may enter into or upon any open or unsecured portion of the premises in order to conduct an inspection thereof.

3. The wellhead protection officer or inspector may inspect each well field annually and shall maintain an inventory, if applicable, of all hazardous substances which exist in each well field zone. An emergency plan shall be prepared and filed with the County Emergency Management Agency indicating the procedures which will be followed in the event of spillage of a regulated substance so as to control and collect all such spilled materials.

4. It shall be the duty of all law enforcement officers to assist in making inspection when such assistance is requested by the officer or inspector.

**94.15 TRANSFER OF PROPERTY.** The City requires that all abandoned wells and cisterns be properly sealed prior to finalization of property sales or transfers within the corporate limits of the City.

**94.16 BUILDING PERMIT ISSUANCE.** No building permits shall be issued which are a violation of this chapter or a source of contamination for a City well, and no commercial or industrial building permits shall be issued which are a violation of the Iowa DNR Separation Distances From Wells.

**94.17 UNDERGROUND TANK RESTRICTIONS.** No new underground tanks will be allowed for auxiliary fuel storage in the primary or secondary zones.

**94.18 CITY ACTION FOR INJUNCTIVE RELIEF.** If any person who engages in nonresidential activities stores, handles, uses and/or produces toxic substances within the wellhead protection zones as indicated on the wellhead protection zone maps, continues to operate in violation of the provisions of this chapter, then the City may file an action for injunctive relief in the court of jurisdiction.

**94.19 NOTICE OF VIOLATION.** Whenever an officer or an inspector determines that there is a violation of this chapter, said officer or inspector shall give notice thereof, which notice shall:

1. Be in writing;

2. Be dated and signed by the officer or inspector;
3. Specify the violation or violations;
4. State that the violation(s) shall be corrected within a specified period of time as issued in writing by the inspector.

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