

Chapter 108-18 Drinking Water Source Protection

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Sec 108-18-1 Purpose And Intent

The purpose of this chapter is to ensure the provision of a safe and sanitary drinking water supply to the residents of the city who receive water for culinary and domestic use from public water systems in the city by the establishment of drinking water source protection zones surrounding the wellheads and springs for all wells and springs used by public water systems in the city and by the designation and regulation of property uses and conditions that may be maintained within such zones.

Sec 108-18-2 Definitions

The following words, terms and phrases, when used in this chapter, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

Best management practices means a practice or combination of practices determined to be the most effective practicable means of conducting a land use activity to minimize the potential for becoming a pollution source (including technological, economic, and institutional considerations).

Design standard means established state or national standards for the design, construction, placement, or maintenance of a potential contamination source to prevent discharges to the groundwater. (See also Secondary containment.) A control that is implemented by a potential contamination source to prevent discharges to the groundwater. Spill protection is an example of a design standard.

Drinking water source protection (DWSP) zone means the surface and subsurface area surrounding a groundwater source of drinking water supplying a public water system through which contaminants are reasonably likely to move toward and reach such groundwater source.

Groundwater source means any well, spring, tunnel, adit, or other underground opening from or through which groundwater flows or is pumped from subsurface water-bearing formations.

Pollution source means point source discharges of CERCLA (**Comprehensive Environmental Response, Compensation, and Liability Act**) hazardous substances to groundwater or potential discharges of the liquid forms of "extremely hazardous substances" which are stored in containers in excess of "applicable threshold planning quantities" as specified in SARA Title III. Examples of possible pollution

sources include, but are not limited to the following: storage facilities that store the liquid forms of extremely hazardous substances, septic tanks, drain fields, class V underground injection wells, landfills, open dumps, landfilling of sludge and septage, manure piles, salt piles, pit privies, drain lines, and animal feeding operations with more than ten animal units. The following definitions clarify the meaning of the term "pollution source:"

Animal feeding operation means a lot or facility where the following conditions are met: animals have been or will be stabled or confined and fed or maintained for a total of 45 days or more in any 12-month period, and crops, vegetation forage growth, or post-harvest residues are not sustained in the normal growing season over any portion of the lot or facility. Two or more animal feeding operations under common ownership are considered to be a single feeding operation if they adjoin each other, if they use a common area, or if they use a common system for the disposal of wastes.

Animal unit means a unit of measurement for any animal feeding operation calculated by adding the following numbers; the number of slaughter and feeder cattle multiplied by 1.0, plus the number of mature dairy cattle multiplied by 1.4, plus the number of swine weighing over 55 pounds multiplied by 0.4, plus the number of sheep multiplied by 0.1, plus the number of horses multiplied by 2.0.

Extremely hazardous substances means those substances which are identified in the Sec. 302(EHS) column of the "Title III List of Lists - Consolidated List of Chemicals Subject to Reporting Under SARA Title III," (EPA 560/4-91-011). A copy of this document may be obtained from: Section 313 Document Distribution Center, P.O. Box 12505, Cincinnati, OH 41212.

Hazardous waste as defined in 40 CFR Part 61, waste with properties that make it dangerous or capable of having a harmful effect on human health or the environment. Hazardous waste is generated from many sources, ranging from industrial manufacturing process wastes to batteries and may come in many forms, including liquids, solids gases, and sludges.

Potential contamination source means any facility or site, which employs an activity or procedure, which may potentially contaminate groundwater. A pollution source is also a potential contamination source. Such term includes collection, treatment, storage and distribution facilities under control of the operator and used primarily in connection with the system. Additionally, the term "potential contamination source" includes collection, pretreatment or storage facilities used primarily in connection with the system, but not under such control.

Sanitary landfill means a disposal site where solid wastes, including putrescible wastes, or hazardous wastes, are disposed of on land by placing earth cover thereon.

Sanitary sewer line means a pipeline that connects a residence or other building with a sanitary sewer.

Septic tank/drain field system means a system which is comprised of a septic tank and a drain field which accepts domestic wastewater from buildings or facilities for subsurface treatment and disposal. By their design, septic tank/drain field system discharges cannot be controlled with design standards.

Source protection zone means the specified surface and subsurface area surrounding a groundwater source of drinking water supplying a public water supply, through which contaminants are reasonably likely to move toward and reach such groundwater source. These zones shall have the approval of the state division

of drinking water as described in R309-600 Source Protection Drinking Water Source Protection for Ground-Water Sources and as stated in section 108-18-3.

Spring means the ground surface outlet of a natural underground spring, including Spring collection and control boxes, valves, piping and other attachments.

Stormwater infiltration structure means a structure that is intended to discharge stormwater so that it infiltrates groundwater.

SARA Title III means the Superfund Amendment and Reauthorization Act section found in 40 CFR 300-302, pertaining to emergency response and right-to-know.

Time of travel distance means the distance that groundwater will travel in a specified time. This distance is generally a function of the permeability and slope of the aquifer. Time of travel is determined from hydrological studies and is approved by the state department of environmental quality, division of drinking water.

Underground storage tanks means underground tanks used for the storage of gas, oil, or other hazardous substances.

Wellhead means the physical structure, facility, or device at the land surface from or through which groundwater flows or is pumped from subsurface, water-bearing formations.

Public water system means a system, either publicly or privately owned, providing water for human consumption and other domestic uses, which:

Has at least 15 service connections; or

Serves an average of at least 25 individuals daily at least 60 days out of the year.

Secondary containment means a type of system that is used to provide release detection prevention, such as trays under containers, floor curbing or other systems designed to hold materials or liquids that may discharge from containers holding regulated substances. Examples include a double-walled tank, a double-walled integral piping system, or a single-walled tank or integral piping system that is protected by an enclosed concrete vault, liner, or an impervious containment area.

Sec 108-18-3 Establishment Of Drinking Water Source Protection Zones

There are hereby established use districts to be known as Zones One, Two, Three, and Four, of the drinking water source protection area, or alternatively the management area. These zones shall have the approval of the state division of drinking water as described in R309-600 Source Protection: Drinking Water Source Protection for Ground-Water Sources and are identified and described as follows:

Zone One is the area within a 100-foot radius from the wellhead or margin of the collection area.

Zone Two is the area within a 250-day groundwater time of travel to the wellhead or margin of the collection area, the boundary of the aquifer which supplies water to the groundwater source, or the groundwater divide, whichever is closer.

Zone Three is the area within a three-year groundwater time of travel to the wellhead or margin of the collection area, the boundary of the aquifer which supplies water to the groundwater source, or the groundwater divide, whichever is closer.

Zone Four is the area within a 15-year groundwater time of travel to the wellhead or margin of the collection area, the boundary of the aquifer which supplies water to the groundwater source, or the groundwater divide, whichever is closer.

Management area means the area outside of Zone One and within a two-mile radius where the optional two-mile radius delineation procedure has been used to identify a protection area, as described in the state division of drinking water R309-600 Source Protection: Drinking Water Source Protection for Ground-Water Sources. This area shall be treated as for Zone Two.

In some cases, such as bedrock areas, Zones Two, Three, and Four are overlapping due to the inability to determine time of travel. These are sensitive areas. In these cases, the zone should be protected as for Zone Two.

Sec 108-18-4 Identification Of Public Water Systems And Their Drinking Water Source Protection Zones

After a public water system in the city submits its drinking water source protection plan to the state division of drinking water, pursuant to the division's drinking water source protection regulations, as amended, and the division provides written notice to the public water system of its approval of the plan, the public water system shall, at its sole cost and expense, provide the city building division, city planning division, city health department and surveyor's office with a map, and additional information required by the office, identifying the four drinking water source protection zones the public water system designates for each of its sources of groundwater for drinking water in the plan approved by the division.

The city planning division shall then incorporate this information on a map of the city that it shall prepare and maintain, which identifies each public water system's sources of groundwater for drinking water and the four drinking water source protection zones for each source of groundwater. It shall be the duty of each public water system, at its sole cost and expense, to submit any updated information as necessary to the city planning division and the city health department.

Sec 108-18-5 Allowed Uses

In Zones One, Two, Three, and Four, each use established before the effective date of the ordinance from which this chapter is derived, and uses incidental and accessory to such use, may be continued in the same manner thereafter, provided that such use is not determined by any court of competent jurisdiction to be a nuisance under the provisions of federal, state, and/or local laws or regulations. In addition to the uses permitted under subsection (a) of this section, the following uses, including uses incidental and accessory to that use, shall be allowed within the respective drinking water source protection zones:

Zone One. No uses in addition to that allowed under subsection (a) of this section are allowed in Zone One.

Zone Two. Use of single- or multiple-family residential dwellings, commercial, or institutional uses established on or after the effective date of the ordinance from which this chapter is derived, provided that such uses are connected to a sanitary sewer system.

Zone Three. Use of single- or multiple-family residential dwellings, commercial, or institutional uses established on or after the effective date of the ordinance from which this chapter is derived.

Zone Four.

Use of single- or multiple-family residential dwellings, commercial, or institutional uses established on or after the effective date of the ordinance from which this chapter is derived.

The tilling of the soil and the raising of crops provided that the use of fertilizers and pesticides is accomplished within applicable federal, state, and/or local requirements.

The pasturing of livestock provided all forage is raised on the pastured area.

In addition to the permitted uses specified in subsections (a) and (b) of this section, certain of the uses prohibited in Zones Two, Three, and Four pursuant to section 108-569 may be allowed in Zones Two, Three, and Four, respectively, if design standards are implemented for the specific use that will prevent contaminated discharges to groundwater.

Sec 108-18-6 Prohibited Uses

Subject to section 108-18-5, the following uses are prohibited within the following drinking water source protection zones:

Zone One. All uses that fall within the definition in this chapter of "pollution source" or "potential contamination source," including the following, are prohibited in Zone One:

Surface use, storage, or dumping of hazardous waste or material, expressly including industrial or commercial uses of agricultural pesticides (except when such pesticides are used in farming applications within strict compliance of the manufacturer's recommendations of use, subject to inspection by local officials).

Sanitary landfills.

Hazardous waste or material disposal sites.

Septic tanks/drain field systems.

Sanitary sewer lines within 150 feet of a wellhead or spring collection area.

Underground storage tanks.

Stormwater infiltration structures.

Any pollution source as defined herein or in Rule 309-113-101, as amended, of the division of drinking water's drinking water source protection regulations.

Agriculture industries including, but not limited to, intensive feeding operations such as feedlots, dairies, fur breeding operations, poultry farms, etc.

Zone Two.

Surface use, storage, or dumping of hazardous waste or material, expressly including industrial or commercial uses of agricultural pesticides (except when such pesticides are used in farming applications within strict compliance of the manufacturer's recommendations of use, subject to inspection by local officials).

Sanitary landfills.

Hazardous waste or material disposal sites.

Septic tanks/drain field systems.

Sanitary sewer lines within 150 feet of a wellhead or spring collection area.

Underground storage tanks.

Stormwater infiltration structures.

Any pollution source as defined herein or in Rule 309-113-101, as amended, of the division of drinking water's drinking water source protection regulations.

Agriculture industries including, but not limited to, intensive feeding operations such as feedlots, dairies, fur breeding operations, poultry farms, etc.

Zone Three.

Surface use, storage, or dumping of hazardous waste or material, expressly including industrial or commercial uses of agricultural pesticides (except when such pesticides are used in farming applications within strict compliance of the manufacturer's recommendations of use, subject to inspection by local officials).

Sanitary landfills.

Hazardous waste or material disposal sites.

Agriculture industries including, but not limited to, intensive feeding operation such as feedlots, dairies, fur breeding operations, poultry farms, etc.

Zone Four.

Surface use, storage, or dumping of hazardous waste or material, expressly including industrial or commercial uses of agricultural pesticides (except when such pesticides are used in farming applications within strict compliance of the manufacturer's recommendations of use, subject to inspection by local officials).

Sanitary landfills.

Hazardous waste or material disposal sites.

Sec 108-18-7 Sewers Within Drinking Water Source Protection Zones And Management Areas

Sanitary sewer lines may not be located within Zones One and Two or a management area unless the criteria identified below is met. If sewer lines are located or planned to be located within Zones One and Two or a management area, the developer must submit a preliminary evaluation report demonstrating that they comply with this criteria. Sewer lines that comply with these criteria may be assessed as adequately controlled potential contamination sources.

Zones One and Two. If the conditions specified in subsections (a)(1) and (2) of this section are met, all sewer lines within Zones One and Two shall be constructed in accordance with state requirement and must be at least ten feet from the wellhead.

There is at least five feet of suitable soil between the bottom of the sewer lines and the top of the maximum seasonal groundwater table or perched water table. (Suitable soils contain

adequate sand/silt/clay to act as an effective effluent filter within its depth for the removal of pathogenic organisms and fill the voids between coarse particles such as gravel, cobbles, and angular rock fragments); and

There is at least five feet of suitable soil between the bottom of the sewer line and the top of any bedrock formations or other unsuitable soils. Bedrock formations include formations that have such a low permeability that they prevent the downward passage of effluent. Bedrock formations that have open joints or solution channels, which permit such rapid flow that effluent is not renovated, are also considered unacceptable. Other unsuitable soils include those with coarse particles such as gravel, cobbles, or angular rock fragments with insufficient soil to fill the voids between the particles. Solid or fractured bedrock such as shale, sandstone, limestone, basalt, or granite are unacceptable.

Zones One and Two. If the conditions identified in R309-600-13(3)(a)(i) and (ii) cannot be met, any sewer lines within Zones One and Two or a management area shall be constructed in accordance with R309-515-6(4) and must be at least 300 feet from the wellhead or margin of the collection area.

Sec 108-18-8 Drinking Water Source Protection Requirements

Except as provided in this section, following the effective date of the ordinance from which this chapter is derived, no building permit or other form of approval from the city to develop or use real property within the city shall be issued until the applicant establishes that its proposed development or use of real property complies with the requirements of this chapter.

Sec 108-18-9 Transition

Until such time that a public water system submits its drinking water source protection plan to the state division of drinking water, the division provides written notice to the public water system of its approval of the plan, and the public water system provides the city building division, Weber Morgan Health Department, city planning division and surveyor's office with a map and any additional information required by the office identifying the public water system's sources of groundwater for drinking water and the four drinking water source protection zones for each of the sources, no building permit or other form of approval from the city to develop or use real property within the city shall be issued unless the applicant establishes that its proposed development or use of real property complies, with the source protection plan.

After a public water system submits its drinking water source protection plan to the state division of drinking water, the division provides written notice to the public water system of its approval of the plan, and the public water system provides the city building division, city health department, city planning division and surveyor's department with a map and any additional information required by the office identifying the public water system's sources of groundwater for drinking water and the four drinking water source protection zones for each of the sources, no building permit or other form of approval from the city to develop or use real property within the city shall

be issued unless the applicant establishes that its proposed development or use of real property complies with the requirements of this chapter.

Sec 108-18-10 Administration

The policies and procedures for administration of any source protection zone established under this chapter, including without limitation those applicable to existing nonconforming uses, enforcement and penalties, shall be the same as provided in the existing Land Use Code, as presently enacted, except that the city appeal authority may grant a variance. The technical committee consists of a member from the city building division, city engineering, and the Weber Morgan Health Department. The city planning division shall provide support to the technical committee. If it is necessary to have additional expertise evaluate the variance, it shall be at the expense of the entity requesting the variance. The recommendation relative to the requested variance shall be documented and filed with the city planning department, and a copy returned to the requester.

The policies and procedures or administration of any drinking water source protection established under this chapter authorize a retail water supplier or wholesale water supplier to seek enforcement of the ordinance in a district court located within the city as permitted by U.C.A. 1953, § 19-4-113, or as subsequently amended. This chapter shall take effect 15 days after its adoption and first publication.