

Chapter 31

Wellhead Protection Ordinance

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Effective: 4-26-94

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31.1 TITLE OF CHAPTER

This Chapter shall be known, cited and referred to as the “Wellhead Protection (WHP) Ordinance.”

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31.2 PURPOSE AND AUTHORITY

The residents of the Village of Amherst depend exclusively on groundwater for a safe drinking water supply. Certain land use practices and activities can seriously threaten or degrade groundwater quality. The purpose of this Wellhead Protection Ordinance is to institute land use regulations and restrictions to protect the Village’s municipal water supply and well fields, and to promote the public health, safety and general welfare of the residents of the Village of Amherst.

Statutory authority of the Village to enact these regulations was established by the Wisconsin Legislature in 1983, Wisconsin Act 410 (effective May 1, 1984), which specifically added groundwater protection to the statutory authorization for municipal planning and zoning to protect public health, safety and welfare.

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31.3 APPLICATION OF REGULATIONS

The regulations specified in this Wellhead Protection Ordinance shall apply to all lands that lie within the ten year time of travel (TOT) of each of the Amherst municipal wells, and are within the Village of Amherst corporate limits.

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31.4 DEFINITIONS

A. Aquifer: A saturated, permeable geologic formation that contains and will yield significant quantities of water.

B. Agricultural Activities: Agricultural activities include pesticide and/or fertilizer storage and use, septage and/or sludge spreading, animal waste facilities and animal confinement facilities.

C. Cone of Depression: The cone-shaped area around a well, in which the water level has been lowered 0.1 of a foot by pumping of the well. To protect the entire Village of Amherst well field, the

Cone of Depression is within Zone A and has been established as shown on the attached map prepared by SEC Donahue dated August, 1992.

D. One Year Time of Travel (TOT) - The One Year TOT is the outer boundary of which it is determined or established that groundwater and potential contaminants will take one year to reach a pumping well(s). The boundary for the one year TOT for the Village of Amherst is established as Zone A and as shown on the attached map prepared by SEC Donahue dated August, 1992.

E. Five Year Time of Travel (TOT) - The Five Year TOT is the recharge area up gradient of the cone of depression, the outer boundary of which it is determined or estimated that groundwater and potential contaminants will take five years to reach a pumping well(s). The boundary for the Five Year TOT for the Village of Amherst wells is established as Zone B and as shown on the attached map prepared by SEC Donahue dated August, 1992.

F. Ten Year Time of Travel (TOT) - The Ten Year TOT is the recharge area up gradient of the Five Year TOT, the outer boundary of which it is determined or established that groundwater and potential contaminants will take ten years to reach a pumping well(s). The boundary for the Ten Year TOT for the Village of Amherst is established as Zone C and as shown on the attached map prepared by SEC Donahue dated August, 1992.

G. Recharge Area - Area in which water reaches the zone of saturation by surface infiltration and encompasses all areas or features that supply groundwater recharge to a well.

H. Well Field - A piece of land used primarily for the purpose of locating wells to supply a municipal water system.

I. Hazardous Substance - Means any substance or combination of substances including any waste of a solid, semisolid, liquid or gaseous form which may cause or significantly contribute to an increase in mortality or an increase in serious irreversible or incapacitating reversible illness or which may pose a substantial present or potential hazard to human health or the environment because of its quantity, concentration or physical, chemical or infectious characteristic. This term includes, but is not limited to, substances which are toxic, corrosive, flammable, irritants, strong sensitizers or explosives as determined by the Village of Amherst.

J. Modified Agricultural Activities - Modified Agricultural Activities include hay fields, pastures, animal waste spreading, or cropping. These uses shall be approved from a plan submitted by the landowner or tenant which has been reviewed and accepted by the Village of Amherst.

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31.5 GROUNDWATER PROTECTION ZONE A - ONE YEAR TIME OF TRAVEL

A. Intent: The primary area of the recharge area to be protected is known as Zone A as shown on the attached map. These lands are subject to the most stringent land use and development restrictions because of their close proximity to the well field and the corresponding high threat of contamination.

B. Permitted Uses: The following uses are permitted uses within Groundwater Protection Zone A. Uses not listed as permitted uses or as conditional uses are to be considered prohibited uses.
(1) Parks and Playgrounds, provided there is no on-site hazardous substance disposal or fuel storage tank facilities.

- (2) Wildlife areas.
- (3) Non-motorized trails, such as biking, skiing, nature and fitness trails.
- (4) Sewered residential developments.
- (5) Modified Agricultural Activities.

C. Performance Standards: The following standards and requirements shall apply to all uses permitted within Groundwater Protection Zone A.

- (1) Notwithstanding any other provision of this ordinance, the terms of the Agreement between the Village of Amherst and Mary Ellen Koch, Patricia Anne Duerson, Judith Rose Bergquist and Genevieve Alvina Moussa dated January 26, 1993 shall be exempt from the requirements and/or restrictions unless mutually agreed in writing between the parties or their successors in interest.
- (2) Prior to December 31, 1998, all underground petroleum product storage tanks may be upgraded in the following manner:
 - (a) Underground petroleum product storage tanks shall be double walled
 - (b) Piping shall be double walled and flexible.

If the underground storage petroleum product storage tanks are not upgraded in the manner prescribed herein, they shall be upgraded in the manner prescribed in paragraph (C)(3)

- (3) After December 31, 1998, underground petroleum product storage tanks shall be removed at the time of their upgrade. Underground petroleum product storage tanks shall be substituted with other tanks and placed above ground subject to the following:
 - (a) The tanks shall be double walled, bullet proof and provide leak proof containment and
 - (b) Flexible double walled piping and
 - (c) A barricade placed at the receiving station and
 - (d) Fenced

In addition to the requirements contained in paragraphs (C)(2) and (3), the Village reserves the right to impose such other requirements as the Village Plan Commission and Village Board may require.

- (4) The outside storage of any hazardous substance shall be prohibited in Groundwater Protection Zone A.

D. Conditional Uses: Commercial uses served by municipal sanitary sewer are conditional uses within Groundwater Protection Zone A. Uses not as conditional uses or permitted uses above are to be considered prohibited uses.

E. Prohibited Uses: The following uses are prohibited uses within the Groundwater Protection Zone A. These uses are prohibited based on the high probability that activities routinely associated with these uses (storage, use, and handling of potential pollutants) will cause groundwater contamination. Uses not listed are not considered permitted uses.

- (1) Underground storage tanks of any size
- (2) Private wells
- (3) Unsewered residential developments
- (4) Basement storage tanks
- (5) Septage and/or sludge spreading
- (6) Bulk petroleum facility
- (7) Animal waste facilities
- (8) Animal confinement facilities
- (9) Gas stations
- (10) Vehicle repair establishments, including auto body repair

- (11) Printing and duplicating businesses
- (12) Any manufacturing or industrial businesses
- (13) Bus or truck terminals
- (14) Repair shops
- (15) Landfills or waste disposal facilities
- (16) Wastewater treatment facilities
- (17) Spray wastewater facilities
- (18) Junk yards or auto salvage yards
- (19) Bulk fertilizers and/or pesticide facilities
- (20) Asphalt products manufacturing
- (21) Dry cleaning businesses
- (22) Salt storage
- (23) Electroplating facilities
- (24) Exterminating businesses
- (25) Paint and coating manufacturing
- (26) Hazardous substance storage
- (27) Hazardous substance facilities
- (28) Radioactive waste facilities and storage
- (29) Recycling facilities
- (30) Cemeteries

Where any of the uses listed in (E) above exists within Groundwater Protection Zone A on the effective date of this ordinance, owners of these facilities will be allowed to upgrade the facilities to facilitate or enhance groundwater protection. Plans for the proposed upgrade must be approved by the Plan Commission and Village Board.

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31.6 GROUNDWATER PROTECTION ZONE B - 5 YEAR TIME OF TRAVEL

A. Intent: The secondary area of the recharge area to be protected lies within the five year groundwater travel zone up gradient from the municipal wells. The Five Year Time of Travel (TOT) for the Amherst wells is established as shown on the attached map. Land use restrictions within Groundwater Protection Zone B are less restrictive than in Zone A because of longer flow times and a greater opportunity for remediation, dilution and attenuation.

B. Permitted Uses: The following uses are permitted within Groundwater Protection Zone B. Uses not listed as permitted uses or as conditional uses are to be considered prohibited uses.

- (1) All uses listed as permitted uses in Groundwater Protection Zone A.
- (2) Sewered commercial and/or industrial manufacturing uses, except those listed as prohibited uses in Section 31.6 E Prohibited Uses.

C. Performance Standards: The following standards and requirements shall apply to all uses permitted within Groundwater Protection Zone B.

- (1) All above ground petroleum product storage tanks and underground petroleum product storage tanks shall be upgraded in the following manner:
 - a. All underground petroleum product storage tanks shall be removed and replaced ; and;
 - b. All petroleum product storage tanks shall be placed above ground; and
 - c. Petroleum product storage tanks shall be double walled, bullet proof and provide leak proof containment; and

- d. A barricade shall be placed at the petroleum product receiving station; and
- e. The area containing petroleum product storage tanks shall be fenced; and
- f. All piping shall be flexible and double-walled.

In addition to the requirements contained in this paragraph, the Village reserves the right to impose such other requirements as the Plan Commission and Village Board deems necessary.

- (2) The outside storage of any hazardous substance shall be prohibited in Groundwater Protection Zone B.

D. Conditional Uses: The following uses are conditional uses within the Groundwater Protection Zone B.

- (1) Bus or truck terminals
- (2) Repair shops
- (3) Animal confinement facilities
- (4) Tire and battery services
- (5) Garage and vehicular towing
- (6) Recycling facilities

E. Prohibited Uses: The following uses are prohibited uses within Groundwater Protection Zone B. Uses not listed are not considered permitted uses unless specifically listed above under Section 31.6 Permitted Uses.

- (1) Underground storage tanks of any size.
- (2) Vehicle repair establishments, including auto body repair.
- (3) Printing and duplicating businesses
- (4) Private wells
- (5) Gas stations
- (6) Landfills
- (7) Wastewater treatment facilities
- (8) Animal waste facilities
- (9) Spray wastewater facilities
- (10) Junk yards or auto salvage yards
- (11) Commercial bulk fertilizer and pesticide facilities
- (12) Asphalt products manufacturing
- (13) Dry cleaning facilities
- (14) Salt storage
- (15) Electroplating facilities
- (16) Exterminating shops
- (17) Paint and coating manufacturing
- (18) Hazardous and toxic materials storage and use
- (19) Hazardous and toxic waste facilities
- (20) Radioactive waste facilities
- (21) Public and municipal maintenance garages

Where any of the uses listed as conditional or prohibited above exist within Groundwater Protection Zone B on the effective date of this ordinance, owners of these facilities will be allowed to upgrade those components which will facilitate or enhance groundwater protection. Plans for the proposed upgrade must be approved by the Plan Commission and Village Board.

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31.7 GROUNDWATER PROTECTION ZONE C - TEN YEAR TIME OF TRAVEL

A. Intent: The third area of the recharge area to be protected lies within the ten year groundwater travel zone up gradient from the municipal wells. The Ten Year Time of Travel (TOT) for the Amherst wells is established as shown on the attached map. Land use restrictions within Groundwater Protection Zone C are less restrictive within Groundwater Protection Zone A and B because of longer flow times and a greater opportunity for remediation, dilution and attenuation.

B. Permitted Uses: The following uses are permitted within Groundwater Protection Zone C. Uses not listed as permitted uses or as conditional uses are to be considered prohibited uses.

- (1) All uses listed as permitted uses in Groundwater Protection Zone A.
- (2) All uses listed as permitted uses in Groundwater Protection Zone B.
- (3) Sewered commercial and/or industrial manufacturing uses, except those listed as prohibited uses in Section 31.6 E Prohibited Uses.

C. Performance Standards: The following standards and requirements shall apply to all uses permitted within Groundwater Protection Zone C.

- (1) All above ground petroleum product storage tanks and underground petroleum product storage tanks shall be upgraded in the following manner:
 - (a) All underground petroleum product storage tanks shall be removed and replaced; and
 - (b) All petroleum product storage tanks shall be placed above ground; and
 - (c) Petroleum product storage tanks shall be double walled, bullet proof and provide leak proof containment; and
 - (d) A barricade shall be placed at the petroleum product receiving station; and
 - (e) The area containing petroleum product storage tanks shall be fenced; and
 - (f) All piping shall be flexible and double-walled.

In addition to the requirements contained in this paragraph, the Village reserves the right to impose such other requirements as the Plan Commission and Village Board deems necessary.

- (2) The outside storage of any hazardous substance shall be prohibited in Groundwater Protection Zone C.

D. Conditional Uses: All conditional uses identified in Groundwater Protection Zone B shall be conditional uses in Groundwater Protection C. In addition to these conditional uses, the following conditional uses are conditional uses in Groundwater Protection Zone C.

- (1) Vehicle repair establishments, including auto body repair;
- (2) Printing and duplicating businesses; and
- (3) Public and municipal maintenance garages.

E. Prohibited Uses: The following uses are prohibited uses within Groundwater Protection Zone C. Uses not listed are not considered permitted uses unless specifically listed above under Section 31.7 Permitted Uses.

- (1) Underground storage tanks of any size
- (2) Private wells
- (3) Gas stations
- (4) Landfills
- (5) Wastewater treatment facilities
- (6) Animal waste facilities
- (7) Spray wastewater facilities
- (8) Junk yards or auto salvage yards
- (9) Commercial bulk fertilizers and pesticide facilities
- (10) Asphalt products manufacturing

- (11) Dry cleaning facilities
- (12) Salt storage
- (13) Electroplating facilities
- (14) Exterminating shops
- (15) Paint and coating manufacturing
- (16) Hazardous and toxic materials storage and use
- (17) Hazardous and toxic waste facilities
- (18) Radioactive waste facilities

Where any of the uses listed as conditional or prohibited above exist within Groundwater Protection Zone C on the effective date of this Ordinance, owners of these facilities will be allowed to upgrade those components which will facilitate or enhance groundwater protection. Expansion of these facilities is prohibited.

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31.8 NOTICE OF DISCHARGE OF HAZARDOUS SUBSTANCE

A. Notice of Discharge: A person who possesses or controls a hazardous substance or who causes the discharge of a hazardous substance within the Village of Amherst shall notify the Village of Amherst immediately of any discharge not exempted under sub. (B).

B. Exemptions

- (1) Any person holding a valid permit under Chapter 147 of the Wisconsin Statutes is exempt from the reporting requirements of this section with respect to substances discharged within the limits authorized by the permit.
 - (a) Notwithstanding the exemption from the notice of discharge requirements as set forth above, any person, corporation or entity who has applied for a permit under the provisions of Chapter 147 of the Wisconsin Statutes shall notify the Village of Amherst of the application and issuance of said permit.
- (2) Law enforcement officers or members of a fire department using hazardous substances in carrying out their responsibility to protect public health, safety and welfare are exempt from the penalty requirements of this section, but shall report to the Village any discharge of a hazardous substance occurring within the performance of their duties.
- (3) Any person discharging in conformity with a permit or program approved under this chapter is exempted from the reporting and penalty requirements of this section.
- (4) Any person applying a pesticide approved by any governmental agency according to the label instructions is exempted with respect to the application from the reporting and penalty requirements of this section.

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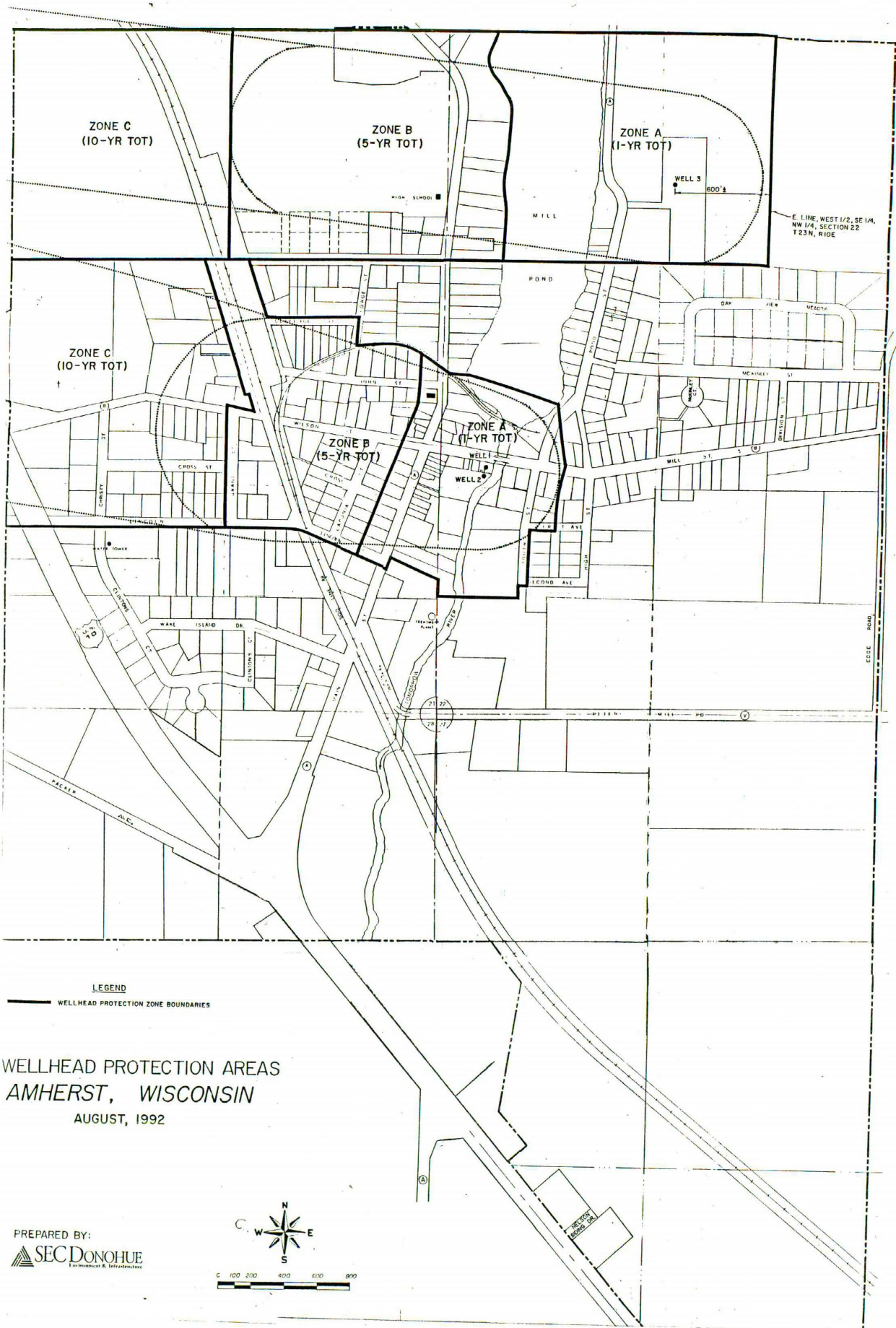
31.9 ENFORCEMENT AND PENALTIES

A. Violations: It shall be unlawful to construct or use any structure, land, or water in violation of any of the provisions of this Chapter. In case of any violation, the Village Board, or any person who would be specifically damaged by such violation, may institute appropriate action or proceedings to enjoin a violation of this Chapter.

B. Penalties: Any person, firm, or corporation who fails to comply with the provisions of this Chapter shall upon conviction thereof, forfeit not less than one hundred dollars (\$100.00) nor more than five hundred dollars (\$500.00), plus the costs of prosecution for each violation, and in default of payment

of such forfeiture and costs, shall be imprisoned in the County Jail until payment thereof, but not exceeding thirty (30) days, or in the alternative, shall have such costs added to their real property as a lien against the property. Each day a violation exists or continues shall constitute a separate offense.

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WELLHEAD PROTECTION AREAS
 AMHERST, WISCONSIN
 AUGUST, 1992

PREPARED BY:
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 Environment & Infrastructure

