

**ORDINANCE NO. -----**

**AN ORDINANCE TO AMEND  
THE LAND USE AND DEVELOPMENT CODE  
RELATING TO SOURCE WATER PROTECTION**

WHEREAS, the Commissioners of Bridgeville are desirous of revising its Land Use and Development Code to ensure the protection of the Town’s public water system; and

WHEREAS, the Commissioners of Bridgeville have the power and jurisdiction to regulate the uses of land within its corporate limits; and

WHEREAS, the Commissioners of Bridgeville are of the opinion that it promotes the health, safety, morale, convenience, order, prosperity, and welfare of the present and future inhabitants of the Town of Bridgeville by revising its Land Use and Development Code to ensure the protection of the Town’s public water system;

**NOW, THEREFORE, BE IT ORDAINED AND ENACTED BY THE  
COMMISSIONERS OF BRIDGEVILLE OF THE TOWN OF BRIDGEVILLE:**

Section 1. Amend Chapter 234 “LAND USE AND DEVELOPMENT”, Article XVI, Sensitive Areas, by adding thereto by deleting §234-72, Water Resources Protection, in its entirety and inserting in lieu thereof the following text:

**Section 234-72 – Source Water Protection**

**A. Purpose**

The purpose of the Source Water Protection Ordinance is to ensure the protection of the Town of Bridgeville’s public drinking water supply from contamination. The Town herein adopts the overlay maps delineating, as source water protection areas: wellhead protection and areas of excellent ground-water recharge potential.

To ensure the protection of these drinking water supplies, this ordinance establishes a zoning overlay as required by Delaware Code Title 7, Subchapter VI, § 6082 (“Source

Water Protection”) to be known as the Source Water Protection District (“District”). The purpose of the Source Water Protection District is to protect public health and safety by minimizing contamination of aquifers, preserving, and protecting existing and potential sources of drinking water supplies. It is the intent to accomplish this through both public education and public cooperation, as well as by creating appropriate land use regulations that may be imposed in addition to those currently imposed by existing zoning districts or other state and county regulations.

It shall apply to all new construction, redevelopment, or expansion of existing buildings and new or expanded uses, with exceptions noted in Sections G, I, J and K. Applicable activities/uses allowed in a portion of one of the underlying zoning districts that fall within the Source Water Protection District must additionally comply with the requirements of this District. Uses prohibited in the underlying zoning districts shall not be permitted in the Source Water Protection District.

## **B. Definitions**

This section defines words, terms, and phrases found in this article.

**Aboveground Storage Tank (AST):** An AST is a single containment vessel greater than 250 gallons as defined in the Delaware Regulations Governing Aboveground Storage Tanks, dated February 11, 2005 or as later revised. ASTs with a storage capacity greater than 12, 499 gallons containing petroleum or hazardous substances, and ASTs with a storage capacity greater than 39,999 gallons containing diesel, heating fuel or kerosene are subject to the design, construction, operation, and maintenance requirements of the Delaware AST regulations.

**Applicant:** A person, firm, or government agency that executes the necessary forms to obtain approval or a permit for any zoning, subdivision, land development, building, land disturbance, or other activity regulated.

**Aquifer:** A geological formation, group of formations or part of a formation composed of rock, sand, or gravel capable of storing and yielding groundwater to wells.

**CERCLA Hazardous Substances** are defined in terms of either those substances specifically designated as hazardous under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), otherwise known as the Superfund law, or those substances identified under other laws. In all, the Superfund law includes references to four other laws to designate more than 800 substances as hazardous, and identify many more as potentially hazardous due to their characteristics and the circumstances of their release.

**Contamination:** Any physical, chemical, biological, or radiological substance that enters the hydrological cycle through human action and may cause a deleterious effect on ground water resources; it shall include but is not limited to hazardous waste, limiting nutrients, and sanitary sewage.

**Delineation:** The process of defining and/or mapping a boundary that approximates the areas that contribute water to a particular water source used as a public water supply.

**Environmental Impact Assessment Report (EIAR):** A report required by this ordinance that assesses the environmental characteristics of a source water protection area and determines what effects or impacts will result if the area is altered or disturbed by a proposed action that would increase impervious cover beyond the recommended 20% threshold.

**Environmental Impact Assessment Report:** A report that documents how new development that will exceed 20% impervious cover within Excellent Groundwater Recharge Potential Areas and Wellhead Protection Zone 2 will augment recharge and assure water quality and quantity. *See Section H.*

**Excellent Ground-Water Recharge Potential Area:** Those areas with high percentages of sand and gravel that have "excellent" potential for recharge as determined through a Stack Unit Mapping Analysis delineated by the Delaware Geological Survey and presented in the Report of Investigations No. 66, Ground-water Recharge Potential Mapping in Kent and Sussex Counties, Delaware, Geological Survey, 2004.

**Geologist:** An individual who is registered in the State of Delaware to practice the profession of geology.

**Ground Water:** The water contained in interconnected pores located below the water table in an unconfined aquifer or located in a confined aquifer.

**Hazardous Substance UST System** means an underground storage tank system that contains a hazardous substance defined in 101(14) of the CERCLA (but not including any substance regulated as a hazardous waste under RCRA Subtitle C) or any mixture of such substances and petroleum, and which is not a petroleum UST system.

**Hazardous Waste:** A solid waste, or combination of solid wastes, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may cause or significantly contribute to an increase in mortality or an increase in serious irreversible or incapacitating irreversible, illness, or pose a substantial present or potential a hazard to human health or the environment when improperly treated, stored, transported, or dispose of, or otherwise managed. Without limitation, included within this definition are those hazardous wastes described in Sections 261.31, 261.32, and 261.33 of the Delaware Regulations Governing Hazardous Waste.

**Impervious Cover:** Surfaces providing negligible infiltration such as pavement, buildings, recreation facilities (e.g. tennis courts, swimming pools, etc.), and covered driveways.

**Infill:** The rededication of land in a built environment, usually open space, to new construction. The parcel has access to public infrastructure such as utilities and wastewater treatment.

**Non-Conforming Use** is an existing use of a lot or a building that was legal at the time of its creation that is not permitted by this chapter in the district in which it is located.

**Natural Condition:** Open space that is essentially unimproved and set aside, dedicated, designated, or reserved for public or private use.

**On-site Wastewater Treatment and Disposal System:** conventional or alternative, wastewater treatment and disposal systems installed or proposed to be installed on land of the owner or on other land to which the owner has the legal right to install the system.

**Passive Recreation** refers to recreation that involves existing natural resources and has a minimal impact because they do not require the alteration of existing topography. Such passive recreation shall include but not be limited to non-motorized vehicles, hiking, bicycling, picnicking, and bird-watching.

**Previously developed:** Areas within the Town of Bridgeville that already are platted, built out and served with public infrastructure including water, sewer and roads, including any brownfield sites or vacant lots that would provide infill opportunities for development.

**Public Water Supply Well:** Any well from which the water is used to serve a community water system by section 22.146 (Public Water Systems) in the Delaware State Regulations Governing Public Drinking Water Systems.

**Public Drinking Water System:** A community, non-community, or non-transient non-community water system, which provides piped water to the public for human

consumption. The system must have at least 15 service connections or regularly serve at least 25 individuals daily for at least 60 days.

**Redevelopment:** Any proposed expansion, addition, or major facade change to an existing building, structure, or parking facility.

**Runoff:** That portion of precipitation or snow melt that has not evaporated or infiltrated into the soil, but flows on land or impervious surfaces.

**Sanitary Landfill:** A land site at which solid waste is deposited on or into the land as fill for the purpose of permanent disposal, except that it will not include any facility that has been approved for the disposal of hazardous waste under the Delaware Regulations Governing Hazardous Waste.

**Site plan approval:** A process for the review and approval of a development plan prior to the issuance of a development.

**Source Water:** refers to any aquifer from which water is drawn either periodically or continuously by a public water system.

**Source Water Assessment Area:** The area delineated by DNREC Source Water Assessment and Protection Program that contributes water to a public water supply system.

**Source Water Assessment Plan:** The October 1999 U.S. EPA approved plan for evaluating the sources of public drinking water in Delaware for their vulnerability and susceptibility to contamination.

**Source Water Assessment Report (SWAP):** The identification and evaluation of the sources of water within the state used by public water systems in an effort to determine the vulnerability and susceptibility to contamination.

**Stormwater:** The runoff of water from the surface of the land resulting from precipitation or snow or ice melts.

**Stormwater Management:**

- a. for water quantity control, a system of vegetative, structural, and other measures that may control the volume and rate of stormwater runoff which may be caused by land disturbing activities or activities upon the land; and
- b. for water quality control, a system of vegetative, structural, and other measures that control adverse effects on water quality that may be caused by land disturbing activities or activities upon the land.

**Source Water Protection Area:** Wellhead Protection Areas, Good and Excellent Ground Water Recharge Potential Areas

**Vacant Property:** Lands or buildings that are not actively used for any purpose as designated in the underlying zoning district/overlay for one year.

**Underground Storage Tank (UST):** An UST is one or a combination of Tanks including underground Pipes, the volume of which is 10% or more belowground, as defined in the Delaware Regulations Governing Underground Storage Tank Systems, dated June 11, 2010 or as later revised.

The following USTs are not subject to the design, construction, operation, and maintenance requirements of the Delaware UST Regulations: Residential Heating Fuel, Agricultural, and Residential Motor Fuel USTs less than 1,100 gallons and any UST less than 110 gallons.

**Wastewater:** Water-carried waste from septic tanks, water closets, residences, building, industrial establishments, or other places, together with such groundwater infiltration, subsurface water, and mixtures of industrial wastes or other wastes as may be present.

**Water Quality:** Those characteristics of stormwater runoff from an impervious surface or a land disturbing activity that relate to the chemical, physical, biological, or radiological integrity of water.

**Water Quantity:**

- a. Those characteristics of stormwater runoff that relate to the volume of stormwater runoff to downstream-gradient areas resulting from land disturbing activities.
- b. Those characteristics of stormwater that relate to the volume of stormwater that infiltrates the land surface and enters the underlying aquifer.

**Wellhead:** The upper terminal of a well, including adapters, ports, seals, valves, and other attachments

**Wellhead Protection Areas (WHPA):** Surface and subsurface areas surrounding public water supply wells or well fields where the quantity or quality of ground water moving toward the wells or well fields may be adversely affected by land use activity.

**Wellhead Protection Plan:** The March 1990 U.S. EPA approved plan for protecting the quality of drinking water derived from public water supply wells in Delaware.

**Wellhead Protection (WHP) Zone 1:** The surface area extending to a minimum one hundred and fifty (150) foot radius around the wellhead.

**Wellhead Protection (WHP) Zone 2:** The remaining surface area of the delineated wellhead protection area outside Zone 1.

**Wellhead Protection (WHP) Zone 3:** Exists where a WHP Zone 2 area overlays an Excellent ground-water recharge potential area.

**C. Source Water Protection Areas**

Source Water Protection Areas are Wellhead Protection Areas and Excellent Ground Water Recharge Potential Areas. All such areas are as depicted on Source Water Protection Area maps located in Town Hall and shall be adopted as part of the update and implementation of the 2005 Comprehensive Land Use Plan. These maps are also available in GIS overlays from Delaware Department of Natural Resources and Environmental Control, Division of Water Resources, Source Water Assessment and Protection Program.

These areas shall be managed as required by the following sections to protect public drinking water resources from activities and substances that may harm water quality and subtract from overall water quantity.

**Table 1. Land Use Restrictions and Uses in Source Water Protection Districts.** Activities shall be subject to the land-use restrictions within this ordinance that will protect the quality and quantity of ground water supplies. In addition, all uses not permitted in the underlying zone district are prohibited.

- C - Conditional
- No – Prohibited
- Yes – Allowed

LAND USE	WELLHEAD PROTECTION ZONES			AREA OF EXCELLENT GROUNDWATER RECHARGE POTENTIAL
	ZONE1	ZONE2	ZONE3	
Aboveground storage tanks	NO	YES	YES	C
Automotive body/repair shop	NO	C	C	C
Chemical processing/storage facility	NO	C	C	C
Dry cleaner	NO	NO	NO	NO
Electrical/Electronic manufacturing	NO	NO	C	C

LAND USE	WELLHEAD PROTECTION ZONES			AREA OF EXCELLENT GROUNDWATER RECHARGE POTENTIAL
	ZONE1	ZONE2	ZONE3	
facility				
Equipment maintenance/fueling areas	NO	C	C	C
Fleet/trucking/bus terminal	NO	C	C	C
Gas station	NO	C	C	C
Hazardous waste treatment, storage and disposal facilities	NO	NO	NO	NO
Dry wells/sumps	NO <sup>1</sup>	YES	YES	YES
Injection wells	NO <sup>2</sup>	YES	YES	YES
Junk/scrap/salvage yard	NO	NO	NO	NO
Land divisions resulting in high density (greater than 1 acre)	NO	C	C	C
Machine shop	NO	NO	C	C
Manure storage	NO	NO	NO	NO
Metal plating/finishing/fabricating facility	NO	NO	C	C
Mines/gravel pit	NO	NO	NO	NO
On-site wastewater treatment and disposal system	NO	NO	C	C
Sanitary and industrial landfills	NO	NO	NO	NO
Underground storage tanks	NO	C	C	C
Vessel storage	NO	C	C	C
Wood preserving/treating facility	NO	NO	NO	NO

#### D. Wellhead Protection Areas (WHPA)

The DNREC Source Water Assessment and Protection Program delineate wellhead protection areas to ensure the integrity of public drinking water. Deep wells drilled into confined aquifers and low volume wells in unconfined aquifers shall have, at minimum, a one hundred and fifty foot radius wellhead protection area. The wellhead protection area surrounding public supply wells in unconfined aquifers that pump more than 50,000 gallons per day are delineated using a mathematical model. This type of well draws large quantities of water and can have much larger wellhead protection areas. Zone classifications have been created to manage land use within the wellhead protection area. They are defined as:

<sup>1</sup> Dry wells/sumps, except for single-family residences directing gutter downspouts to a dry well.

<sup>2</sup> Injection wells other than those used in the remediation of ground water contamination that inject oxygen-releasing compounds.

**Wellhead Protection (WHP) Zone 1** is the surface area extending in one hundred and fifty (150) foot radius around the wellhead.

**Wellhead Protection (WHP) Zone 2** is the remaining surface area of the wellhead protection area outside Zone 1. According to Table 1, specific land use restrictions are imposed to insure adequate protection of public drinking water supply.

**Wellhead Protection (WHP) Zone 3** exists where a WHP Zone 2 area overlays an area of excellent ground-water recharge potential area. Conditional land use restrictions within Zone 3 may be required to insure adequate protection of public drinking water supply.

1) Wellhead Protection Zone 1 Requirements:

- a. Parcels of land within a Wellhead Protection Zone 1 wellhead protection area will be preserved in a natural condition with the exception of impervious surface limited to building and access associated with the well and distribution and treatment facilities and their maintenance.
- b. Aboveground storage tanks for materials used in the treatment facility operation are permitted.
- c. Underground storage tanks are prohibited.
- d. Stormwater runoff will be diverted away from the wellhead.
- e. Stormwater infiltration practices designed to handle runoff are prohibited.
- f. The minimum lot area for a proposed public water supply well and related facility drawing from a confined aquifer shall be 1 acre and the minimum lot area for a public well drawing from an unconfined aquifer shall be 2 acres.
- g. On-site Wastewater and Disposal Systems shall not be permitted.

2) Wellhead Protection Zone 2 Requirements:

- a. According to Table 1, if specific land uses are not expressly allowed or prohibited, additional approval conditions may be imposed on land uses within this zone, if necessary, to insure adequate protection of public drinking water supply.

- b. Wellhead Protection Areas within Zone 2 should not exceed 20% impervious cover. New development in this Zone may exceed the 20% impervious cover threshold within Wellhead protection Areas , but shall be no more than 50% impervious cover, provided the applicant submits an Environmental Assessment Impact Report (See Environmental Assessment Impact Report Section H).
- c. Stormwater shall be treated by an approved stormwater quality management practice in accordance with current requirements of the Delaware Sediment and Stormwater Regulations dated January 1, 2014 or as later revised.
- d. For all new construction, all structures shall be required to discharge roof drains onto permeable surfaces.
- e. Underground storage tanks with a capacity greater than 110 gallons containing petroleum, and Residential and Agricultural USTs with a capacity greater than 1,100 gallons containing heating fuel or motor fuel shall be permitted in Wellhead Protection Zone 2 if the USTs are designed, constructed, maintained, and operated in accordance with the Delaware Regulations Governing Underground Storage Tank Systems, June 11, 2010 or as later revised. (NOTE: Regulated USTs must be constructed with secondary containment of the tanks and piping and must be continually monitored for releases.)
- f. Underground storage tanks with a capacity greater than 110 gallons containing a hazardous substance as defined in CERCLA §101(14) shall be permitted in Wellhead Protection Zone 2 if the USTs are designed, constructed, maintained and operated in accordance with the Delaware Regulations Governing Underground Storage Tank Systems, June 11, 2010, or as later revised . (NOTE: Regulated USTs must be constructed with secondary containment of the Tanks and piping and must be continuously monitored for releases.)
- g. Aboveground storage tanks with a capacity greater than 12,499 gallons containing petroleum or hazardous substances, and ASTs with a storage capacity greater than 39,999 gallons containing diesel, heating fuel or kerosene shall be permitted in a delineated wellhead area if the ASTs are designed, constructed, operated and maintained with the applicable requirements in of the Delaware Regulations

Governing Aboveground Storage Tanks, dated February 11, 2005 or as later revised.

- h. On-Site Wastewater Treatment and Disposal Systems shall not be permitted except to replace an existing system that poses a risk to public health and/or water quality.

### 3) Wellhead Protection Zone 3 Requirements:

According to Table 1, if specific land uses are not expressly allowed or prohibited, additional approval conditions may be imposed on land uses within this zone, if necessary, to insure adequate protection of public drinking water supply.

## **E. Areas of Excellent Ground-Water Recharge Potential**

- a) Pursuant to Table 1, if specific land uses are not expressly allowed or prohibited, additional approval conditions may be imposed on land uses within this zone, if necessary, to insure adequate protection of public drinking water supply.
- b) The excellent ground-water recharge potential area should not exceed 20% impervious cover. New development in this area may exceed the 20% impervious cover threshold within the excellent ground-water recharge potential area, but shall be no more than 50% impervious cover, provided the applicant submits an Environmental Assessment Impact Report .
- c) Stormwater shall be treated by an approved stormwater quality management practice in accordance with current requirements of the Delaware Sediment and Stormwater Regulations dated January 1, 2014 or as later revised.
- d) For all new construction, all structures shall be required to discharge roof drains onto permeable surfaces.
- e) Underground storage tanks with a capacity greater than 110 gallons containing petroleum, and Residential and Agricultural USTs with a capacity greater than 1,100 gallons containing heating fuel or motor fuel shall be permitted in a excellent ground-water recharge potential area if the USTs are designed, constructed, maintained and operated in accordance with the Delaware

Regulations Governing Underground Storage Tank Systems, dated June 1, 2010, or as later revised. (NOTE: Regulated USTs must be constructed with secondary containment of the tanks and piping and must be continuously monitored for releases.)

- f) Underground storage tanks with a capacity greater than 110 gallons containing a hazardous substance as defined in CERCLA §101(14) shall be permitted in a delineated excellent ground-water recharge potential area if the USTs are designed, constructed, maintained and operated in accordance with the Delaware Regulations Governing Underground Storage Tank Systems, dated June 11, 2010, or as later revised.
- g) Aboveground storage tanks with a capacity greater than 12,499 gallons containing petroleum or hazardous substances, and ASTs with a storage capacity greater than 39,999 gallons containing diesel, heating fuel or kerosene shall be permitted in a delineated excellent ground-water recharge potential area if the ASTs are designed, constructed, operated and maintained with the applicable requirements in of the Delaware Regulations Governing Aboveground Storage Tanks, dated February 11, 2005 or as later revised.
- i. On-site Wastewater Treatment and Disposal Systems in Areas of Excellent Groundwater Recharge Potential shall not be permitted except to replace an existing system that poses a risk to public health and/or water quality.

#### **F. Boundary Determination for Source Water Protection Areas**

1) All subdivision and land development plans depicting development or land disturbance submitted for Town review shall be evaluated for the existence of source water protection areas. All such areas are as depicted on Source Water Protection Area maps located in Town Hall and will be adopted as part of the update of the 2006 Comprehensive Land Use Plan. These maps are also available in GIS overlays. Maps/overlays are available from Delaware Department of Natural Resources and Environmental Control (DNREC), Division of Water Resources, Source Water Assessment and Protection Program (SWAPP). If a SWPA exists within a proposed development site, the boundaries of these

areas shall be delineated on the plan by the applicant's State of Delaware Professional Engineer or Professional Geologist.

2) DNREC SWAPP may, when based on sound science and information, revise and update the overlay maps of wellhead protection areas.

3) The Delaware Geological Survey (DGS) may, when based on sound science and information, revise and update the overlay maps of excellent ground-water recharge potential areas.

4) When there appears to be a conflict between the mapped boundary and actual site conditions, the applicant may engage the services of a Professional Geologist to prepare a report intended to determine more accurately the precise boundary of the Source water Protection Area.

The Report shall include:

- a. A detailed topographic layout of the subdivision and/or area to be developed and prepared by a State-registered professional land surveyor or Professional Geologist;
- b. Evidence derived from a site-specific investigation that may include aquifer testing, test borings, test pits, observation wells, groundwater elevations, and topography surveys as appropriate for the type of source water protection area that clearly demonstrate that the area in question does not meet the definition of a source water protection area as defined.
- c. Any challenges to the delineations of excellent ground-water recharge potential areas must follow the methods used in the Delaware Geological Survey 27 publication: Report of Investigations No. 66, Ground-Water Recharge Potential Mapping in Kent and Sussex Counties, Delaware. The challenge must be approved by DGS and DNREC SWAPP.

5) Notwithstanding any other section of this Chapter, if an owner initiates a precise boundary delineation pursuant to this section, any and all time review limitations shall be

stayed pending the submission of the complete report contemplated by this section. Following submission of the report and all supporting documents, the Department shall have ninety (90) days to finally approve or disapprove the exploratory sketch plan submission or such further time as deemed necessary by the Department, but not to exceed an additional ninety (90) days).

### **G. Redevelopment within Source Water Protection Districts**

In order not to discourage infill and the redevelopment of existing buildings to revitalize the existing business district, improve blighted areas, remediate and reuse contaminated sites, protect public health and safety, and promote a diversity of new uses and employment, the following standards for impervious cover and stormwater management shall apply in the previously developed area zoned Town Center, Single-Family Residential, Manufacturing and Commercial:

- 1) For all infill development and redevelopment within these zoned areas as mapped on the 2013 Town of Bridgeville, Delaware Zoning Map, impervious cover may exceed 50% within delineated Source Water Protection Districts;
- 2) The prohibitions and conditions on land uses itemized in Table 1 shall apply in Wellhead Protection Zones within this previously developed area, and the Town shall protect the resource from encroachment and additional impervious cover to the maximum extent practicable in Wellhead Protection Zone 1;
- 3) All structures will be required to discharge roof drains into underground recharge systems or permeable surfaces that allow discharges to infiltrate into the ground. The site plan is to consist of Best Management Practices that include such items as pervious pavers, pervious concrete and infiltration practices designed to assure that recharge is maximized. The practices shall address water quality as well as overall water quantity;

4) Outside of this previously developed area, site modifications that require site plan approval within Source Water Protection Districts must achieve a 15% reduction in the amount of impervious cover on the site when compared to pre-redevelopment conditions; if the 15% reduction would require a site to go below the 20% maximum impervious cover provisions of Source Water Protection Districts, then the maximum impervious surface cover for the site is 20%.

If the 15% reduction does not meet the 20% impervious cover threshold, site modifications must employ rooftop infiltration practices. Stormwater shall be treated by an approved stormwater quality management practice in accordance with current requirements of the Delaware Sediment and Stormwater Regulations dated January 1, 2014, or as later revised.

#### **H. Environmental Impact Assessment Report.**

New development in the Town of Bridgeville may exceed the 20% impervious cover threshold within Excellent Ground Water Recharge Potential Areas and WHP Zone 2, but be no more than 50% impervious, provided the applicant submits an environmental assessment report including a climatic water budget and systems to augment recharge that assure water quality as well as quantity. The environmental impact assessment must document that post-development recharge will be no less than predevelopment recharge when computed on an annual basis. Commonly, the applicant offsets the loss of recharge due to impervious cover by constructing recharge basins that convey pretreated rooftop runoff for infiltration to ground water.

A Delaware Registered Professional Engineer and/or Professional Geologist shall prepare an environmental assessment report, usually containing the following elements of planning, design, construction, and maintenance of ground-water recharge facilities:

- a. Site description of proposed development within the water resource protection area

- b. Climatic water balance comparing predevelopment and post-development recharge potential
- c. Subsurface exploration including borings, test pits, and infiltration tests
- d. Design of ground-water recharge facilities that assure water quality as well as quantity
- e. Construction and maintenance considerations
- f. Recommended ground-water monitoring plan
- g. Water management agreement between the applicant and the town providing for monitoring and maintenance of the recharge system. The applicant will abide by the Ground Water Management Agreement as written in *DNREC Supplement 1 to the Source Water Protection Guidance Manual for the Local Governments of Delaware: Ground-Water Recharge Design Methodology, dated May 2005* or as later revised.

#### **I. Nonconforming Uses.**

Nonconforming uses may continue in wellhead protection area and excellent ground-water recharge potential areas in the form in which they existed at the time of the adoption of this ordinance, unless they pose a direct hazard to the city's water supply, as determined by the water and waste water department upon advice from the Delaware Division of Public Health, or are causing some foreign substances (oil, salts, chemicals, or other substances) to be introduced into the city's water supply, as determined by the water and waste water department upon advice from DNREC's Division of Air and Waste Management and/or Division of Water Resources.

In the latter case, the Town shall issue a mandatory cease and desist to stop the offending activity within the area. Nonconforming existing underground or above-ground storage of oil, petroleum, and petroleum products shall require secondary containment pursuant to the State of Delaware regulations governing underground storage tanks or for above-ground storage of petroleum products secondary containment facilities capable of capturing the material stored on the site, for existing facilities that are proposed either to be upgraded or replaced.

**J. Replacement and New Wells**

1) The replacement of any existing public water supply well that was not required to meet this wellhead protection requirement at the date of its original installation and that has failed shall be exempt from meeting this wellhead protection requirement.

2) All public water supply wells within a housing development, subdivision, or strip development recorded on or after the implementation of the Delaware Regulations Governing the Construction and Use of Wells, dated April 6, 1997 or as later revised, shall be located at least one-hundred fifty (150) feet within the subdivision's or development's outermost property lines

**K. Other Exemptions**

The following are exempt from the requirements of this Ordinance:

- a) Existing private residential wells serving individual households;
- b) Wells used for agricultural purposes;
- c) Residential subdivisions recorded at the time of adoption of this Ordinance;
- d) Revisions to recorded subdivision plans that do not result in the creation of additional lots; and
- e) Improvements to existing residential lots, including additions to existing single family dwellings and the placement of sheds and fences.

Section 2. Effective Date. This ordinance shall become effective upon its adoption by a majority of the members elected to the Commission.

COMMISSIONERS OF BRIDGEVILLE

By: \_\_\_\_\_

ATTEST: \_\_\_\_\_

First Reading: \_\_\_\_\_  
Second Reading: \_\_\_\_\_  
Adopted: \_\_\_\_\_

### Synopsis

All municipalities with a population larger than 2,000 persons are required to have a sourcewater protection ordinance, according to Delaware Code Title 7, Subchapter VI, Section 6082.

This ordinance protects the Town's sources of public drinking water and prescribes what activities may or may not take place within delineated wellhead protection zones and areas of excellent water recharge potential. With exceptions noted, it sets limits on the percentage of impervious cover (paved and other man-made surfaces) within these source water protection areas.