

Chapter 15
Article 4B
Well Head Protection Overlay District

Sec. 15-62K Purpose.

To establish the City of Seaford's authority and responsibility to manage and otherwise regulate well head protection areas, ground water recharge areas, aquifers and ground water resources in order to protect public health and safety by minimizing the risk of contamination of shallow/surficial aquifers and preserving and protecting existing and potential sources of drinking water supplies.

Sec. 15-62L Definitions:

- 1) **Aquifer:** A geological formation, group of formations or part of a formation composed of rock, sand or gravel capable of storing and yielding quantities of groundwater usable for municipal or public water supplies.
- 2) **Contamination:** An impairment of water quality by chemicals, radionuclides, biologic organisms, or other extraneous matter whether or not it affects the potential or intended beneficial use of water.
- 4) **Groundwater:** All water below the land surface in the zone of saturation or in rock fractures capable of yielding water to a well.
- 5) **Groundwater recharge:** The infiltration of precipitation through surface soil materials into the groundwater. Recharge may also occur from surface waters, including lakes, streams and wetlands.
- 6) **Groundwater Recharge Area (GRA):** The area delineated as excellent recharge areas within which land uses are regulated to protect the quality of the groundwater resource. These areas shall be as shown on the latest version of the Source Water Protection Area map for the City of Seaford as published by the State of Delaware Department of Natural Resources and Environmental Control.
- 7) **Site Coverage:** That portion of the entire parcel or site which, through the development of the parcel, is rendered impervious to groundwater infiltration.
- 8) **Solid Waste:** Any discharged or abandoned material including refuse, putrescible material, septage, or sludge. Solid Waste includes solid, liquid, semi-solid or gaseous waste materials.
- 9) **Spill Response Plans:** Detailed plans for control, containment, recovery, and clean up of hazardous material releases, such as during fires or equipment failures.
- 10) **Storm water Treatment Practices (STPs):** Measures, either structural or nonstructural, that are determined to be the most effective, practical means of preventing or reducing point source or non-point source pollution inputs to storm water runoff and water bodies.

11) **Time of Travel Distance (TOT):** The distance that groundwater will travel in a specified time. This distance is generally a function of the permeability and slope of the aquifer.

12) **Toxic or Hazardous Materials:** Any substance which poses an actual or potential hazard to water supplies or human health if such a substance were discharged to land or water of the City. Hazardous materials include: volatile organic chemicals, petroleum products, heavy metals, radioactive or infectious wastes, acids and alkalies. Also included are pesticides, herbicides, solvents and thinners and other such substances as defined in the Code of Federal Regulations 40CFR 261 as amended.

13) **Well Head Protection Area (WHPA):** The area delineated around wells and/or well fields within which land uses are regulated to protect the quality of the groundwater resource. These areas shall be as shown on the latest version of the Source Water Protection Area map for the City of Seaford as published by the Department of Natural Resources and Environmental Control.

Sec. 15-62M Applications.

The Well Head Protection Overlay District shall apply to all new construction, reconstruction or expansion of existing buildings and new or expanded uses. Applicable uses allowed in any zoning district must additionally comply with the requirements of this district. Uses prohibited in any zoning district shall not be permitted in the Well Head Protection Overlay District.

Sec. 15- 62N Adoption of Maps

The WHPA maps developed by the State of Delaware Department of Natural Resources and Environmental Control are hereby adopted by reference and made a part of this Ordinance.

Sec. 15-62O. Determination of the Wellhead Protection Overlay District:

If the location of a Well Head Protection Area or Excellent Ground Water Recharge Area boundary is disputed by any party, a survey, by a State of Delaware licensed professional surveyor shall serve as the basis of the determination. Final determination shall be made by the City of Seaford Building Official.

Sec. 15-62P. Use Regulations

A. Minimum Lot Size

The minimum lot size within the WHPA, for each newly created lot, shall be the same as allowed in the underlying zoning district.

B. Maximum Site Coverage

1) Within the Well Head Protection Area or Excellent Ground Water Recharge Area no more than 35% of a single lot or building site may be rendered impervious to groundwater infiltration.

2) Maximum impervious site coverage may exceed thirty-five percent (35%) provided the following performance standards are met:

a) The developer shall submit a storm water drainage plan that includes a climactic water budget prepared by a Professional Engineer licensed in the State of Delaware. Such plan shall provide for the recharge of ground water equal to or greater than the amount that would have occurred had development been limited to a maximum of 35% impervious cover. Furthermore, the storm water drainage plan shall address the presence of oil and gasoline from any runoff prior to retention and reuse of the runoff.

C. Prohibited Uses:

1) The following uses are prohibited with the WHPA:

- a) On site septic systems, bulk storage, disposal, processing or recycling of toxic or hazardous materials or wastes;
- b) Underground storage tanks. Storage tanks, if contained within a basement, are permitted.
- c) Dumping of snow carried from off-site.
- d) Gas stations, car washes, automobile service and repair shops, junk and salvage yards.
- e) Laundry and dry cleaning establishments.
- f) Industrial uses which discharge contact type wastes on site.
- g) Land applications of wastewater residuals (sludge) or septage.
- h) Landscape improvements for golf courses, greens fairways and tees. Land associated with golf courses maintained without the application of pesticides, fertilizers or other horticultural chemicals is not prohibited.

D. Permitted Uses

The following activities may be permitted provided they are conducted in accordance within the intent of this Ordinance:

- 1) Any use permitted in the underlying district, except as prohibited in C.
- 2) Maintenance, repair of any structure, provided there is no increase in impermeable surface above the limit established in B.

E. Non-Conforming Uses

Expansion of existing nonconforming uses are permitted to the extent allowed by the underlying zoning district. The applicant should consult the Building Official to confirm nonconforming uses. The City reserves the right to review all applications and shall not grant approval unless it finds such expansion does not pose greater potential contamination of groundwater than the existing use.

In Industrial, or Commercial districts where the impervious cover of a property exist prior to the effective date of this ordinance and the applicant desires to re-develop the property, the gross impervious cover shall be equal to or less than the original impervious cover percentage of the original site.

Sec. 15-62Q Performance Standards

1) All facilities shall conform to the following standards:

a) Any facility involving the collection, handling, manufacture, use, storage, transfer or disposal of any solid or liquid material or wastes, unless granted a special exception, must have a secondary containment system which may be easily inspected and whose purpose is to intercept any leak or release from the primary containment vessel or structure. Underground tanks or buried pipes carrying such materials must have double walls and inspectable sumps.

b) Storage of petroleum products in quantities exceeding 100 gallons at one locality in one tank or series of tanks must be elevated; such tanks must have a secondary containment system as noted above where it is deemed necessary by the Building Official.

c) All permitted facilities must adhere to appropriate federal and state standards for storage, handling and disposal of any hazardous waste materials.

2) An acceptable contingency plan for all permitted facilities must be prepared for preventing hazardous materials from contaminating the shallow/surficial aquifer should floods, fire or other natural catastrophes, equipment failure or releases occur.

(a) For flood control, all underground facilities shall include but not be limited to a monitoring system and secondary standpipe above the 100 year flood level, for monitoring and recovery. For above ground facilities, an impervious dike, above the 100 year flood level and capable of containing 100 percent of the largest volume of storage will be provided with an overflow recovery catchment area (sump).

(b) For fire control, plans shall include but not be limited to a safe fire fighting procedure, a fire retarding system, effective containment of any liquid runoff, and provide for dealing safely with any other health and technical hazards that may be encountered by disaster control personnel in combating fire. Hazards to be considered are pipes, liquids, chemicals, or open flames in the immediate vicinity.

(c) For equipment failures, plans shall include but not be limited to:

Below ground level, removal and replacement of leaking parts, a leak detection system with monitoring and an overflow protection system.

Above ground level, liquid and leaching monitoring of primary containment systems, the replacement or repair and cleanup and/or repair of the impervious surface.

(d) For any other releases occurring the owner and/or operator shall report all incidents involving liquids or chemical material to the City Manager.

Sec. 15-62R. Reporting of spills

A. Any unauthorized discharge of a Regulated Substance(s) in excess of five (5) gallons, if liquid or twenty five (25) pounds if solid, shall be reported immediately by the facility owner, operator or other responsible party to the City Manager. Such reporting shall in no way relieve the owner, operator, or responsible party from other Local, State or Federal reporting obligations by Law. The owner, operator responsible party or person providing notification shall inform the City of the substance(s) discharged, the amount, location, duration of discharge and potential hazard to groundwater, if known.

B. A discharge of any quantity of a Regulated Substance must be remedied such that contamination of soils, surface water or groundwater is brought into compliance with local, State and/or Federal standards.

C. Clean up activities shall begin concurrent with or immediately following emergency response activities. A full written report including the steps taken to contain and clean up the spill shall be submitted to the City within forty five days of the discovery of the spill.

Adopted _____, 2007