

Section 3-170

WATER RESOURCE PROTECTION DISTRICT

3-170.1 - Intent.

The intent and purposes of this Water Resource Protection District are: to promote the health, safety and general welfare of the community; to protect, preserve and maintain the public water supply and the lands that contribute to it; to conserve the natural water resources within the City; and to prevent the pollution of the public water supply of the City and surrounding areas.

3-170.2 - Delineation of the District.

1. *The Water Resource Protection District is hereby established as overlaying and superimposed upon other existing zoning districts. Such district shall be inclusive of those areas approved by the Massachusetts Department of Environmental Protection (hereinafter MassDEP) and defined under the Massachusetts Drinking Water regulations 310 CMR 22.00 as Zones I & II aquifer recharge areas for the Barnes, Southampton, Great Brooks and Northwest Road aquifers, duly adopted and shown on the zoning map.*
2. *Any petition to amend the location of the district boundary established above shall include evidence of a scientific and professional investigation, and/or the City may, at the petitioner's expense, engage a qualified professional engineer, hydrologist, geologist, or soil scientist to verify or more accurately determine the boundaries of this district with respect to the subject property.*

3-170.3 - Applicability.

1. *Except where the Water Resource Protection District imposes greater restrictions or requirements, all other provisions of the zoning ordinance are applicable and remain in effect. Nothing in Section 3-170 shall allow for any use or condition not allowed in the underlying district.*
2. *In the case of a lot or parcel partially within the Water Resource Protection District, and to achieve the purposes and intent of this ordinance, the use regulations, review thresholds and performance standards of Section 3-170 shall apply to the entirety of the property when any alteration or development is to occur within the limits of this district. However, a Special Permit issued by the Planning Board or applicable permit granting authority may allow for exemption of any portion of the property not within the delineated Water Resource Protection District from any provision of Section 3-170.*
3. *Lawfully pre-existing uses or conditions which do not conform to the current requirements of this district may be continued. Such uses may also be extended or altered in accordance with the applicable provisions of 3-170.7(1) and/or 4-10.*

3-170.4 - Definitions.

1. *Commercial Fertilizer. Any substance containing one or more recognized plant nutrients which is used for its plant nutrient content and which is designed for use, or claimed to have value in promoting plant growth, except un-manipulated animal and vegetable manures, marl, lime, limestone, wood ashes, compost, gypsum, and other products exempted by state regulations.*
2. *Common Development Project. A project planned to include development of a contiguous land area, in excess of a single existing or proposed lot, and whose limits are defined by a comprehensive Special Permit in accordance with this section. Such plans shall illustrate all future or phased development, even if conceptual in nature.*
3. *Discharge. The accidental or intentional disposal, deposit, injection, dumping, spilling, leaking, pouring, or placing of toxic or hazardous material or hazardous waste upon or into any land or water such that it may enter the surface or ground waters.*

4. Groundwater. All water found beneath the surface of the ground.
5. Hazardous Material. Any substance in any form which because of its quantity, concentration, or its chemical corrosive, flammable, reactive, toxic, infectious or radioactive characteristics, either separately or in combination with one or more substances, constitutes a present or potential threat to human health, safety, welfare, or to the environment, when improperly stored, treated, transported, disposed of, used, or otherwise managed. Hazardous materials include, without limitation: synthetic organic chemicals; petroleum products; heavy metals; radioactive or infectious wastes; acids and alkalis; solvents and thinners in quantities greater than normal household use; and all substances defined as hazardous or toxic under M.G.L. c.21C and 21E and 310 CMR 30.00.
6. Hazardous Waste. A substance or combination of substances, which because of 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 reversible illness or pose a substantial present or potential hazard to human health, safety, or welfare or to the environment when improperly treated, stored, transported, used or disposed of, or otherwise managed. This term shall include all substances identified as hazardous pursuant to the Hazardous Waste Regulations, 310 CMR 30.000.
7. Hazardous Waste, Small Quantity Generator of. Any entity generating between 220 and 2,200 pounds of hazardous waste per month (approximately 27 to 270 gallons), and/or generating or accumulating up to 1 kilogram (2.2 pounds) of acutely hazardous waste. A Small Quantity Generator may accumulate up to 13,200 pounds (1,500 to 1,620 gallons) of non-acutely hazardous waste for no more than 180 days. Such entity shall be further defined as occurring only within those areas of land in this district contributing to the groundwater recharge areas of wells 01G, 02G, 07G and/or 08G.
8. Hazardous Waste, Very Small Quantity Generator of. Any entity, other than residential, which produces less than 27 gallons a month of hazardous waste or waste oil, but not including any acutely hazardous waste as defined in 310 CMR 30.136.
9. Impervious Surfaces. Materials or structures on or above the ground that do not effectively allow precipitation to infiltrate the underlying soil, including buildings, roof overhangs, non-porous pavement, dense-graded gravel or any surface with an infiltration rate of less than ½ inch per hour. Uncovered residential decks (which allow rainwater to drip between deck boards to non-impervious ground below), natural surface waters and densely vegetated cover open to the sky shall not be considered impervious surfaces.
10. Petroleum Products. Petroleum or petroleum by-product including, but not limited to: fuel oil; gasoline; diesel; kerosene; aviation jet fuel; aviation gasoline; lubricating oils; oily sludge; oil refuse; oil mixed with other wastes; crude oils; or other liquid hydrocarbons regardless of specific gravity. Petroleum products shall not include liquefied petroleum gas including, but not limited to, liquefied natural gas, propane or butane.
11. Treatment Works. Any and all devices, processes and properties, real or personal, used in the collection, pumping, transmission, storage, treatment, disposal, recycling, reclamation, or reuse of waterborne pollutants, including community septic systems, which require a groundwater discharge permit from the MassDEP. But not including any works receiving a hazardous waste from off the site of the works for the purpose of treatment, storage, or disposal.
12. Waste. Any discard material, or any material otherwise generated or produced as a by-product of any activity which is not intended for further use by the generator or producer.
13. Zone I. The protective radius, typically 400 feet, required around a municipal water supply well or wellfield as approved by MassDEP and defined under the Massachusetts Drinking Water regulations 310 CMR 22.00.
14. Zone II. That recharge area of an aquifer which contributes water to a public drinking water well under the most severe pumping and recharge conditions that can be realistically anticipated; further defined under the Massachusetts Drinking Water regulations 310 CMR 22.00, and the delineation of which is approved by MassDEP.

3-170.5 - Prohibited Uses.

The following uses, activities or conditions are prohibited within the Water Resource Protection District:

1. *Business and industrial uses (but not agricultural) which generate, treat, store, or dispose of hazardous wastes that are subject to MGL c.21C and 310 CMR 30.00, including but not limited to metal plating, chemical manufacturing, wood preserving, furniture stripping, hazardous materials processing or transfer, asphalt plants, plastics manufacturing, laboratory operations, machine shops, metal working, electronic component or semi-conductor manufacturing, dry cleaning, and auto body repair, except for the following (unless specifically prohibited):*
 - a. *Small or very small quantity generators of hazardous waste, as defined herein, provided a Special Permit in accordance with this ordinance has been issued;*
 - b. *Waste oil collection facility for automobile service stations, retail outlets, and marinas which is sheltered and has adequate protection to contain a spill, seepage, or discharge of petroleum waste products in accordance with and required by M.G.L. c.21. s.52A; and*
 - c. *Treatment works for the remediation of contaminated water, which are approved by MassDEP and designed in accordance with 314 CMR 5.00.*
2. *Solid waste landfills, open dumps, auto recycling, auto graveyards, junk and salvage yards, landfilling or storage of sludge and septage. The foregoing shall be inclusive of any facility, whether in conformance with or in violation of city, state or federal regulations, established for the purposes of disposing into or on the land: solid waste; motor vehicles and equipment; solid, semi-solid or liquid materials or residue from toilets, holding tanks or other sewage waste receptacles or from wastewater or drinking water treatment processes.*
3. *Self-storage businesses.*
4. *Motorized vehicle or boat service and repair businesses, automotive body repair shops, car washes. Incidental and minor vehicle maintenance activities associated with an existing use and aircraft-related activities shall be exempted from this prohibition, but remain subject to other requirements of this district.*
5. *Petroleum product dispensing, including commercial gasoline sales and commercial petroleum product storage facilities, but excluding aviation fuels.*
6. *Petroleum, fuel oil, and heating oil bulk stations and terminals including, but not limited to, those listed under Standard Industrial Classification (SIC) Codes 5983, Fuel Oil Dealers; and 5171, Petroleum Bulk Stations and Terminals, not including liquefied petroleum gas.*
7. *Underground storage of petroleum products, including, without limitation, gasoline, waste oil, diesel fuel, and any other liquid hydrocarbon, except as otherwise specifically allowed.*
8. *Outdoor open storage of salt, de-icing materials, animal manure, commercial fertilizers, pesticides, and herbicides, including loading areas associated with same.*
9. *Dumping or disposal of any hazardous material or hazardous waste on the ground, in water bodies, in septic systems or in other drainage system, including cleaners which contain toxic chemicals such as methylene chloride and 1-1-1 trichloroethane.*
10. *Stockpiling or disposal of snow or ice removed from highways and streets located outside of the Water Resource Protection District that contains sodium chloride, calcium chloride, chemically treated abrasives or other chemicals used for snow and ice removal.*
11. *Business or industrial uses (but not agricultural) which dispose of process wastewaters on-site.*
12. *Wastewater discharge from industrial and commercial facilities containing wastes from any activity other than collection of sanitary sewage including, but not limited to, activities specified in the Standard Industrial Classification (SIC) Codes set forth in 310 CMR 15.004(6), and including industrial and commercial process wastewater, except:*

- a. *The replacement or repair of an existing treatment works that will not result in a design capacity greater than the design capacity of the existing treatment works;*
 - b. *Treatment works approved by MassDEP designed for the treatment of contaminated ground or surface water and operating in compliance with 314 CMR 5.05(3) or 5.05(13);*
 - c. *Publicly-owned treatment works; and*
 - d. *Discharges utilizing the municipal sanitary sewer system.*
13. *Residential, commercial or industrial uses within any Zone I, or any other activity in said area resulting in a use prohibited by 310 CMR 22.00.*
 14. *Multifamily residential uses which are not served by the municipal sanitary sewer system.*
 15. *Commercial earth removal, as defined in Section 5-20.*
 16. *Processing, reprocessing, remanufacturing, reclamation and/or recycling of construction materials, building materials and/or demolition materials such as, but not limited to, lumber, asphalt, brick and concrete.*
 17. *Cemeteries.*

3-170.6 - Permitted Uses.

The following uses and activities are permitted within the Water Resource Protection District, provided that the use is also permitted in the underlying district, and pursuant to all other requirements of this district, including 3-170.8. A permitted use may also require a Special Permit for a condition or activity regulated under 3-170.7.

1. *Agriculture, horticulture, floriculture, forestry and nursery uses provided that the storage of associated chemicals, in quantities greater than normal household use, including but not limited to: fertilizers, herbicides, pesticides, manure or other leachable materials in compliance with the requirements found in 310 CMR 22.21(2)(b) 3 and 4.*
2. *Single family dwellings (2-acre minimum lot area).*
3. *Day Care Center, Family Day Care Homes and school age child care programs.*
4. *Municipal recreation buildings, playgrounds, outdoor recreation and parks, but excluding dog parks.*
5. *Uses for educational or religious purposes.*
6. *Accessory uses on the same lot with, and customarily incidental to, the foregoing principal uses, subject to any further requirements of this ordinance.*

3-170.7 - Special Permit Uses.

In addition to those allowed in the underlying districts (but not listed in 3-170.6), the following uses, activities or conditions shall require a Special Permit, provided they are not prohibited per Section 3-170.5. For any use exempted under MGL c.40A s.3, Site Plan Approval (Section 6-10) shall be required in lieu of this Special Permit.

For uses that are permitted by-right in the underlying district, the Special Permit required by this section shall be issued by the Planning Board. For uses requiring a use Special Permit in the underlying district, the Special Permit required by this section shall be issued by the Special Permit Granting Authority for the underlying district and shall be included as a part of that Special Permit Application. Any approval, findings and conditions required under this district shall be in addition to, and incorporated with, the findings and conditions concerning the Special Permit for the underlying district.

1. *Changes in existing uses or their developed sites, whether or not conforming to the requirements of this district, as follows:*

- a. *Business, commercial, industrial, or multifamily residential uses:*
 - i. *change of or new use (including new accessory uses which may have direct or indirect impact upon water resources);*
 - ii. *any modification resulting in an increase in impervious surfaces, provided it adds more than either 2,500 square feet of impervious surface to the lot or causes more than 15% of the total lot area to be impervious surface, and in accordance with 3-170.9(2);*
 - iii. *new construction, reconstruction or enlargement of the building footprint to greater than 25% of the existing;*
 - iv. *an increase of 10 or more parking spaces;*
 - v. *expansion to greater than 10% of the existing for any material, condition or use described in 3-170.5;*
 - vi. *any increase in generation of hazardous wastes above existing quantities permitted; or*
 - vii. *any increase in impervious surfaces on the lot of a pre-existing use (as of November 17, 2014) which causes or intensifies non-conformance with 3-170.8(2).*

Notwithstanding the foregoing, a separate Special Permit per Article IV, Section 4-10.3 concerning the underlying district may also be required from the Board of Appeals. Unless a joint public hearing on the Special Permit applications is held, the applicant shall seek Board of Appeals approval first. Each Board shall make its own separate findings and decision pursuant to their respective responsibilities under the separate articles.

If a Special Permit is issued pursuant to Section 3-170.7(1a) for a pre-existing use non-conforming to the requirements of this district only, it shall be deemed a finding of not substantially more detrimental than the existing condition, and no finding per Section 4-10.3 shall be required, except as may concern a non-conformity with the underlying district.

- b. *Single and two-family residential uses: Changes in any impervious surfaces resulting in a net increase, provided the lot is not in conformance with, or the change will result in non-conformance with, 3-170.7(4). If a separate finding per Article IV, Section 4-10.3 is also required, the Board of Appeals may concurrently issue the Special Permit required under this paragraph (1b) only.*
2. *Any new business, commercial, industrial or other non-residential use (except those described in 3-170.6).*
 3. *Any new residential use or development, excluding single-family dwellings.*
 4. *The addition of impervious surface equivalent to more than either 15% of the lot/parcel or 2,500 square feet per lot, and in accordance with 3-170.9(2); except that no special permit shall be required for residential uses, municipal facilities or any use permitted by-right if impervious surfaces do not exceed the greater of the above thresholds.*
 5. *The alteration or disturbance of more than 40,000 square feet of land, excluding milling or re-surfacing (but not reconstruction) of existing pavements, agriculture and logging activities, and developments separately approved under the Subdivision Control Law.*
 6. *The above ground storage of hazardous materials or petroleum products, except that a Special Permit shall not be required for storage of products which are: in 5 gallon or less approved portable containers and used for customary residential or commercial maintenance activities; or liquid petroleum used for the heating of single family or two-family residence provided such storage meets the performance standards described herein and is otherwise in compliance with the Fire Safety Code (527 CMR).*
 7. *Excavation for removal of earth, loam, sand, gravel and other soils or mineral substances. Such excavation shall not extend closer than 5 feet above the historical high groundwater table (as determined from on-site investigations, monitoring wells and historical water table fluctuation data compiled by the United States Geological Survey, whichever is higher). A monitoring well shall be installed by the property owner to verify groundwater elevations. A Special Permit shall not be required for excavations incidental to permitted uses, including but not limited to providing for the installation or maintenance of structural foundations, utility conduits or on-site sewage disposal.*

3-170.8 - Dimensional and Coverage Requirements.

1. *Minimum lot size shall be 2 acres (87,120 square feet), regardless of whether it is serviced by public water and/or public sewer. For non-residential uses, this requirement shall not apply to any lot in existence as of November 17, 2014, notwithstanding any such lot may be altered or expanded thereafter, but not reduced in its area.*
2. *Maximum impervious surface coverage of any lot or common development project shall be 70%.*
3. *All other dimensional and density provisions of the underlying district shall apply.*

3-170.9 - Special Permit Additional Requirements.

In addition to all other requirements, the following shall be submitted to the Special Permit Granting Authority, as applicable to the subject application:

1. *Provisions to control soil erosion and sedimentation, during and after construction.*
2. *Planned drainage recharge features to prevent loss of recharge that will not degrade groundwater. The management of stormwater, including the reduction in runoff volume increases, infiltration practices and artificial recharge systems shall use methods demonstrated to be capable of removing contaminants from stormwater and which are consistent with those described in the MassDEP's Stormwater Handbook, Volumes I, II, III, as amended to date. Justification shall be provided by the applicant for rejecting any practice based on site conditions or infeasibility.*
 - a. *For business, commercial, industrial or multifamily uses, a stormwater management plan shall be developed which provides for the artificial recharge of precipitation to groundwater, in accordance with 3-170.11(2).*
 - b. *For single and two-family residential uses, recharge may be attained through site design that incorporates natural drainage patterns and vegetation. To the extent practicable, stormwater runoff from rooftops, driveways, roadways and other impervious surfaces shall be routed through areas of natural vegetation and/or devices such as rain gardens, infiltration basins, infiltration trenches or similar systems. Provisions for maintenance shall be described.*
3. *A complete list of chemicals, pesticides, herbicides, fertilizers, fuels, and other potentially hazardous materials to be used or stored on the premises, except when the quantities are so small as to be considered equivalent to normal household use.*
4. *A hazardous material management plan consistent with 3-170.11, including:*
 - a. *A list of all hazardous materials;*
 - b. *Provisions to protect against the discharge of hazardous materials, petroleum products or wastes to the environment due to spillage, accidental damage, corrosion, leaking, or vandalism, including spill response, containment, and clean up procedures; and*
 - c. *Provisions for indoor, secured storage of hazardous materials and wastes, with impervious floor surfaces and containment mechanisms.*
5. *Evidence of compliance with the Regulations of the Massachusetts Hazardous Waste Management Act 310 CMR 30 and information on anticipated hazardous waste generation rates. Copies of Massachusetts Hazardous Waste reporting forms shall be made available to the City's zoning enforcement officer upon request.*
6. *For Open Space Subdivisions (Section 5-60) proposed within this district, a credible conventional-type plan showing a 2 acre minimum lot size as the basis for determining development capacity of the property.*

3-170.10 - Special Permit Additional Procedures.

1. *Except for those concerning single and two family residential lots, the Special Permit Granting Authority shall distribute copies of Special Permit applications to the Board of Health, the Conservation Commission, the City Engineer and the Water Commission, who may defer review to the Barnes Aquifer Protection Advisory Committee. Each entity, or their representative, shall review the application and submit written comments to the Special Permit Granting Authority, who shall defer its final action until such comments are received or 35 days have elapsed.*
2. *Any project requiring a Special Permit under Section 3-170 shall be reviewed by the Special Permit Granting Authority only as to its the potential for groundwater contamination and consistency with the intent this Section. If it determines that the project use has potential to pollute groundwater, it shall withhold approval or it shall prescribe and condition appropriate measures, such as a groundwater management program which may include the installation of groundwater monitoring wells and a regular testing procedure.*
3. *A Special Permit may be granted upon the finding that the proposed use, and the development thereof, meets the following standards:*
 - a. *the use is in harmony with the intent of this ordinance and district and will not interfere with water resource protection;*
 - b. *the use is appropriate to the natural topography, soils, drainage, vegetation and other water-related characteristics of the site, and is designed to minimize substantial disturbance of these natural site characteristics; and*
 - c. *the use will not, during construction or thereafter, adversely affect the existing or potential quality or quantity of groundwater available in this district;*

3-170.11 - Performance Standards.

The following shall apply to all uses, whether allowed by Special Permit or by-right:

1. *Any land use resulting in more than either 2,500 square feet per lot or 15% of the total lot area as impervious surface shall provide a system of artificial recharge that will not result in the degradation of groundwater quality (refer to 3-170.9(2)).*
2. *For business, commercial, industrial or multifamily uses, and to the extent feasible, run-off from impervious surface shall be recharged on the site by stormwater infiltration basins or similar systems utilizing natural vegetation, and not directly to any streams or surface waters. Groundwater recharge shall be attained through site design that incorporates natural drainage patterns and vegetation, and through the use of stormwater infiltration basins, infiltration trenches, porous pavement or similar systems. Subsurface pits allowing stormwater drainage to seep into surrounding soil (drywells) shall be used only where other methods are infeasible, but in all cases shall include appropriate pre-treatment measures. Discharge to groundwater shall be preceded by oil, grease, and sediment traps or other established methods which facilitate removal of contaminants. Infiltration systems greater than 3 feet deep shall be located at least 100 feet from drinking water wells, and should be situated at least 10 feet down-gradient and 100 feet up-gradient from building foundations to avoid seepage problems. Infiltration basins and trenches shall be constructed with a 3 feet minimum separation between the bottom of the structure and maximum groundwater elevation.*
3. *All recharge systems shall be permanently and properly maintained in full working order by the owner. Logs of maintenance activities of such systems shall be made available to the zoning enforcement officer upon request.*
4. *Sodium chloride for ice control shall be used at the minimum salt to sand ratio which is consistent with the public highway safety requirements, and its use shall be eliminated on roads or parking lots which may be closed to the public in winter.*

5. *The storage of sodium chloride, calcium chloride, chemically treated abrasives or other chemicals used for the removal of ice and snow on roads shall be within a building or completely covered and on a solid and impervious surface with curbs or berms designed to prevent the generation, infiltration and escape of any contaminated run-off.*
6. *Fertilizers, pesticides, herbicides, lawn care chemicals, or other leachable materials should be minimized and shall be used in accordance with the Lawn Care Regulations of the Massachusetts Pesticide Board, 33 CMR 10.03 (30, 31) with manufacturer's label instructions and all other necessary precautions to minimize adverse impacts on surface and groundwater. Logs of any commercially-applied materials shall be made available to the zoning enforcement officer upon request.*
7. *The storage of commercial pesticides, fertilizers and soil conditioners shall be within structures designed to prevent the generation and escape of contaminated run-off or leachate.*
8. *To extent feasible, all new permanent animal manure storage areas shall be covered and/or contained to prevent the generation and escape of contaminated runoff or leachate.*
9. *All hazardous materials and petroleum products shall be stored above ground level in a free standing container, either within a building or in a covered container or tank on a solid and impervious surface, with protections to contain a spill. A tertiary containment system, with the outer containment designed and operated to contain the total storage volume plus an additional 10% shall be utilized.*
10. *All vehicle and motorized craft maintenance facilities must have floor drains, unless in receipt of a variance from the State Plumbing Board, which must be connected to a municipal sewer system or, in unsewered areas, to a state-approved holding tank. All other facilities, which use, store or maintain hazardous materials or wastes must, with state approval, seal floor drains or connect them to the sewer system or holding tank.*
11. *No parking, maintenance or storage of commercial motor vehicles shall be permitted, except on a solid and impervious ground or floor surface, unless associated with agricultural or active on-site construction activities.*
12. *Disturbed land areas shall be stabilized with perennial grass or vegetative cover within 45 days after the completion or cessation of construction, except that during winter months other erosion control methods may be utilized until the growing season.*
13. *The replacement of underground storage tanks shall be permitted provided that all such replacements are of no greater volume, and are in compliance with the general ordinances of the City (Section 8-26).*

(3/18/15)