REPORT OF PLANNING BOARD ON PROPOSED ARTICLE MAKING REVISION TO THE ZONING BYLAW IN REGARDS TO THE WATER SUPPLY PROTECTION DISTRICT (WSPD)

(Article 24)

May 8, 2019 Annual Town Meeting

Article 24

Section 255-35

**Article 24.** To see if Town Meeting will amend Chapter 255 (the Zoning Bylaw) in Section 255-35A - Purposes, by clarifying the purposes of the District; in Section 255-35B – Scope of Authority, by clarifying that any use prohibited in an underlying zoning district is also prohibited in the Water Supply Protection District; in Section 255-35C – District Delineation, by revising the boundaries of the Water Supply Protection District; in Section 255-35E – Prohibited Uses by clarifying/modifying the prohibited uses; in Section 255-35F – Restricted Uses, by deleting item (1) in its entirety and inserting a new item (1) regarding restrictions on “exempt” activities under Section 255-84 and clarifying/modifying the restrictions on uses; in Section 255-35H – Special Permit Uses by clarifying that all uses requiring a Special Permit in the underlying zoning district also require a Special Permit in the Water Supply Protection District; and in Section 255-35H – Special Permit Uses in item (3)(a) by clarifying/revising the Special Permit Review Process to be followed for the Water Supply Protection; all as described in and as further articulated in “Appendix H”, or take any other action relative thereto.

The changes to be made in the Zoning Bylaw are as follows:

1. **Amend Section 255-35A - “Purposes” of the South Hadley Zoning Bylaw by inserting the phrase “and development” between the phrases “any use” and “of land or building” and adding additional purposes after the phrase “quantity of its water resources” such that Section 255-35A would read as follows:**

   “A. Purposes. The purpose of the Water Supply Protection District is to promote the health, safety and welfare of the community by protecting and preserving the surface and groundwater resources of the Town and the region from any use and development of land or buildings which may reduce the quality and quantity of its water resources; to protect, preserve and maintain the existing and potential groundwater supply, groundwater recharge area, and the groundwater tables; to protect, preserve and maintain potential sources of surface water supply and watershed areas for the public health and safety; and to prevent blight and the pollution of the environment."

2. **Amend Section 255-35B - “Scope of Authority” of the South Hadley Zoning Bylaw by inserting the following additional sentence:**

   “Uses that are prohibited in an underlying zoning district shall also be deemed prohibited in the Water Supply Protection District even if not stated as such in Section 255-35E herein.”
3. Amend Section 255-35C - “District Delineation”, paragraph (1) of the South Hadley Zoning Bylaw by inserting the phrase “(per MA-DEP 2003 SWAP, defined as Zone II)” after the word “primary” and the phrase “(per MA-DEP 2003 SWAP, defined as Zone III)” after the phrase “and secondary recharge areas” such that Section 255-35C would read as follows:

“(1) The Water Supply Protection District is herein established to include all lands within the Town of South Hadley lying within the primary (per MA-DEP 2003 SWAP, defined as Zone II) and secondary recharge areas (per MA-DEP 2003 SWAP, defined as Zone III) of groundwater aquifers and watershed areas of reservoirs which now or may in the future provide public water supply. The map entitled "South Hadley Water Protection Area" on file with the Town Clerk, delineates the boundaries of the district.”

4. Amend Section 255-35E – “Prohibited Uses”, paragraph (1)(a) of the South Hadley Zoning Bylaw by deleting the following:

“, which generate less than 20 kilograms or six gallons of hazardous waste per month may be allowed by special permit in accordance with Article IX of this bylaw”

5. Amend Section 255-35E – “Prohibited Uses”, paragraph (3) of the South Hadley Zoning Bylaw by replacing the word “automotive” with the phrase “motor vehicle”.

6. Amend Section 255-35E – “Prohibited Uses”, paragraph (4) of the South Hadley Zoning Bylaw by deleting the following:

“with the exception of the disposal of brush or stumps.”

7. Amend Section 255-35E – “Prohibited Uses”, paragraph (6) of the South Hadley Zoning Bylaw by adding the following phrase:

“And fertilizers”.

8. Amend Section 255-35E – “Prohibited Uses”, by adding a new paragraph (11) to read as follows:

“(11) Any use prohibited by 310 CMR 22.21(2)(a) which is not expressly prohibited in the above provisions 255-35E(1) through (10).”

9. Amend Section 255-35F – “Restricted Uses”, by deleting paragraph (1) including subparagraphs (1)(a) and (1)(b) in their entirety and inserting a new paragraph (1) read as follows:
(1) Earth Removal, Extraction, and/or Fill activities exempt from permitting under Section 255-84A shall nonetheless be restricted to ensure that any such removal or extraction does not extend closer than ten (10) feet above the historical high groundwater table. This subsection does not apply to installation or maintenance of structural foundations and utility conduits; nor shall it apply to maintenance of fresh water ponds provided all necessary permits, orders, or approvals required by local, state, or federal law are also obtained. This subsection does not apply to on-site sewage disposal systems; however the design, siting and installation depth shall be in compliance with Title V of the State Environmental Code and shall be subject to the regulatory authority of the Board of Health.

10. Amend Section 255-35F – “Restricted Uses”, paragraph (9) by inserting the word “covered” after the phrase “or in a freestanding” such that the paragraph would read as follows:

“(9) All liquid hazardous materials, as defined in MGL c. 21E, must be stored either in a freestanding container within a building or in a freestanding, covered container above ground with protection to contain a spill the size of the container’s total storage capacity.”

11. Amend Section 255-35F – “Restricted Uses”, by adding a new paragraph (10) to read as follows:

“(10) If it is determined event that 310 CMR 22.21(2)(b) imposes performance standards more stringent on land uses or activities than expressly stated in the above 255-35F(1) through (9), said 310 CMR 22.21(2)(b) performance standard shall be deemed to also apply to land uses and activities in the Water Supply Protection District even though said performance standard or restriction is not specified herein.”

12. Amend Section 255-35H – “Special Permit Uses”, by adding an introductory paragraph after the heading “Special permit uses” to read as follows:

“The provisions this subsection 255-35H herein shall apply to all uses for which a Special Permit is required regardless of whether the provisions below require a Special Permit or the use is listed as requiring a Special Permit in the underlying zoning districts in the Schedule of Use Regulations (Attachment A).”

13. Amend Section 255-35H – “Special Permit Uses”, by deleting the following portion of paragraph (1) – but retaining subparagraphs (a) through (c):

(1) Uses allowed by special permit. The following uses may be allowed by special permit obtained from the Planning Board:
14. Amend Section 255-35H – “Special Permit Uses”, by inserting a new introductory sentence for paragraph (1) to read as follows:

“(1) Uses allowed by special permit. In addition to the uses listed as requiring a Special Permit in the underlying zoning districts in the Schedule of Use Regulations (Attachment A), within the Water Supply Protection District, the following uses may only be allowed in the Water Supply Protection District by special permit obtained from the Planning Board:”

(NOTE REGARDING SECTION 255-35(H)(3)(a): The original and advertised article draft proposed a revision to 255-35H(3)(a) in regards to the requirement that the Board of Health, Conservation Commission, and District 2 Board of Water Commissioners vote on proposed Special Permits under the WSPD as opposed to allowing their staff to submit comments on their behalf. No resolution of this issue was reached; therefore, the Planning Board deleted any revisions to this particular item.)

OBJECTIVES: The proposed amendments seek to better protect the public water supply by clarifying the purposes and existing provisions, to make clear the limited scope of Earth Removal/Extraction/Fill activities which may be undertaken within the WSPD, to resolve any deficiencies in the WSPD in regards to the DEP Wellhead Protection requirements while not weakening locally desired protections, and to bring the boundaries of the WSPD into alignment with the most current Massachusetts DEP delineation of the Zone II and Zone III of the Dry Brook Hill Public Water Supply Well.

EXISTING PROVISIONS: The existing Section 255-35 of the Zoning Bylaw is provided in Attachment A.

SUMMARY: This article makes a variety of changes in Section 255-35 including the boundaries of the Water Supply Protection District (WSPD). This article is a companion to Article 23 and Article 25 of the Warrant.

BACKGROUND: In July 2018, Chicopee Concrete Services, Inc. submitted a Special Permit application to expand the earth removal/excavation operation they have located off Hadley Street within Zone II of the District 2 Dry Brook Public Water Supply Well. During the course of the public hearings, many residents of the Town, the Board of Health, Conservation Commission, District 2 Water Commissioners, and representatives of Mount Holyoke College expressed deep and passionate concerns regarding the potential impact which such an operation may have on the public water supply serving a third of South Hadley’s residents and several of our major developments and institutions. Additionally, during the review process, there were issues raised which suggested that some portions of the Water Supply Protection District were not strong enough nor clear enough to adequately serve the town. In January 2019, the applicant withdrew their application for the Special Permit.
REPORT OF PLANNING BOARD ON PROPOSED ARTICLE MAKING REVISION TO THE ZONING BYLAW IN REGARDS TO THE WATER SUPPLY PROTECTION DISTRICT (WSPD) (Article 24)

The Planning Board immediately initiated discussions to review the Water Supply Protection District (WSPD). This included a request that the District 2 Board of Water Commissioners review the WSPD provisions and provide the Planning Board with their suggestions on how to improve the Zoning Bylaw protections. Subsequently, Neva Tolopeko, Conservation Commission member offered a significant number of proposed edits to the WSPD Zoning Bylaw provisions and worked with the Planning Director to develop a set of recommendations which are largely reflected in Articles 23, 24, and 25. The Planning Board invited the members of the Board of Health, Conservation Commission, and District 2 Board of Water Commissioners to attend the March 25, 2019 Planning Board meeting to engage in a discussion as to a comprehensive set of recommended General and Zoning Bylaw revisions which would better protect the District 2 public water supply. One of the outcomes of the March 25, 2019 meeting was general agreement on the revisions which Ms. Tolopeko and the Planning Director had developed.

This current article #24 comprehensively revises various sections of 255-35 to fulfil the objectives stated above.

RELATIONSHIP TO MASTER PLAN: There is not a direct, clear relationship to the Master Plan, adopted in 2010. However, one of the core principles around which the Master Plan was organized was “Sustainability”:

Sustainability:
Promoting policies and actions that will meet the needs of the present without compromising the ability of future generations to meet their own needs. Sustainability should be understood broadly to include maintaining a long-range focus for Town actions and investments as well as the stewardship of the Town’s natural lands, parks, and public buildings. Sustainability also implies renewed attention to efficiency, or making the most of what we have, whether measured in infrastructure, energy, money, or time, or in natural resources like land and water.

Preservation of public drinking water is an essential need to maintain the community’s ability to sustain life and maintain development. There can be no debate that without public drinking water, South Hadley would be in dire straits. District 2 represents approximately a third of the Town’s population and is dependent on the aquifer supplying the District’s public well for its sustainability – in all respects.

This proposed article, particularly when taken in conjunction with Articles 22, 23, and 25, clearly furthers the principle of Sustainability as embodied in the Master Plan excerpt provided above.

Additionally, the Master Plan has five “Core Initiatives” that serve as the base for the Master Plan’s implementation strategies. Two of these are of particular relevance to this article as it seeks to better protect vital resources and enhance the Town’s regulatory tools:
REPORT OF PLANNING BOARD ON PROPOSED ARTICLE MAKING REVISION TO THE ZONING BYLAW IN REGARDS TO THE WATER SUPPLY PROTECTION DISTRICT (WSPD)
(Article 24)

Core Initiative 4: Secure open space in the range, river and rural areas

Goal: Assure robust conservation and stewardship of targeted open spaces in the Mt. Holyoke Range, the rural areas north of the Town Common, and along the Connecticut River.

Core Initiative 5: Updating the Regulatory Infrastructure to Support the Community's Desired Outcomes

Goal: Develop and adopt a modern, efficient and effective regulatory infrastructure that creates a framework for enhancing South Hadley’s community, economy, and aesthetic quality.

PUBLIC HEARING: The Planning Board conducted a public hearing on this article on Monday April 22, 2019. Generally, the comments received during the public hearing were supportive of the efforts to enhance protection of the Water Supply Protection District (WSPD). There was a suggestion that there is not a reason to change the “purpose” of the WSPD. However, there were more comments opposed to the proposed reduction in the boundaries of the WSPD. The essence of the comments opposed to the reduction was centered around concern that the 2003 Mass DEP Delineation of the Zone II and Zone III as well as a 2004 pumping study were based on outdated technology. The comments suggested that new studies, particularly taking in consideration the possible effects of climate change, could determine a large Zone II and/or Zone III were appropriate. It was noted that the 2003 Delineation appeared to encompass an area substantially larger than the area demonstrated by the pumping study as contributing to the Dry Brook Well. It was also noted that the District 2 Water Superintendent has stated that DEP has indicated that the Town only needs to protect the Zone II area. Additionally, it was suggested that, if future studies determine that a larger area is contributing to the Dry Brook Well and should be protected, then Town Meeting can once again amend the Zoning Bylaw to reflect the new study results. At present, no one has indicated that a new delineation study is underway or has been proposed for funding.

RECOMMENDATION: The Planning Board, at their April 22, 2019 meeting, by a 4 Yes and 1 No vote, voted to recommend adoption of this Article as presented. The Board member voting against the recommendations indicated that they supported the revisions to Section 255-35 except for the proposed reduction in the boundaries of the Water Supply Protection District. The Planning Board, at their April 29, 2019 meeting, by a 4 Yes and 1 No vote, voted to approve this report.

ANNOTATED PROVISIONS: An annotated version of the existing Section 255-35 of the Zoning Bylaw is in Attachment B. Letters and words proposed to be deleted are identified with “strike through markings” while letters and words proposed to be inserted are identified as “italicized, underlined”.
REPORT OF PLANNING BOARD ON PROPOSED ARTICLE MAKING REVISION TO
THE ZONING BYLAW IN REGARDS TO THE WATER SUPPLY PROTECTION DISTRICT
(WSPD)
(Article 24)

MAPS: The issue of the proposed reduction in the Water Supply Protection District boundaries has been discussed at several meetings including the April 22, 2019 public hearing. Therefore, the following are also provided as attachments to this report:

- Attachment C: Existing Water Supply Protection District Boundary
- Attachment D: 2003 MassDEP Delineation
- Attachment E: Excerpt of Map from 2004 USGS Pumping Study
- Attachment F: Composite Map which depicts (in a white boundary) the existing WSPD boundary and the 2003 Delineated Zone II and Zone III boundaries

NOTE: If this article is adopted as proposed, the WSPD boundaries will be reduced to the boundaries delineated by MassDEP for the Zone II and Zone III as shown in Attachment D
§ 255-35 Water Supply Protection District.

A. Purposes. The purpose of the Water Supply Protection District is to promote the health, safety and welfare of the community by protecting and preserving the surface and groundwater resources of the Town and the region from any use of land or buildings which may reduce the quality and quantity of its water resources.

B. Scope of authority. The Water Supply Protection District is an overlay district and shall be superimposed on the other districts established by this bylaw. All regulations of the Town of South Hadley Zoning Bylaw applicable to such underlying districts shall remain in effect, except that where the Water Supply Protection District imposes additional regulations, such regulations shall prevail.

C. District delineation.

(1) The Water Supply Protection District is herein established to include all lands within the Town of South Hadley lying within the primary and secondary recharge areas of groundwater aquifers and watershed areas of reservoirs which now or may in the future provide public water supply. The map entitled "South Hadley Water Protection Area" on file with the Town Clerk, delineates the boundaries of the district.

(2) Where the bounds delineated are in doubt or in dispute, the burden of proof shall be upon the owner(s) of the land in question to show where they should properly be located.

D. Permitted uses. The following uses are permitted within the Water Supply Protection District, provided that they comply with all applicable restrictions in this bylaw, including but not limited to Subsections E through H:

(1) Single-family residences, provided that where not serviced by public sewer, lot size shall be 10,000 square feet of lot area per bedroom or 40,000 square feet, whichever is greater. For cluster development, minimum lot size may be calculated on a net density for an entire development, which includes individual lots and common open space of varying size. Where serviced by public sewerage, minimum residential lot size shall comply with the residential requirement of the underlying district.

(2) Residential accessory uses, including garages, driveways, private roads, utility rights-of-way, and on-site wastewater disposal systems.

(3) Agricultural uses such as farming, grazing and horticulture.

(4) Forestry and nursery uses.

(5) Outdoor recreational uses, including fishing, boating and play areas.

(6) Conservation of water, plants and wildlife.
Attachment A

Existing Provisions Section 255-35 Water Supply Protection District

(7) Wildlife management areas.

(8) Excavation for earth removal, provided that the requirements of Subsection F of this section and § 255-84 are met, and an earth removal permit is granted by the Building Commissioner.

(9) Wireless communications facilities when approved pursuant to §§ 255-20 and 255-40, subject to the conditions of the Planning Board as set forth in the special permit decision.

E. Prohibited uses. The following uses are prohibited within the Water Supply Protection District:

(1) Business and industrial uses, not agricultural, including but not limited to metal plating, chemical manufacturing, wood preserving, furniture stripping, dry cleaning and auto body repair, which generate, use, treat, process, store or dispose of hazardous wastes, except for the following:

(a) Very small quantity generators of hazardous waste, as defined by 310 CMR 30.00, which generate less than 20 kilograms or six gallons of hazardous waste per month may be allowed by special permit in accordance with Article IX of this bylaw;

(b) Household hazardous waste collection centers or events operated pursuant to 310 CMR 30.390;

(c) Waste oil retention facilities required by MGL c. 21, § 52A; and

(d) Treatment works approved by the Massachusetts Department of Environmental Protection and designed in accordance with 314 CMR 5.00 for the treatment of contaminated ground and surface waters.

(2) Business or industrial uses, not agricultural, which dispose of process wastewaters on-site.

(3) Trucking terminals, bus terminals, car washes, motor vehicle gasoline sales, automotive service and repair shops, commercial fuel oil storage and sales.

(4) Solid waste landfills, dumps, auto recycling, auto graveyards, junk and salvage yards, landfilling or storage of sludge and septage, with the exception of the disposal of brush or stumps.

(5) Storage of liquid petroleum products of any kind, except for the following:

(a) Storage which is incidental to: 1] normal household use and outdoor maintenance or the heating of a structure; 2] waste oil retention facilities required by MGL c. 21, § 52A; 3] emergency generators required by statute, rule or regulation; or 4] treatment works approved by the Massachusetts Department of Environmental Protection designed in accordance with 314 CMR 5.00 for the treatment of contaminated ground or surface waters; provided that such storage shall be in a freestanding aboveground container.
Attachment A

Existing Provisions Section 255-35 Water Supply Protection District

within a structure or within the basement of a structure, within a diked, impermeable area sufficient to contain the volume of the tank plus 10% to prevent spills or leaks from reaching groundwater, and provided that the storage tank and piping must comply with all applicable provisions of 527 CMR 1.00, the Massachusetts Board of Fire Prevention regulations.

(b) Replacement of storage tanks or systems for the keeping, dispensing or storing of gasoline, which existed at the time of adoption of this bylaw, provided that:

[1] All such replacement storage tanks or systems shall be located underground as required by Massachusetts Board of Fire Prevention regulations 527 CMR 14;

[2] All such storage systems be protected by one of the secondary containment systems specified in Massachusetts Board of Fire Prevention regulations 527 CMR 9.08(3);

[3] The head of the respective Fire Department may deny an application for tank replacement, or approve it subject to conditions, if he or she determines that it constitutes a danger to public or private water supplies in accordance with 527 CMR 9.26(4)(d). Replacement of all other storage tanks for liquid petroleum products other than gasoline must be above ground in accordance with Subsection E(5)(a).

(6) Outdoor storage of salt, deicing materials, pesticides or herbicides.

(7) Dumping or disposal on the ground, in water bodies, or in residential septic systems of any toxic chemical, including but not limited to septic system cleaners which contain toxic chemicals such as methylene chloride and 1-1-1 trichlorethene, or other household hazardous wastes. (See the list of prohibited chemicals at the Board of Health or Town Clerk's office.)

(8) Stockpiling and disposal of snow or ice removed from highways and streets located outside of the Water Supply Protection District that contains sodium chloride, calcium chloride, chemically treated abrasives or other chemicals used for snow and ice removal.

(9) Wastewater treatment works subject to 314 CMR 5.00 (those treatment works which discharge over 15,000 gallons per day to the ground), except the following:

(a) The replacement or repair of an existing system(s) that will not result in a design capacity greater than the design capacity of the existing system(s);

(b) The replacement of an existing subsurface sewage disposal system(s) with wastewater treatment works that will not result in a design capacity greater than the design capacity of the existing system(s);

(c) Treatment works designed for the treatment of contaminated ground or surface waters subject to 314 CMR 5.00.

F. Restricted uses. The following uses are restricted within the Water Supply Protection District:
Attachment A

Existing Provisions Section 255-35 Water Supply Protection District

(1) Excavation for removal of earth, loam, sand, gravel and other soils or mineral substances shall not extend closer than five feet above the historical high groundwater table (as determined from on-site 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. This subsection shall not apply to excavations incidental to permitted uses, including but not limited to providing for the installation or maintenance of structural foundations, freshwater ponds, utility conduits or on-site sewage disposal.

   (a) The access road(s) to extractive operation sites shall include a gate or other secure mechanism to restrict public access to the site.

   (b) Upon completion of earth removal operations, all altered areas shall be restored with topsoil and vegetative plantings. All fine materials, such as clays and silts, removed as part of the earth removal operation and leftover as by-products shall be disposed of off-site to prevent damage to aquifer recharge characteristics.

(2) 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 which may be closed to the public in winter.

(3) 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 covered and located on a paved surface, with berms, within a structure designed to prevent the generation and escape of contaminated run-off leachate.

(4) Fertilizers, pesticides, herbicides, lawn care chemicals or other leachable materials for agricultural and/or commercial applicator use shall be used in conformance with the Massachusetts Pesticide Control Act, MGL c. 132B, regulations promulgated by the Massachusetts Pesticide Bureau (333 CMR 1 through 14), and the manufacturer's label instructions. All other reasonable precautions to minimize adverse impacts on surface and groundwater should be used.

(5) Fertilizers, pesticides, herbicides, lawn care chemicals and other leachable materials for non-agricultural and non-commercial applicator use shall be used in accordance with the Lawn Care Regulations of the Massachusetts Pesticide Board 333 CMR 10.03 as amended, according to the manufacturer's label instructions and all other necessary precautions to minimize adverse impacts on surface and groundwater.

(6) On-site sewage disposal systems shall not be installed without additional measures imposed by the Board of Health. (See Board of Health regulations.)

(7) The storage of commercial fertilizers and soil conditioners shall be within structures that prevent the generation and escape of contaminated run-off or leachate.

(8) To the extent feasible, all new permanent animal manure storage areas shall be covered and/or contained to prevent the generation and escape of contaminated run-off or leachate.

(9) All liquid hazardous materials, as defined in MGL c. 21E, must be stored either in a
Attachment A

Existing Provisions Section 255-35 Water Supply Protection District

freestanding container within a building or in a freestanding container above ground with protection to contain a spill the size of the container's total storage capacity.

G. Drainage.

(1) For commercial and industrial uses, to the extent feasible, run-off from the impervious surfaces shall be recharged on the site by being diverted toward areas covered with vegetation for surface infiltration. Such run-off shall not be discharged directly to rivers, streams or other surface water bodies. Dry wells shall be used only where other methods are infeasible, and shall be preceded by oil, grease and sediment traps to facilitate removal of contamination.

(2) All recharge areas shall be permanently maintained in full working order by the owner(s).

H. Special permit uses.

(1) Uses allowed by special permit. The following uses may be allowed by special permit obtained from the Planning Board:

(a) Commercial, industrial, governmental or educational uses which are allowed in the underlying district, and which are not prohibited in Subsection E.

(b) Any enlargement, intensification, change of use or alteration of an existing commercial or industrial use.

(c) The rendering impervious of more than 15% or 2,500 square feet of any lot, provided that a system for artificial recharge of precipitation to groundwater is developed, which shall not result in degradation of groundwater. (See Subsection G above.)

(2) Requirements for special permit in the Water Supply Protection District.

(a) The applicant shall file six copies of a plan prepared by a qualified professional with the special permit granting authority. In addition to those rules and regulations contained in the special permit application (Form SP), the plan shall include:


[2] Provisions to control soil erosion and sedimentation, soil compaction, and to prevent seepage from sewer pipes.

(b) In addition, the applicant shall provide, at a minimum, the following information where pertinent:

[1] A complete list of chemicals, pesticides, fuels and other potentially hazardous materials to be used or stored on the premises in quantities greater than those associated with normal household use.

[2] Those businesses using or storing such hazardous materials shall file a hazardous
Attachment A

Existing Provisions Section 255-35 Water Supply Protection District

materials management plan with the Planning Board, Fire Chief and Board of Health, which shall include:

[a]  Provisions to protect against the discharge of hazardous materials or wastes to the environment due to spillage.

[b]  Accidental damage, corrosion, leakage or vandalism, including spill containment and clean-up procedures.

[c]  Provisions for indoor, secured storage of hazardous materials and wastes with impervious floor surfaces.

[d]  Evidence of compliance with the regulations of the Massachusetts Hazardous Waste Management Act, 310 CMR 30, including obtaining an EPA identification number from the Massachusetts Department of Environmental Protection.

(3) Additional procedures for special permits in the Water Supply Protection District:

(a) The special permit granting authority shall follow all special permit procedures contained in Article IX of this bylaw. In addition, the special permit granting authority shall distribute copies of all application materials to the Board of Health, the Conservation Commission and the Water Commissioners, each of which shall review the application and, following a vote, shall submit recommendations and comments to the special permit granting authority. Failure of boards to make recommendations within 35 days of distribution of the applications shall be deemed to be lack of opposition.

(b) The special permit granting authority may grant the required special permit only upon finding that the proposed use meets the following standards and those specified in Article IX of this bylaw. The proposed use must:

[1] In no way, during construction or thereafter, adversely affect the existing or potential quality or quantity of water that is available in the Water Supply Protection District; and

[2] Be designed to avoid substantial disturbance of the soils, topography, drainage, vegetation and other water-related natural characteristics of the site to be developed.

(c) The special permit granting authority shall not grant a special permit under this section unless the petitioner's application materials include, in the Board's opinion, sufficiently detailed, definite and credible information to support positive findings in relation to the standards given in this section.

I. Nonconforming use. Nonconforming uses which were lawfully existing, begun or in receipt of a building or special permit prior to the first publication of notice of public hearing for this bylaw may be continued. Such nonconforming uses may be extended or altered, as specified in MGL c. 40A, § 6, provided that there is a finding by the Planning Board that such change does not increase the danger of surface or groundwater pollution from such use.
§ 255-35 Water Supply Protection District.

A. Purposes. The purpose of the Water Supply Protection District is to promote the health, safety and welfare of the community by protecting and preserving the surface and groundwater resources of the Town and the region from any use and development of land or buildings which may reduce the quality and quantity of its water resources; to protect, preserve and maintain the existing and potential groundwater supply, groundwater recharge area, and the groundwater tables; to protect, preserve and maintain potential sources of surface water supply and watershed areas for the public health and safety; and to prevent blight and the pollution of the environment.

B. Scope of authority. The Water Supply Protection District is an overlay district and shall be superimposed on the other districts established by this bylaw. All regulations of the Town of South Hadley Zoning Bylaw applicable to such underlying districts shall remain in effect, except that where the Water Supply Protection District imposes additional regulations, such regulations shall prevail. Uses that are prohibited in an underlying zoning district shall also be deemed prohibited in the Water Supply Protection District even if not stated as such in Section 255-35E herein.

C. District delineation.
   (1) The Water Supply Protection District is herein established to include all lands within the Town of South Hadley lying within the primary (per MA-DEP 2003 SWAP, defined as Zone II) and secondary recharge areas (per MA-DEP 2003 SWAP, defined as Zone III) of groundwater aquifers and watershed areas of reservoirs which now or may in the future provide public water supply. The map entitled "South Hadley Water Protection Area" on file with the Town Clerk, delineates the boundaries of the district.
   (2) Where the bounds delineated are in doubt or in dispute, the burden of proof shall be upon the owner(s) of the land in question to show where they should properly be located.

D. Permitted uses. The following uses are permitted within the Water Supply Protection District, provided that they comply with all applicable restrictions in this bylaw, including but not limited to Subsections E through H:
   (1) Single-family residences, provided that where not serviced by public sewer, lot size shall be 10,000 square feet of lot area per bedroom or 40,000 square feet, whichever is greater. Additionally, no more than 25% of a lot’s natural vegetation shall be removed nor shall greater than 12.5% of a lot be covered in impervious surface. For cluster development, minimum lot size may be calculated on a net density for an entire development, which includes individual lots and common open space of varying size. Where serviced by public sewerage, minimum residential lot size shall comply with the residential requirement of the underlying district.
   (2) Residential accessory uses, including garages, driveways, private roads, utility rights-of-way, and on-site wastewater disposal systems.
   (3) Agricultural uses such as farming, grazing and horticulture.
Attachment B

Annotated Provisions of Section 255-35

(4) Forestry and nursery uses.
(5) Outdoor recreational uses, including fishing, boating and play areas.
(6) Conservation of water, plants and wildlife.
(7) Wildlife management areas.
(8) Excavation for earth removal, provided that the requirements of Subsection F of this section and § 255-84 are met, and an earth removal permit is granted by the Building Commissioner. Earth Removal, Excavation, and/or Fill Activities as defined in § 255-84 for which a Permit from the Building Commissioner is not required due to the activity being part of an exempt development under Section 255-84A(2); provided the associated excavation/earth removal shall not be nearer than 10 feet of the seasonal high groundwater.

(NOTE: The above changes to 255-35D(1) are proposed in Article #25, not Article #24.)

(NOTE: The above changes to 255-35D(8) are by Article #23, not Article #24.)

(9) Wireless communications facilities when approved pursuant to §§ 255-20 and 255-40, subject to the conditions of the Planning Board as set forth in the special permit decision.

E. Prohibited uses. The following uses are prohibited within the Water Supply Protection District:

(1) Business and industrial uses, not agricultural, including but not limited to metal plating, chemical manufacturing, wood preserving, furniture stripping, dry cleaning and auto body repair, which generate, use, treat, process, store or dispose of hazardous wastes, except for the following:
   (a) Very small quantity generators of hazardous waste, as defined by 310 CMR 30.00, which generate less than 20 kilograms or six gallons of hazardous waste per month may be allowed by special permit in accordance with Article IX of this bylaw;
   (b) Household hazardous waste collection centers or events operated pursuant to 310 CMR 30.390; 
   (c) Waste oil retention facilities required by MGL c. 21, § 52A; and 
   (d) Treatment works approved by the Massachusetts Department of Environmental Protection and designed in accordance with 314 CMR 5.00 for the treatment of contaminated ground and surface waters.

(2) Business or industrial uses, not agricultural, which dispose of process wastewaters on-site.

(3) Trucking terminals, bus terminals, car washes, motor vehicle gasoline sales, automotive motor vehicle service and repair shops, commercial fuel oil storage and sales.

(4) Solid waste landfills, dumps, auto recycling, auto graveyards, junk and salvage yards, landfilling or storage of sludge and septage, with the exception of the disposal of brush or stumps.

(5) Storage of liquid petroleum products of any kind, except for the following:
   (a) Storage which is incidental to: 1) normal household use and outdoor...
Annotated Provisions of Section 255-35

maintenance or the heating of a structure; 2] waste oil retention facilities required by MGL c. 21, § 52A; 3] emergency generators required by statute, rule or regulation; or 4] treatment works approved by the Massachusetts Department of Environmental Protection designed in accordance with 314 CMR 5.00 for the treatment of contaminated ground or surface waters; provided that such storage shall be in a freestanding aboveground container within a structure or within the basement of a structure, within a diked, impermeable area sufficient to contain the volume of the tank plus 10% to prevent spills or leaks from reaching groundwater, and provided that the storage tank and piping must comply with all applicable provisions of 527 CMR 1.00, the Massachusetts Board of Fire Prevention regulations.

(b) Replacement of storage tanks or systems for the keeping, dispensing or storing of gasoline, which existed at the time of adoption of this bylaw, provided that:

[1] All such replacement storage tanks or systems shall be located underground as required by Massachusetts Board of Fire Prevention regulations 527 CMR 14;

[2] All such storage systems be protected by one of the secondary containment systems specified in Massachusetts Board of Fire Prevention regulations 527 CMR 9.08(3);

[3] The head of the respective Fire Department may deny an application for tank replacement, or approve it subject to conditions, if he or she determines that it constitutes a danger to public or private water supplies in accordance with 527 CMR 9.26(4)(d). Replacement of all other storage tanks for liquid petroleum products other than gasoline must be above ground in accordance with Subsection E(5)(a).

(6) Outdoor storage of salt, deicing materials, pesticides or herbicides. and fertilizers.

(7) Dumping or disposal on the ground, in water bodies, or in residential septic systems of any toxic chemical, including but not limited to septic system cleaners which contain toxic chemicals such as methylene chloride and 1-1-1 trichlorethane, or other household hazardous wastes. (See the list of prohibited chemicals at the Board of Health or Town Clerk's office.)

(8) Stockpiling and disposal of snow or ice removed from highways and streets located outside of the Water Supply Protection District that contains sodium chloride, calcium chloride, chemically treated abrasives or other chemicals used for snow and ice removal.

(9) Wastewater treatment works subject to 314 CMR 5.00 (those treatment works which discharge over 15,000 gallons per day to the ground), except the following:

(a) The replacement or repair of an existing system(s) that will not result in a design capacity greater than the design capacity of the existing system(s);

(b) The replacement of an existing subsurface sewage disposal system(s) with wastewater treatment works that will not result in a design capacity greater than the design capacity of the existing system(s);

(c) Treatment works designed for the treatment of contaminated ground or surface waters subject to 314 CMR 5.00.

(10) Major and Other Earth Removal, Excavation and/or Fill activities (as defined in Section 255-84 including “mining” of gravel, soil, loam, sand and/or other minerals).

(11) Any use prohibited by 310 CMR 22.21(2)(a) which is not expressly prohibited in
Attachment B

Annotated Provisions of Section 255-35

the above provisions 255-35E(1) through (10).

( NOTE: The above addition of 255-35E(10) is by Article #23, not Article #24.)

F. Restricted uses. The following uses are restricted within the Water Supply Protection District:

1) Excavation for removal of earth, loam, sand, gravel and other soils or mineral substances shall not extend closer than five feet above the historical high groundwater table (as determined from on-site 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. This subsection shall not apply to excavations incidental to permitted uses, including but not limited to providing for the installation or maintenance of structural foundations, freshwater ponds, utility conduits or on-site sewage disposal.

(a) The access road(s) to extractive operation sites shall include a gate or other secure mechanism to restrict public access to the site.

(b) Upon completion of earth removal operations, all altered areas shall be restored with topsoil and vegetative plantings. All fine materials, such as clays and silts, removed as part of the earth removal operation and leftover as by-products shall be disposed of off-site to prevent damage to aquifer recharge characteristics.

1) Earth Removal, Extraction, and/or Fill activities exempt from permitting under Section 255-84A shall nonetheless be restricted to ensure that any such removal or extraction does not extend closer than ten (10) feet above the historical high groundwater table. This subsection does not apply to installation or maintenance of structural foundations and utility conduits; nor shall it apply to maintenance of fresh water ponds provided all necessary permits, orders, or approvals required by local, state, or federal law are also obtained. This subsection does not apply to on-site sewage disposal systems; however the design, siting and installation depth shall be in compliance with Title V of the State Environmental Code and shall be subject to the regulatory authority of the Board of Health.

2) 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 which may be closed to the public in winter.

3) 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 covered and located on a paved surface, with berms, within a structure designed to prevent the generation and escape of contaminated run-off leachate.

4) Fertilizers, pesticides, herbicides, lawn care chemicals or other leachable materials for agricultural and/or commercial applicator use shall be used in conformance with the Massachusetts Pesticide Control Act, MGL c. 132B, regulations promulgated by the Massachusetts Pesticide Bureau (333 CMR 1 through 14), and the manufacturer's label instructions. All other reasonable precautions to minimize adverse impacts on surface and groundwater should be used.

5) Fertilizers, pesticides, herbicides, lawn care chemicals and other leachable materials for non-agricultural and non-commercial applicator use shall be used in accordance with the Lawn Care Regulations of the Massachusetts Pesticide Board...
Attachment B

Annotated Provisions of Section 255-35

333 CMR 10.03 as amended, according to the manufacturer's label instructions and all other necessary precautions to minimize adverse impacts on surface and groundwater.

(6) On-site sewage disposal systems shall not be installed without additional measures imposed by the Board of Health. (See Board of Health regulations.)

(7) The storage of commercial fertilizers and soil conditioners shall be within structures that prevent the generation and escape of contaminated run-off or leachate.

(8) To the extent feasible, all new permanent animal manure storage areas shall be covered and/or contained to prevent the generation and escape of contaminated run-off or leachate.

(9) All liquid hazardous materials, as defined in MGL c. 21E, must be stored either in a freestanding container within a building or in a freestanding covered container above ground with protection to contain a spill the size of the container's total storage capacity.

(10) If it is determined that 310 CMR 22.21(2)(b) imposes performance standards more stringent on land uses or activities than expressly stated in the above 255-35F(1) through (9), said 310 CMR 22.21(2)(b) performance standard shall be deemed to also apply to land uses and activities in the Water Supply Protection District even though said performance standard or restriction is not specified herein.

G. Drainage.

(1) For commercial and industrial uses, to the extent feasible, run-off from the impervious surfaces shall be recharged on the site by being diverted toward areas covered with vegetation for surface infiltration. Such run-off shall not be discharged directly to rivers, streams or other surface water bodies. Dry wells shall be used only where other methods are infeasible, and shall be preceded by oil, grease and sediment traps to facilitate removal of contamination.

(2) All recharge areas shall be permanently maintained in full working order by the owner(s).

H. Special permit uses. The provisions this subsection 255-35H herein shall apply to all uses for which a Special Permit is required regardless of whether the provisions below require a Special Permit or the use is listed as requiring a Special Permit in the underlying zoning districts in the Schedule of Use Regulations (Attachment A).

(1) Uses allowed by special permit. The following uses may be allowed by special permit obtained from the Planning Board:

(i) Uses allowed by special permit. In addition to the uses listed as requiring a Special Permit in the underlying zoning districts in the Schedule of Use Regulations (Attachment A), within the Water Supply Protection District, the following uses may only be allowed in the Water Supply Protection District by special permit obtained from the Planning Board:

(a) Commercial, industrial, governmental or educational uses which are allowed in the underlying district, and which are not prohibited in Subsection E.

(b) Any enlargement, intensification, change of use or alteration of an existing commercial or industrial use.
Attachment B

Annotated Provisions of Section 255-35

(c) The rendering impervious of more than 15% or 2,500 square feet of any lot, provided that a system for artificial recharge of precipitation to groundwater is developed, which shall not result in degradation of groundwater. (See Subsection G above.)

(2) Requirements for special permit in the Water Supply Protection District.
(a) The applicant shall file six copies of a plan prepared by a qualified professional with the special permit granting authority. In addition to those rules and regulations contained in the special permit application (Form SP), the plan shall include:
1. Drainage recharge features and provisions to prevent loss of recharge.
2. Provisions to control soil erosion and sedimentation, soil compaction, and to prevent seepage from sewer pipes.

(b) In addition, the applicant shall provide, at a minimum, the following information where pertinent:
1. A complete list of chemicals, pesticides, fuels and other potentially hazardous materials to be used or stored on the premises in quantities greater than those associated with normal household use.
2. Those businesses using or storing such hazardous materials shall file a hazardous materials management plan with the Planning Board, Fire Chief and Board of Health, which shall include:
   a. Provisions to protect against the discharge of hazardous materials or wastes to the environment due to spillage.
   b. Accidental damage, corrosion, leakage or vandalism, including spill containment and clean-up procedures.
   c. Provisions for indoor, secured storage of hazardous materials and wastes with impervious floor surfaces.
   d. Evidence of compliance with the regulations of the Massachusetts Hazardous Waste Management Act, 310 CMR 30, including obtaining an EPA identification number from the Massachusetts Department of Environmental Protection.

(3) Additional procedures for special permits in the Water Supply Protection District:
(a) The special permit granting authority shall follow all special permit procedures contained in Article IX of this bylaw. In addition, the special permit granting authority shall distribute copies of all application materials to the Board of Health, the Conservation Commission and the Water Commissioners, each of which shall review the application and, following a vote, shall submit recommendations and comments to the special permit granting authority. Failure of boards to make recommendations within 35 days of distribution of the applications shall be deemed to be lack of opposition.

(b) The special permit granting authority may grant the required special permit only upon finding that the proposed use meets the following standards and those specified in Article IX of this bylaw. The proposed use must:
1. In no way, during construction or thereafter, adversely affect the existing or potential quality or quantity of water that is available in the Water Supply Protection District; and
2. Be designed to avoid substantial disturbance of the soils, topography,
Attachment B

Annotated Provisions of Section 255-35
drainage, vegetation and other water-related natural characteristics of the
site to be developed.

(c) The special permit granting authority shall not grant a special permit under
this section unless the petitioner’s application materials include, in the Board’s
opinion, sufficiently detailed, definite and credible information to support
positive findings in relation to the standards given in this section.

I. Nonconforming use. Nonconforming uses which were lawfully existing, begun or in
receipt of a building or special permit prior to the first publication of notice of public
hearing for this bylaw may be continued. Such nonconforming uses may be extended or
altered, as specified in MGL c. 40A, § 6, provided that there is a finding by the Planning
Board that such change does not increase the danger of surface or groundwater pollution
from such use.
Water Supply Protection District Boundary as Established in 1992 with current underlying Zoning

Source: South Hadley Planning & Conservation Department
ZONE I / ZONE II / ZONE III DELINEATION &
POTENTIAL CONTAMINATION SOURCE LOCATION

SOUTH HADLEY FIRE DISTRICT NO. 2
DRY BROOK WELL, 1275001-04G
SOUTH HADLEY, MASSACHUSETTS

Municipality
South Hadley
1275001

Name of Water Supply
Dry Brook Well
South Hadley Fire District No. 2
1275001-04G
Massachusetts DEP
SWAP Zone II
Mount Holyoke, Mass.
None
July 2003
42.28209 / 72.59633
Date: 10/7/03

Name of Water Supply
Water Purveyor: William Bilbich

Source Identification
Project Proponent: William Bilbich

Title of Study / Purpose of Delineation:
USGS Quadrangle Name
Consultant:

Date of Study Submittal
Latitude / Longitude of Source

Signatures:
Water Purveyor: William Bilbich

Consultant:

Project Proponent: William Bilbich

Regional Water Supply Chief:

2000 0 2000 Feet
Topographic Contour Interval = 3 Meters
Scale 1:25000
Figure 23. Zone of contribution and associated watershed areas contributing water to the Dry Brook well at a pumping rate of 122.2 cubic feet per minute, Hadley, Holyoke, and South Hadley, Massachusetts.

Zones II and III and WSPD

South Hadley, MA

1 inch = 4000 Feet

Data shown on this map is provided for planning and informational purposes only. The municipality and CAI Technologies are not responsible for any use for other purposes or misuse or misrepresentation of this map.