REPORT OF PLANNING BOARD ON PROPOSED ARTICLE MAKING
REVISON TO THE STORMWATER MANAGEMENT BYLAW IN REGARDS TO
THE WATER SUPPLY PROTECTION DISTRICT AND STORMWATER RUNOFF
(Article 22)
May 8, 2018 Annual Town Meeting

Article 22

Section 200-20

Article 22. To see if Town Meeting will amend Chapter 200 (the Stormwater Management Bylaw) Section 200-20 in regards to Specific Design Criteria to restrict the discharge of runoff originating in the Zone II or Zone III of the Dry Brook Public Water Supply Well from being diverted to places outside of said Zone II or Zone III and as further articulated in “Appendix F”, or take any other action relative thereto.

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

1. Amend Section 200-20 - “Specific design criteria” of the South Hadley Stormwater Management Bylaw by inserting a new paragraph J would read as follows:

   J. Protection of the public water supply (including retention of the recharge of the groundwater supply) is vital to the health and safety of the Town. Accordingly, the Stormwater management system and site grading must be designed to maximize recharge of Stormwater runoff into the ground water. No runoff originating within the DEP Zone II or DEP Zone III of the Dry Brook Public Water Supply Well is to be diverted out of said Zone II and Zone III, unless the Planning Board, based on the recommendations of an independent peer review engineer, determines that such 100% retention of runoff is not feasible due to the unique characteristics of the project site, grants a waiver to this requirement and the applicant provides what the Planning Board determines to be reasonable and appropriate mitigation.

OBJECTIVE: The proposed amendment seeks to reinforce efforts to protect and maintain the public water supply.

EXISTING PROVISIONS: The existing Section 200-20 of the Stormwater Management Bylaw is in Attachment A.

SUMMARY: This article makes changes in Section 200-20. The proposed amendment is a new design criteria that would apply to anyone proposing to disturb an acre or more of land within the area covered by Zone II or Zone III of the Dry Brook Public Water Supply Well.

BACKGROUND: In the course of developing revisions to the Water Supply Protection District of the Zoning Bylaw (Chapter 255-35 – see articles 23, 24, and 25), it was suggested by a member of the Conservation Commission that runoff originating from developments in Zone II and Zone III should be retained within Zone II and Zone III. Current regulations require runoff to be retained on the same property, but this does not mean it would be retained within the Zone II and III if the parcel was not totally inside the Zones. This amendment will lessen the likelihood
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that development will adversely impact recharge of the groundwater supply serving the District 2
public water supply wells.

A copy of the Zone II and Zone III area is provided in Attachment B.

RELATIONSHIP TO MASTER PLAN: There is not a direct, clear relationship to the Master
Plan, adopted in 2010. However, the Master Plan promotes sustainable development in a broad
sense but also specifically suggests that the community should minimize the extent to which
development activities alter “natural systems”. Nothing can be more natural than the way that
Stormwater runoff replenishes the groundwater supply which serves a third of South Hadley’s
residents. Similarly, protecting this replenishment in quality and quantity is essential to the
sustainability of South Hadley. This amendment will further the efforts promoted in the Master
Plan to make South Hadley more sustainable and protect our natural resources.

PUBLIC HEARING: The Planning Board conducted a public hearing on this article on
Monday April 22, 2019. No comments or questions were voiced regarding this Article.

RECOMMENDATION: The Planning Board, at their April 22, 2019 meeting, unanimously
voted to recommend adoption of this Article as presented. The Planning Board, at their April 29,
2019 meeting, unanimously voted to approve this report.

ANNOTATED PROVISIONS: An annotated version of the existing provisions is provided in
Attachment C. 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”.
§ 200-20 **Specific design criteria.**
Additional policy, criteria, and information, including specifications and design standards, may be found in the Stormwater Design Manual and the erosion and sediment control guidance documents and may also be utilized.

A. Infiltration systems.

(1) Infiltration systems shall be equipped with clean stone and/or filter fabric adjacent to the soil or other sediment removal mechanisms;

(2) Infiltration systems greater than three feet deep shall be located at least 10 feet from basement walls;

(3) Due to the potential for groundwater contamination from dry wells, they shall not be an acceptable method for management of runoff containing pollutants;

(4) Infiltration systems designed to handle runoff from commercial or industrial impervious parking areas shall be a minimum of 100 feet from any drinking water supply well;

(5) Infiltration systems shall not be used as sediment control basins during construction unless specific plans are included to restore or improve the basin surface;

(6) Infiltration basins shall be constructed with a three-foot minimum separation between the bottom of the structure and the seasonal high groundwater elevation, as determined by a certified soil evaluator; and

(7) Provisions shall be made for safe overflow passage, in the event of a storm which exceeds the capacity of an infiltration system.

B. Retention and detention ponds shall be designed and constructed in accordance with the criteria set forth in the stormwater design manual.

C. The applicant shall give consideration in any plan to incorporating the use of natural topography and land cover such as natural swales and depressions as they exist prior to development to the degree that they can accommodate the additional flow of water.

D. The Planning Board shall give preference to the use of swales in place of the traditional use of curbs and gutters based on a case-by-case review of stormwater management plans by the Town Engineer and Planning Board.

E. The applicant shall consider public safety in the design of any stormwater facilities. The banks of detention, retention, and infiltration basins shall be sloped at a gentle grade into the water as a safeguard against personal injury, to encourage the growth of vegetation and to allow the alternate flooding and exposure of areas along the shore. Basins shall have a 4:1 slope to a depth two feet below the control elevation. Side slopes must be stabilized and planted with vegetation to prevent erosion and provide pollutant removal. The banks of detention and retention areas shall be designed with sinuous rather than
Attachment A

Existing Provisions of Section 200-20

straight shorelines so that the length of the shoreline is maximized, thus offering more space for the growth of vegetation.

F. Where a stormwater management plan involves direction of some or all runoff off of the site, it shall be the responsibility of the applicant to obtain from adjacent property owners any easements or other necessary property interests concerning flowage of water. Approval of a stormwater management plan does not create or affect any such rights.

G. All applicants for projects which involve the storage or use of hazardous or toxic chemicals, materials or waste shall incorporate handling and storage best management practices that prevent such chemicals, materials and waste from contaminating runoff discharged from a site into infiltration systems, receiving water bodies or storm drains, and shall include a list of such chemicals, materials and waste and their amounts in the application.

H. Runoff from parking lots shall be treated by oil and water separators or other controls to remove oil and sediment;

I. The basic design criteria methodologies, and construction specifications, subject to the approval of the Planning Board and Town Engineer, shall be those generally found in the most current edition of the stormwater design manual.
LEGEND

Zone I Boundary
Zone II Boundary
Zone III Boundary
Public Water Supply Wells
Potential Contamination Source: Sand and Gravel Mining

Municipality
PWS Identification #
Name of Water Supply
Water Purveyor
Source Identification
Project Proponent
Title of Study / Purpose of Delineation:
USGS Quadrangle Name
Consultant
Date of Study Submittal
Latitude / Longitude of Source
Signatures:
Water Purveyor: William Selbach

Consultant:
Project Proponent: William Selbach
Regional Water Supply Chief:

South Hadley
1275001
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

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

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§ 200-20 Specific design criteria.
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D. The Planning Board shall give preference to the use of swales in place of the traditional use of curbs and gutters based on a case-by-case review of stormwater management plans by the Town Engineer and Planning Board.

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Attachment C

Annotated Section 200-20

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