



Water Supply District of Acton

693 MASSACHUSETTS AVENUE
P.O. BOX 953
ACTON, MASSACHUSETTS 01720

TELEPHONE (978) 263-9107

FAX (978) 264-0148

WLMAC MEETING NOTES OF JANUARY 28, 2014

Documents: Any documents utilized during this meeting are either included in these minutes and/or can be examined at the District offices during regular business hours.

Present: Matt Mostoller (AWD Environmental Compliance Manager), John Cipar, Paul Malchodi, Barry Rosen.

Note Taker(s): Paul Malchodi, Barry Rosen

Chairperson: Barry Rosen

Called To Order: The chairperson called the meeting to order on Tuesday, January 28, 2014 at 7:40 PM ET. A quorum was present.

New Business:

1. **Approval of Minutes:** Mr. Malchodi moves and Mr. Cipar seconds a motion that the minutes of December 10, 2013 be accepted as amended. The motion passes unanimously.
2. **Date/Time of Next Meeting:**
 - 2.1. The time of the next regularly scheduled meeting of the committee was confirmed by the members to be on Tuesday, February 11, 2014 at the AWD HQ beginning at 7:30 PM.
 - 2.2. Because of pressing business, the membership scheduled an additional meeting to continue work begun during this meeting to be held on Monday, February 3, 2014 beginning at 6:30 PM. This meeting will immediately precede the meeting of the AWD Board of Water Commissioners which begins at 7:30 PM (same date).
 - 2.3. Mr. Mostoller announced to the committee that the Town's Open Space Committee will conduct a meeting on February 13, 2014 to preview their recommendation. A number of them involve water resources. Mr. Mostoller will forward a copy of the announcement to Mr. Rosen who will pass the email on to the WLMAC membership.
3. **Review and Discussion of Allowed Uses Within Water Protection Zones 1, 2, 3 and 4:**
 - 3.1. The committee reviewed and extensively discussed the water source protection allowable uses in the attached excerpt from Acton's bylaws. We kept in mind what effect, if any, any possible changes to the allowable uses would have on the land owner and to the preservation and safety of the Town of Acton's water supply.
 - 3.2. The WLMAC decided that several changes to the bylaw's allowable uses should take place in various zones. These changes will be reflected in the next release.

3.3. Attached and made part of these minutes is the excerpt of the Acton Zoning Bylaw (Section 4.3) containing tables of allowed uses which formed the basis on which the WLMAC began its discussions of the current allowable uses. The entire document from which this was taken is available on-line at <http://www.acton-ma.gov/documentcenter/view/659> or at the Acton Town Hall.

Old Business:

4. Motion To Continue: Mr. Cipar moves that the remaining agenda be moved to the next regularly scheduled meeting of the WLMAC and that work on the current agenda item in progress (#3) be continued at the additional meeting of the WLMAC to be held on Monday, February 3, 2014 at 6:30 PM at the AWD HQ. Mr. Malchodi seconds the motion. The motion passes unanimously.

Adjournment:

On a motion by Mr. Malchodi and seconded by Mr. Cipar, the committee voted unanimously to adjourn the meeting at 10:15 PM ET on January 28, 2014.

4.3 GROUNDWATER Protection District

4.3.1 Purpose – GROUNDWATER is the sole source of drinking water available to the residents, businesses and industries of the Town of Acton.

The purpose of the GROUNDWATER Protection District is to protect the public health, safety, and welfare by protecting the Town's limited present and future drinking water supply, to ensure a sufficient quantity of potable pure drinking water for the present and future residents of Acton, and to limit the adverse effects of the USE and development of land on the quality of the GROUNDWATER and SURFACE WATER resources of the Town of Acton.

The GROUNDWATER Protection District is an overlay district whose boundaries are superimposed on all districts established by this Bylaw and whose regulations are in addition to any other regulations established by this Bylaw. The regulations in this district are not intended to supersede or limit the protections contained in state or federal GROUNDWATER protection programs, but to supplement protections contained in other statutes and regulations. The GROUNDWATER Protection District encompasses the entire Town, but it is divided into four separate protection zones, the regulations for which vary depending on their proximity to the Town's present and future drinking WATER SUPPLY wells.

4.3.2 District Boundaries – The GROUNDWATER Protection District is divided into four protection zones, as follows:

4.3.2.1 ZONE 1 - The area from which GROUNDWATER will travel to a pumping municipal well within a one year time period, based on average recharge conditions and anticipated pumping, as established in the "Groundwater Protection District Map of the Town of Acton, January 1989", prepared by Goldberg, Zoino and Associates (GZA) in the "Final Report - Aquifer Protection Zones, Town of Acton, Massachusetts, January 1989".

4.3.2.2 ZONE 2 - The Recharge Protection Area – The area within which GROUNDWATER will move toward a pumping municipal well at the end of a 180 day period of no surficial recharge and full design capacity pumping of the well (as more fully defined by the Massachusetts Department of Environmental Protection in 310 CMR 22.02), established in the "Groundwater Protection District Map of the Town of Acton, January 1989", as last amended and most recently adopted by Town Meeting. For the Clapp/Whitcomb and the School Street well fields, the Zone 2 delineation was prepared by Goldberg, Zoino and Associates (GZA) in the "Final Report - Aquifer Protection Zones, Town of Acton, Massachusetts, January 1989". For the Conant I and II well fields, the ZONE 2 delineation was prepared by Dufresne-Henry, Inc. for the Acton Water District in the "Report on Conant II Pumping Test", dated January 1993. For the Kennedy/Marshall well fields, the ZONE 2 delineation was prepared by Dufresne-Henry, Inc. for the Acton Water District in the "Report on Kennedy No.1 and Marshall Wellfields Zone II Delineation", dated October 1996. For the Assabet well fields, the ZONE 2 delineation was prepared by Stantec Consulting for the Acton Water District in the report "Prolonged Pumping Test Assabet Well No. 3", dated May 2008 and revised by Stantec Consulting in a letter report dated January 2009. All Zones 2 have been Town of Acton Zoning Bylaw, June 2013 Page 47

- approved by the Massachusetts Department of Environmental Protection (DEP) as the State approved Zones 2.
- 4.3.2.3 ZONE 3 - The AQUIFER Protection Area – The Area of the TOWN underlain with the geologic formation of STRATIFIED DRIFT, based on the U.S. Soil Conservation Service's (SCS) soil map field sheets 1988 and Interim Soil Survey Report, 1986; and based on the United States Geologic Survey's (USGS) Surficial Geology Maps for the Hudson Maynard Quadrangle, 1956, and the Assabet River Basin, Hydrologic Investigations Atlas, 1969.
- 4.3.2.4 ZONE 4 - The Watershed Protection Area – Consists of the entire TOWN including ZONES 1-3 and separates the TOWN into watershed areas along the existing GROUNDWATER divides. The areas of ZONE 4 outside from the boundaries of ZONES 1, 2 and 3 consist primarily of bedrock, glacial till and small isolated sand and gravel deposits. Water from these areas will eventually recharge into the lower lying areas of ZONES 1,2 and 3, although at a rather slow rate. Recharge from these areas into ZONES 1,2 and 3 occurs through movement of GROUNDWATER and SURFACE WATER. The purpose of ZONE 4 is to promote public awareness that all GROUNDWATER areas in the Town are interconnected and to prevent possible contamination of the GROUNDWATER from any source.
- 4.3.2.5 Boundary Determination – The locations of the various ZONES are shown on the "Groundwater Protection District Map of the Town of Acton, January 1989", as amended, consisting of Map Number 3A showing all ZONES at a scale of 1"=1200', and of Map Number 3B. Map Number 3B consists of sheets 3B-1 through 3B-18 showing ZONE 1 and ZONE 2 at a scale of 1"=200'. The sheets 3B-1 through 3B-18 correspond to the matching town atlas pages, which are also indicated on these sheets, and the ZONE delineations are either traced on these corresponding town atlas pages or on matching overlays to these pages. The "Groundwater Protection District Map of the Town of Acton, January 1989", as amended, is available at the office of the Town Clerk and the Engineering and Planning Departments. Actual site locations of the ZONE 1 and ZONE 2 boundary lines shall be determined by scaling from the Map Number 3B. Actual site location of the boundary line between ZONE 3 and ZONE 4 shall be located by the Zoning Enforcement Officer, or in the case of a Special Permit under Section 4.3.8, by the Planning Board, based on information from Map Number 3A. Locating the boundary between ZONE 3 and ZONE 4 may be assisted through field investigations conducted by a soil scientist who is certified under qualification class A (advanced qualifications) by the Society of Soil Scientist of Southern New England or by a Professional Engineer versed in soil identification and classification.
- 4.3.2.6 Split ZONE LOTS – Notwithstanding any other provisions of this Bylaw, whenever a GROUNDWATER Protection District ZONE boundary line divides a LOT, each portion of the LOT shall comply with the requirements of this Bylaw applicable to its respective ZONE.
- 4.3.3 Definitions – For the purpose of the GROUNDWATER Protection the following terms shall have the following meaning. The terms defined below are capitalized in this Section 4.3 in addition to the terms defined in Section 1.
- 4.3.3.1 AQUIFER – An area of permeable deposits of rock or soil, containing significant amounts of potentially recoverable water.
- 4.3.3.2 DIVERSION BOX – A precast concrete box or similar STRUCTURE, designed and positioned to direct a defined initial portion of runoff from a storm event in one direction and to direct remainder of the runoff water in another direction.

- 4.3.3.3 PRIMARY, SECONDARY, TERTIARY TREATED EFFLUENT – As defined from time to time in the applicable regulations of the Massachusetts Department of Environmental Protection.
- 4.3.3.4 FILL – Any material taken from on-site or off-site used for the purpose of augmenting or altering existing on-site topography, including but not limited to, landscaping, grading, or leveling of naturally occurring depressions in the land or of man-made excavations.
- 4.3.3.5 GENERATOR OF HAZARDOUS MATERIALS OR WASTE – Any individual or business that produces, uses or stores (stores: within the meaning of STORAGE pursuant to Section 4.3.3.14) on site HAZARDOUS MATERIAL OR WASTE as defined in Section 4.3.3.7, as a PRINCIPAL or ACCESSORY USE and in quantities exceeding normal household or BUILDING maintenance needs.
- 4.3.3.6 GROUNDWATER – Water beneath the ground surface in the zone of saturation where every pore space between rock and soil particles is saturated with water.
- 4.3.3.7 HAZARDOUS MATERIAL OR WASTE – Any substance, including petroleum or derivatives thereof, or combination of substances which because of their quantity, concentration, physical, chemical, infectious, flammable, combustible, radioactive, or toxic characteristics, may cause or significantly contribute to a present or potential risk to human health, safety or welfare; to the GROUNDWATER resources; or to the natural environment. Any substance, including but not limited to those regulated under the applicable Acton Board of Health regulations and under any of the following State and Federal laws and regulations, or any amendments thereof, shall be considered HAZARDOUS MATERIAL OR WASTE:
- M.G.L., Chapter 21C, 315 C.M.R. 2.04;
 - M.G.L., Chapter 21E, 310 C.M.R. 40.00;
 - M.G.L., Chapter 111F, 105 C.M.R. 670.00;
 - M.G.L., Chapter 148, Section 13;
 - Toxic Substances Control Act - 15 U.S.C s.2601 et seq.;
 - Federal Insecticide, Fungicide and Rodenticide Act -7 U.S.C s.136 et seq.;
 - Resource Conservation and Recovery Act - 42 U.S.C s.6901 et seq.;
 - Comprehensive Environmental Response, Compensation and Liability Act of 1980 - 42 U.S.C s. 9601 et seq.;
 - Federal Clean Water Act - 33 U.S.C s.1251 et seq..

For the purposes of this Section, sanitary domestic wastes from residential sources shall not be considered a HAZARDOUS MATERIAL OR WASTE.

- 4.3.3.8 IMPERVIOUS COVER – Refers to material covering the ground, with a coefficient of runoff greater than 0.7 (as defined in Data Book for Civil Engineers by Seelye; C = runoff/rainfall) including, but not limited to, macadam, concrete, pavement and BUILDINGS.
- 4.3.3.9 MAXIMUM GROUNDWATER ELEVATION – The height of the GROUNDWATER table when it is at its maximum level or elevation. This level is usually reached during the months of December through April. Determination of the MAXIMUM GROUNDWATER ELEVATION shall be made based upon the historical high GROUNDWATER table as determined by the United States Geological Survey (USGS), Acton Board of Health records, data from monitoring wells or other adequate field testing, whichever indicates the highest elevation. Where applicable, the determination of the MAXIMUM Town of Acton Zoning Bylaw, June 2013 Page 49

- GROUNDWATER ELEVATION shall be made with the additional assumption that any well, which during pumping would draw down the GROUNDWATER table at the site, is not operating and that the GROUNDWATER table is leveled off to its natural state.
- 4.3.3.10 UNDISTURBED OPEN SPACE – An area within the OPEN SPACE that lies outside of any disturbances due to clearing, grading, paving, building, landscaping or other site development activities. It may be subject to limited and selected cutting of trees, removal of dead wood, or yearly mowing of grass and brush.
- 4.3.3.11 SOLID WASTE – For the purpose of this Section, SOLID WASTE shall mean any unwanted or discarded solid material, as defined in 310 C.M.R. 18, with the exception of brush, yard trimmings and grass clippings.
- 4.3.3.12 SPECIAL WASTE – SPECIAL WASTE means any solid waste that is determined not to be a hazardous waste pursuant to 310 CMR 30.000 and that exists in such quantity or in such chemical or physical state, or any combination thereof, so that particular management controls are required to prevent an adverse impact from the collection, transport, transfer, storage, processing, treatment or disposal of the solid waste. Without limitation, SPECIAL WASTE includes waste that will require special management to ensure protection of public health, safety, or the environment based upon the physical, biological, or chemical properties of the waste. SPECIAL WASTES include but are not limited to: asbestos waste, infectious wastes except as specified in 310 CMR 19.061(6)(c)4, sludges including wastewater treatment sludges and industrial process wastewater treatment sludges. For purposes of this Bylaw, SPECIAL WASTE does not include drinking water treatment sludges. (Ref: 310 CMR 19.006 and 19.061(2) and (3))
- 4.3.3.13 STRATIFIED DRIFT – Permeable, porous deposits of glacial outwash, consisting primarily of sand and gravel. The particular deposits referred to herein are those occurring in glacial river valleys in which the town's drinking WATER SUPPLIES are located. These deposits are defined in the United States Geologic Survey's (USGS) Surficial Geology Maps for the Hudson Maynard Quadrangle, 1956, and the Assabet River Basin, Hydrologic Investigations Atlas, 1969, and in the U.S. Soil Conservation Service's (SCS) soil map field sheets, 1988, and Interim Soil Survey Report, 1986; soil types associated with STRATIFIED DRIFT listed in the Interim Soil Survey Report are: Agawam series, Amostown series, Birdsall series, Carver series, Deerfield series, Freetown series, Freetown-ponded, Hadley series, Haven series, Hinkley series, Hinkley series-bouldery, Limerick series, Merrimac series, Merrimac-urban land complex, Ninigret series, Occum series, Pipestone series, Pootatuck series, Quonset series, Raynham series, Rippowam series, Saco series, Scarboro series, Scio series, Sudbury series, Suncook series, Swansea series, Tisbury series, Walpole series, Windsor series, Winooski series; also Udorthents, Gravel Pits, Landfills, and Urban Land Complexes when surrounded by or primarily associated with soil types listed above. The above referenced soil types are associated with STRATIFIED DRIFT in general, however, not necessarily every listed soil type does occur within the boundaries of the Town of Acton.
- 4.3.3.14 STORAGE – On-site containment or retention of materials (liquid, gas, solid) for PRINCIPAL or ACCESSORY USE for a period of more than 24 hours and occurring with a frequency of more than once a month.
- 4.3.3.15 SURFACE WATER – All surface water bodies and wetlands protected under Massachusetts General Laws, Chapter 131, Section 40. Town of Acton Zoning Bylaw, June 2013 Page 50

- 4.3.3.16 WATER SUPPLY — A GROUNDWATER AQUIFER and SURFACE WATER recharge to a GROUNDWATER AQUIFER, which is a present or potential future drinking WATER SUPPLY source for the Town of Acton.
- 4.3.4 OPEN SPACE and LOT cover – The following requirements shall apply for OPEN SPACE, UNDISTURBED OPEN SPACE and IMPERVIOUS COVER:
- 4.3.4.1 ZONE 1 – In the Well Protection Area (ZONE 1) a minimum of 90% of every LOT shall remain OPEN SPACE, 50% of every LOT shall remain as UNDISTURBED OPEN SPACE. No more than 10% of every LOT shall be covered with IMPERVIOUS COVER.
- 4.3.4.2 ZONE 2 – In the Recharge Protection Area (ZONE 2) a minimum of 70% of every LOT shall remain OPEN SPACE, 40% of every LOT shall remain as UNDISTURBED OPEN SPACE. No more than 30% of a LOT shall be covered with IMPERVIOUS COVER.
- 4.3.4.3 ZONE 3, ZONE 4 – In the Aquifer Protection Area (ZONE 3) and in the Watershed Protection Area (ZONE 4) the OPEN SPACE requirements of the underlying Zoning District shall apply.
- 4.3.4.4 Outdoor STORAGE – Outdoor STORAGE areas shall not be considered a part of the OPEN SPACE of any LOT.
- 4.3.5 Depth to GROUNDWATER – Except for single FAMILY residential USES or BUILDINGS, no land within ZONES 1, 2 and 3 of the GROUNDWATER Protection District shall be developed or used except in accordance with the following requirements:
- 4.3.5.1 Minimum Distance to GROUNDWATER – The vertical distance between the existing or pre-development land surface and the MAXIMUM GROUNDWATER ELEVATION shall generally not be reduced, except when necessary to properly grade and construct STREETS, driveways, parking facilities and BUILDING sites, in order to comply with applicable regulations and to meet generally accepted ACCESS and safety standards.
- 1) The minimum distance between the finished or post-development grade from the MAXIMUM GROUNDWATER ELEVATION shall be not less than ten (10) feet, except as provided in Section 4.3.5.2.
 - 2) If the distance between the existing or pre-development land surface and the MAXIMUM GROUNDWATER ELEVATION is less than ten (10) feet, the distance may be reduced in accordance with Section 4.3.5.2.
- 4.3.5.2 Maximum Allowed Reduction within 10 ft. of GROUNDWATER – Where the existing or pre-development land surface is less than 10 feet above the MAXIMUM GROUNDWATER ELEVATION, the vertical distance between the finished or post-development grade to the MAXIMUM GROUNDWATER ELEVATION may be not less than ninety (90) percent of the pre-development distance.
- 4.3.5.3 GROUNDWATER Recharge Facilities – The bottom elevation of a leaching pond, or the bottom elevation of the stone layer in a leaching galley or trench shall be not less than two (2) feet above the MAXIMUM GROUNDWATER ELEVATION. This Section shall apply to STRUCTURES associated with surface drainage only.
- 4.3.6 Other Design and Operation Requirements – Except for single FAMILY residential USES or BUILDINGS, no land within ZONES 1, 2 and 3 of the GROUNDWATER Protection District, and with respect to Sections 4.3.6.1 and 4.3.6.2 no land within the Town of Acton Zoning Bylaw, June 2013 Page 51

entire GROUNDWATER Protection District, shall be developed or used except in accordance with the following requirements:

- 4.3.6.1 FILL – FILL material shall not contain HAZARDOUS MATERIAL OR WASTE, SPECIAL WASTE, or SOLID WASTE. This Section shall also apply in ZONE 4.
- 4.3.6.2 Watershed Recharge – The amount of annual precipitation being captured and recharged to the GROUNDWATER on site shall not be reduced due to development related surface runoff from the site when compared to pre-development conditions. Where a Special Permit or Subdivision Approval is required the Special Permit Granting Authority or the Planning Board shall require a hydrologic budget or water balance calculation for the site, showing pre- and post-development conditions, prepared by a Massachusetts Registered Professional Engineer experienced in hydrogeology. This Section shall also apply in ZONE 4.
- 4.3.6.3 Treatment and Renovation of Runoff – All water runoff from IMPERVIOUS COVERS shall be funneled into gas trap catch basins. In addition, the first (1st) inch of every storm event shall be directed into a retention pond(s), where it shall be retained for an average of at least 3 days prior to recharge into the ground or discharge from the site. The retention pond(s) shall be exposed to sunlight, vegetated, and lined with soil featuring a permeability of 0.0001 cm/sec (0.1417 in/hr) or less. A DIVERSION BOX shall direct all water, which falls onto the site in excess of one (1) inch during a single storm event, toward additional storage, direct infiltration, or discharge from the site. Alternate methods of runoff treatment and renovation may be approved by the Special Permit Granting Authority if the Special Permit Granting Authority determines the intent of this Section is met.
- 4.3.6.4 Pollution Safeguards – (1) Drainage facilities shall be designed to prevent leaks and shall be equipped with emergency slide gates or similar provisions to be closed in the event of an emergency. (2) Loading and unloading areas for HAZARDOUS MATERIALS OR WASTE, including fuel and heating oils, shall be equipped with a containment dike. (3) Compliance with the Acton Hazardous Materials Control Bylaw shall be required.
- 4.3.6.5 Location – Where a LOT is divided into two or more protection ZONES, potential pollution sources, such as HAZARDOUS MATERIALS OR WASTE processing, storage and disposal systems, septic systems, or wastewater treatment plants, shall be located on that portion of the LOT which is in the ZONE farthest away from the public wells. Where the ZONE boundary in question is one between ZONE 3 and ZONE 4, septic systems and waste-water treatment plants may be located in either ZONE, subject to certain restrictions contained in Section 4.3.7 of this Bylaw.

Where a LOT is partly in ZONE 4 and partly in another ZONE of the GROUNDWATER Protection District, IMPERVIOUS COVER runoff, generated in the ZONE 4 portion of the LOT but infiltrated, or discharged from the LOT, in a ZONE 1, 2 or 3 portion of the LOT, shall meet the same quality standard at the point of infiltration or discharge as if the runoff had been generated in ZONES 1, 2 and 3.

- 4.3.7 GROUNDWATER Protection District Use Regulations - No land which lies in ZONE 1, 2, and 3 of the GROUNDWATER Protection District shall be used and no activity shall be conducted on any land within these ZONES of the GROUNDWATER Protection District except in conformance with the following regulations: Town of Acton Zoning Bylaw, June 2013 Page 52

4.3.7.1 Permitted USES all ZONES – All USES allowed in the underlying zoning district except those which are prohibited or regulated in Section 4.3.7.2 are permitted.

4.3.7.2 Prohibited USES – In the following table of USE regulations "N" indicates that the USE is prohibited. "Y" indicates that a USE is permitted. Town of Acton Zoning Bylaw, June 2013 Page 53

TABLE 4.3.7.2

USE Regulations within the GROUNDWATER Protection District

ZONE 1 Well Protection Area	ZONE 2 Recharge Protection Area	ZONE 3 Aquifer Protection Area
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1. Sanitary landfill/solid waste disposal site, refuse treatment and disposal facility, landfilling of sludge and septage, storage of sludge and septage except for municipal USES as defined in Section 3.4.1 of this Bylaw associated with the provision of public sewer services

N N N

Comment [MP1]: Propose to eliminate this exception

2. GENERATOR OF HAZARDOUS MATERIALS OR WASTE, except for municipal USES as defined in Section 3.4.1 of this Bylaw associated with the provision of public water and sewer services

N N Y

Comment [MP2]: Propose to eliminate or divide this section

3. Vehicle Repair or Vehicle Body Shop	N	N	Y
4. Vehicle STORAGE for the purposes of leasing, rental, sale, resale, parts recovery, or similar USES	N	N	Y
5. Car, truck and equipment washing facility	N	N	Y
6. STORAGE of petroleum products for purposes other than heating the premises on which it is located	N	N	Y
7. Underground STORAGE of fuel oil, gasoline, or other HAZARDOUS MATERIALS	N	N	N
8. Underground STORAGE of fuel oil, gasoline, or other HAZARDOUS MATERIALS associated with residential USE	N	N	N
9. Commercial Laundries	N	N	Y

Comment [MP3]: Propose to divide to limit by size and prohibit storage of certain repair chemical.

Comment [MP4]: This is paragraph 5, propose to change to n

Comment [MP6]: Propose to change to N

Comment [MP5]: Insure this is defined to include maintenance business quantities

10. Dry cleaners with on-site cleaning facilities	N	N	Y
11. Furniture/wood stripping, painting & re-finishing	N	N	Y
12. Disposal of snow contaminated with de-icing chemicals and originating from a protection ZONE further distant from a public well than the location of disposal	N	N	N
13. Outdoor STORAGE of fertilizer, animal manure, soil conditioner, pesticide, herbicide and de-icing chemicals	N	N	Y
14. Chemical, bacteriological, biological or radiological laboratory or production facility	N	N	N
15. Subsurface disposal	Y	Y	Y

Comment [MP7]: Propose to change to allow sodium chloride salt to be moved from within a zone 3

Comment [MP8]: Change outdoor, split to prohibit in all zones for fertilizers, pesticides and herbicides or de-icing chemicals and for any waste materials (compost) which may contain pesticides or herbicides. And allow outdoor storage of manure, or compost provided that it is tested for the presence of any of the prohibited items.

Comment [MP9]: Change zone 1 and 2 to N

of wastewater effluent at a rate of less than 3.5gpd/1000sf of land area

	N	Y	Y
16. Subsurface disposal of wastewater effluent at a rate of 3.5gpd or more per 1000sf of land area but at a rate of less than 6gpd/1000sf of land area			

Comment [MP11]: Change to N required monitoring wells and septage testing.

	N	N	Y
17. Subsurface disposal of wastewater effluent at a rate of 6gpd or more per 1000sf of land area			

Comment [MP10]: Add a requirement to limit introduction of any drinking water regulated chemical to zero.

Comment [MP12]: Require monitoring wells with annual owner funded testing for all drinking water regulated chemicals and septage testing for same.

	N	N	N
18. Subsurface disposal of wastewater effluent on a parcel of land which is not a buildable LOT as defined in footnote (**)			

Regulations within the GROUNDWATER Protection District (continued)

**ZONE 1
Well
Protection
Area**

**ZONE 2 Recharge Protection
Area**

**ZONE 3 Aquifer Protection
Area**

19. Subsurface disposal of wastewater effluent at a rate of less than 750gpd per buildable LOT(**)	Y	Y	Y	Comment [MP13]: Change to N
20. Subsurface disposal of wastewater effluent at a rate of 750gpd or more per buildable LOT(**) but at a rate of less than 2,000gpd per buildable LOT(**)	N	Y	Y	Comment [MP14]: Change to N
21. Subsurface disposal of wastewater effluent at a rate of 2,000gpd or more per buildable LOT(**) but at a rate of less than 6,000gpd per buildable LOT(**)	N	N	Y	Comment [MP15]: Add annual testing of monitoring wells for all drinking water regulated compounds
22. Subsurface disposal of wastewater effluent at a rate of 6,000gpd or more per buildable	N	N	N	Comment [MP16]: Add annual testing of monitoring wells for all drinking water regulated compounds and septage testing for all drinking water regulated compounds

LOT(**)

23. Subsurface disposal of TERTIARY TREATED wastewater EFFLUENT

Y

Y | Y

Comment [MP17]: Change to N

24. Any activity, construction or installation conducted solely for the purpose of environmental clean-up or remediation, and required or approved by the United States Environmental Protection Agency or the Massachusetts Department of Environmental Protection

Y

Y | Y

Comment [MP18]: Change to N

25. Treatment or disposal works for non-sanitary wastewater that are subject to 310 CMR 22.21 (2)(a)6 as amended, except the treatment and discharge of surface water runoff in compliance with section 4.3.6.3 of this by-law

N

N | Y

NOTES:

(*) A USE may fall under one or more categories listed in this Table. Except as indicated in NOTE(***), any USE must be able to qualify for a Y or a SP in every applicable category , in order to be considered allowed (Y) or in order to be considered eligible for consideration of a special permit (SP), as the case may be.

(**) For the purpose of this table, buildable LOT shall mean: a) A LOT that is shown on a plan recorded in the Middlesex County Registry of Deeds or the Land Court, and that complies with all requirements of this bylaw pertaining to the LOT and the STRUCTURES thereon; and b) Common Land as provided for in sections 4.2, 4.4, 9, and 9B of this bylaw.

gpd - Gallons per day

Comment [MP19]: Add a requirement that prohibits introduction of any bulk materials, fill, sand, gravel or otherwise within zone 1,2 and 3 unless they are tested to be free of all drinking water regulated compounds. No exceptions.