



Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

ATTACHMENT B

Department of Environmental Protection

Northeast Regional Office • 205B Lowell Street, Wilmington MA 01887 • 978-694-3200

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August 25, 2016

Anthony Delapa
Delapa Properties
511 Washington Street
Norwood, MA 02062

RE: WETLANDS/WESTWOOD
DEP File# 338-0594
42 Mill Street
**Superseding Order of
Resource Area Delineation**

Dear Mr. Delapa:

The Northeast Regional Office of the Massachusetts Department of Environmental Protection, Wetlands Program (MassDEP), has completed its review of the above-referenced file in preparation to issuing a Superseding Order of Resource Area Delineation. Pursuant to the provisions of Massachusetts General Laws, Chapter 131, Section 40, MassDEP is issuing the attached Superseding Order of Resource Area Delineation (SORAD), confirming the delineated wetland boundaries on the site as inaccurate based upon a review of the information contained in the file and observations made during site evaluations. In addition, Mill Brook is determined to be a perennial stream.

The Westwood Conservation Commission (WCC) issued an Order of Resource Area Delineation (ORAD) on November 9, 2015, finding the delineation of the Bordering Vegetated Wetland (BVW) as inaccurate and also finding Mill Brook as a perennial stream. The WCC also indicated that there might be a potential vernal pool on the site.

On November 20, 2015, you appealed the ORAD claiming that the WCC had no basis in fact to make their decision. Your claim that Mill Brook is intermittent is based on four photographs covering the dates of September 1-4, 2014 showing a dry stream bed at the outlet below the dam of the impoundment. No photographs were taken of the impoundment and its inlet at this time. You also claim that a portion of the intermittent stream channel along the driveway to the 44 Mill Street residence is not a BVW and therefore not jurisdictional.

On December 16, 2015, MassDEP conducted a site inspection and met with your consultant and representatives of the WCC. At this time, water was observed in the impoundment and Mill

Brook. Additionally, two more site visits were made with this group to confirm wetland boundaries at the site using soils and vegetation.

The undeveloped site contains approximately half of a 2.55 acre shallow impoundment of Mill Brook and both wooded upland and BVW. An existing driveway from Mill Street to 44 Mill Street is parallel to the 42 Mill Street property line. An intermittent stream channel that was probably originally dug for drainage runs alongside the driveway on the 42 Mill Street property and joins Mill Brook. The intermittent stream flows through a small, partially-blocked culvert under what appeared to be a vehicle crossing from the driveway. Flowing water was not observed in the intermittent stream channel during any of the site visits.

The Riverfront regulations at 310 CMR 10.58(2) define a perennial stream using different criteria depending on the information known about the stream and its watershed. Specific criteria include the following: the stream is shown as perennial on a USGS topographic map, has a watershed size greater than or equal to one square mile, has a watershed area of at least one-half (0.50) square miles and a predicted flow rate greater than or equal to 0.01 cfs at the 99% flow duration using the USGS StreamStats program, and is perennial under natural conditions. This definition is further refined by 10.58(2)(a)1.d. which specifies that streams significantly affected by drawdown from withdrawals of water supply wells, direct withdrawals, impoundments, or other man-made flow reductions or diversions, then it shall be considered perennial.

Mill Brook is shown as a perennial stream on the 1985 Norwood Mass USGS Quadrangle and is within the Neponset River watershed. There are three impoundments on Mill Brook which includes the impoundment on the site. Two of the impoundments are located above the site impoundment. Historically, based on a 1941 USGS Norwood topographic quadrangle, there is no impoundment at 42 Mill Street but just the brook flowing through a wetland area. Furthermore, there is only one impoundment located along Mill Brook on this map.

The USGS StreamStats program calculated the drainage area of Mill Brook to be 1.36 square miles from the dam outlet on the site. The predicted flow rate was calculated at 0.0241 cubic feet per second at the 99% flow duration. Mill Brook enters the impoundment through a shallow channel of wetland vegetation and then flows approximately 400 feet through the impoundment to the dam outlet.

A significant portion of Mill Brook including the impoundment at the site is within the Interim Wellhead Protection Area of a Public Water Supply (PWS) well at Buckmaster Pond in Westwood. In the absence of an approved Zone II recharge area, DEP has adopted the Interim Wellhead Protection Area (IWPA) as the primary, protected recharge area for PWS groundwater sources. The IWPA radius for the PWS well at Buckmaster Pond is 0.5 miles.

Although not a declared drought during the period of time that the photographs were taken of a dry channel below the dam, the region was experiencing a dry period as evidenced by low stream flows and groundwater tables. Data from the USGS for the Water Year 2014 that ran from

October 1, 2013 to September 30, 2014 showed very low flows for the Neponset River and low groundwater levels at a USGS Norfolk well during September of 2014. The US Drought Monitor showed the region that includes Mill Brook and its watershed as being abnormally dry on September 2, 2014.

Based on the above information that Mill Brook is shown as a perennial stream on a USGS topographic map with a watershed area greater than one square mile, a predicted flow rate greater than 0.01 cfs, is within the recharge area of a PWS, has two impoundments above the site, and observations were made during an abnormally dry season with below average stream flows and groundwater levels in the area, it is MassDEP's opinion that Mill Brook is a perennial stream subject to the Riverfront regulations pursuant to 310 CMR 10.58.

It is also MassDEP's contention that the impoundment at 42 Mill Street is a run-of-the river impoundment and has primarily riverine characteristics based on its extremely shallow depth (estimated average depth of about 2 feet), small impoundment size compared with its watershed (341 times smaller than the watershed), the short distance between the brook inlet and the dam outlet (approximately 400 feet) which effectively short-circuits the impoundment; and the 1941 USGS quad shows a channel through a wetland area with no impoundment on the site. Therefore, it is MassDEP's opinion that the impoundment is subject to the riverfront regulations at 310 CMR 10.58.

The intermittent channel begins in a wetland area designated by flag D6 on the revised plan dated June 13, 2016 and continues to wetland flag GC52-1 (note that the intermittent channel from D6 to GC54 is located outside of the site's property line). The intermittent stream channel banks were examined for hydric soils and wetland vegetation. Hydric soils were found as well as wetland vegetation along the entire channel with the exception of a short section approximately 10 feet long where the channel lost its definition and then picked up again at its confluence with Mill Brook. It was clear, however, that the entire channel from D6 to its confluence with Mill Brook conveys water during large storm events along its entire length. It is MassDEP's opinion that the intermittent stream channel has bank with BVW.

Concerning vernal pools on the site, there are no confirmed potential or designated vernal pools registered by the Natural Heritage Program.

Please be advised that it is MassDEP's responsibility to address only those interests identified in the Wetlands Protection Act, M.G.L. Chapter 131, Section 40. However, the MassDEP reserves the right, should there be further proceedings in this case, to raise additional issues and present further evidence as may be appropriate. Should any party dispute these findings, please consult the language in the SORAD that specifies your rights and procedures for appeal.

If you have any questions concerning this SORAD, please do not hesitate to contact Gary Bogue at 978-694-3372.

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Sincerely,

A handwritten signature in black ink, appearing to read 'Rachel Freed', with a stylized flourish at the end.

Rachel Freed, Deputy Regional Director
Bureau of Water Resources

cc: Westwood Conservation Commission, 50 Carby Street, Westwood, MA02090
Scott Goddard, Goddard Consulting, 291 Main Street, Suite 8, Northborough, MA 01532
Brian Donahoe, Goldman Environmental Consultants, 60 Brooks Drive, Braintree, MA 02184