



OXBOW ASSOCIATES, INC.

Wetlands Delineation and Permitting • Wildlife Studies • Herpetology • Vernal Pool Ecology

****Via Email****

December 6, 2011

Mr. Terry Maitland, Chair
Conservation Commission
Acton Town Hall
472 Main Street
Acton, MA 01720

**Re: ANoRAD Peer Review
366 Pope Road
Acton, MA**

Dear Mr. Maitland and Members of the Commission:

I have reviewed the resource areas on the subject property preliminarily on November 21, 2011 in the company of Mr. Tidman and Mr. Crossman. This morning we also conducted a site inspection in the presence of a quorum of your Commission, Mr. Tidman, Mr. Crossman, R. Harrington, P.E. and Mr. Paratore, the owner.

The specific question posed by the Acton Conservation Commission is with regard to the "bordering" status of the resource areas and therefore which Regulations (state, local) apply to review of the site subsequent to the issuance of an ORAD.

OA has been involved in the delineation and determination as well as appellant actions for the purpose of defining the stream, or inland "Bank" resource. The presence of this resource is often significant in that a vegetated wetland found to be "bordering" upon a "Bank" becomes, by definition a BVW subject to the performance standards at 310 CMR 10.55. Such a physical configuration also has significance to local regulation and potentially to Sect. 404 jurisdiction and regulation.

Site Observations

At the property we observed an area of palustrine forested wetland, located almost exclusively off the property. Interior to this wetland is a channel, presumably historically excavated but now naturalized, that runs more or less parallel to the west property boundary for an estimated distance of 40-50 linear feet.

At some time in the recent past (+/- 3-10 years B.P.), an excavation on and across the property line was done where a sump was dug and lined with trap rock. This sump is dug to sufficient depth to allow it to discharge to a 4" white PVC pipe that was presumably installed contemporaneous to the construction of the sump. These activities were apparently not reviewed under the Act or the Bylaw.

As seen on the Stamski and McNary, Inc. site plan, the drainage from the upper forested wetland is conducted through about 200 linear feet of 4" PVC pipe to a point of daylighting at an ornamental feature in the existing yard. Two other PVC drain pipes discharge to this ornamental feature (see plan). The feature is partially lined with granite cobblestone blocks, which help to define a six to ten inch wide, moderately well defined channel. Whereas this feature provides a defined channel in the ground that "... normally abuts and confines a water body.: [310 CMR 10.54 (2) (a)-(c)].

In the above, intermediate point (due west of house) I observed a channel, however narrow, that has an observable break in slope through the majority of its length prior to discharging to a second concrete or asbestos culvert. Therefore, in my professional opinion, this course of channel, downgradient and confluent (by means of 4" PVC pipe), with the forested wetland to the west-southwest meets the physical criteria for inland "Bank". There seemed to be general agreement in the field that the contributing values of this length of Bank are limited to stormwater protection and flood control, and have no other discernable attributes that significantly contribute to the statutory interests of the Act and the Bylaw.

Further down-gradient to the east-southeast of the garden/ornamental feature with Bank, the next tier of the site drainage system daylights to a small stone headwall and discharges toward a paddock area, also by means of a small-dimension incised channel. This area does not support any hydrophytes, but by virtue of its annectancy to the Bordering Vegetated Wetland also meets the defining characteristics for "Bank". Again, here we could observe a short (est. less than 20 linear feet) run of channel with a generally defined course and a break in slope determining the course of effluent from the two pipes serving the area. In my professional opinion, this area also qualifies as "Bank", though the same generalized absence of attributes contributing to the statutory interests applies.

Below the fence defining a paddock area, the ground surface is entirely grassed, with a relict gravel road bed still detectable. There is an area of rutting in the ground surface that presumably conveys flow through the paddock during episodes of high precipitation or melting. However, this area is not sufficiently scoured to maintain a "bed" within a stream habitat, nor is it consistently defined over an extended length. Therefore, I do not consider the paddock area to contain either Bank or BVW. There is an area of BVW outside and south of the paddock that is identified on the plan.

We did not scrutinize the Mean Annual High Water boundary shown on the plan.

Conclusions

- **"B" Flag Series:** The forested wetland is a Bordering Vegetated Wetland by virtue of its internal channel, as well as its current status of discharging to an external pipe installed in the ground to convey water from this resource area.
- We agreed in the field that Flag 5A (in the B series) would be extended by an area of Bank (stone riprap) to encompass the 4" PVC pipe outlet. The plan should be amended to show an area of contiguous resource area (Bank or BVW) connecting the BVW and the drainage pipe.

- **The first ornamental feature** contains a jurisdictional Bank, but no hydrophyllic plant community. It is regulated as inland “Bank”.
- **The second/lower pipe outlet** also contains a length of “Bank” resource but similarly has no hydrophyllic plant community.
- **The paddock area upgradient of WF 1-6** experiences poorly defined flow of water and is more attributable to a swale or similar type configuration than a “Bank”. This area has been historically manipulated and possibly filled, but is not currently a regulated feature.

The Acton Conservation Commission members, the proponents, and myself were in general agreement that the pre-existing exposures of Bank could only be said to contribute to the interests of Storm Damage Prevention and Flood Control. The other interests were considered and largely dismissed at the site meeting.

In view of these findings, I am of the opinion that the upper forested wetland is regulated as BVW under the Act and the Bylaw and that there is a continuous, partially buried Bank extending down-gradient to approximately the paddock fence approximately 30 feet north of the gate and aluminum culvert observed at the paddock.

Thank you for the opportunity to review this site on behalf of your Commission.

Sincerely,



Brian O. Butler, President
Oxbow Associates, Inc.