

B & C Associates Inc.

Wetland Consultants

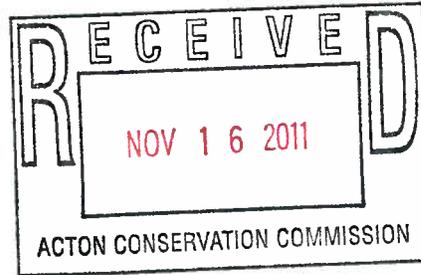
2 Rice Street ♦ Hudson, Massachusetts 01749

Phone 978/568-0135 ♦ Fax 978/568-0135

Stamski & McNary, Inc.
1000 Main Street
Acton, MA 01720

November 16, 2011

RE: Wetland Resources
366 Pope Road
Acton, MA



Dear Mr. Harrington,

On September 12, 2011, I delineated the boundary of all wetland resource areas inside (or within 100 feet of) the property boundary at 366 Pope Road.

I delineated a Bordering Vegetated Wetland in the southwest corner of the property with flagging numbered 1 through 6. I also delineated the edge of a perennial stream with flagging numbered RF1 through RF7. Finally, I delineated an isolated vegetated wetland, located along the northwest property boundary, with flagging numbered A1 through A5 and B1 through B7. The reason for the two separate lines is due to a small knoll located between the two lines. This knoll pushes the wetland boundary northward away from the site. This area is one large isolated wetland. This wetland is subject to the Town of Acton Wetland Bylaw only because the area is too small to meet the State of Massachusetts Wetlands Protection Act (Chapter 131 section 40) definition of an Isolated Land Subject to Flooding (ILSF). The area does not hold enough water to meet the criteria of an ILSF.

There are two notable issues with this property. First, there is substantial ledge located throughout the property. Second, this site has groundwater issues throughout much of the property. Historically, the upper paddock, along the northwest property line, becomes quite saturated during periods of heavy rain or snow melt. As a result, the paddock becomes extremely muddy and difficult to use with the horses.

As a result of this situation with the upper paddock, it appears that the previous owner attempted to alleviate those conditions by implementing a drainage system. A small channel was excavated from the southern corner of the isolated wetland to a pit lined with riprap. A pipe was installed, several inches above the bottom of the pit, to remove excess water away from this area. This pipe then daylighted in the center of the property where, it appears, a landscape feature was created. This landscape feature is comprised of an upland plant community. Several other pipes, handling groundwater issues, also discharge into this landscape feature. A single pipe then carries water southward to the edge of another paddock. Water

then sheet flows across the lowest area of the property into the adjacent wetland near wetland flag 5. There is a pipe located in front of a gate, in this lower paddock, which looks as if it was placed there to allow drier travel between the two paddocks. This pipe serves no other purpose.

Since this drainage system is now in place, there emerges a concern regarding this system. The primary problem relates to the possibility that the drainage system connects one wetland resource area to another. If this system does connect two wetland resource areas then there is the potential that the drainage system itself becomes a resource area.

In order for the drainage system to connect two resources area, the water would have to meet the definition of a stream and would have to flow from the first wetland to the second wetland via a definitive channel. Under 310 CMR 10.04 Definitions, a stream is defined as "a body of running water, including brooks and creeks, which moves in a definite channel in the ground due to a hydraulic gradient, and which flows within, into or out of an Area Subject to Protection Under M.G.L. c. 131, § 40. A portion of a stream may flow through a culvert or beneath a bridge. Such a body of running water which does not flow throughout the year (*i.e.*, which is intermittent) is a stream except for that portion upgradient of all bogs, swamps, wet meadows and marshes."

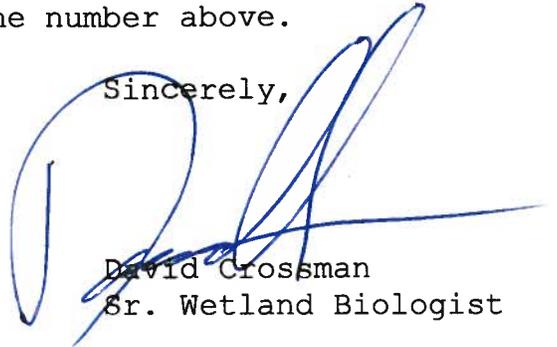
The piping creates a manmade outlet from the first wetland. The landscape area has a manmade channel created by the placement of rocks. There was also some placement of rocks at the outlet of the second pipe directing water into the bottom paddock. Finally, the water sheet flows across this paddock into the wetland below. When you look at the grass, in this paddock, you can ascertain a small "swale" in which the water could flow towards the wetland. Personally, I do not believe this swale would meet the definition of a definitive channel. In any event, this "swale" ends several feet before the fence which encloses this paddock. Water flowing out of this "swale" sheet flows into the adjacent wetland through any number of "entry" points. Further, there is a minimum of ten feet between the fence and the adjacent undisturbed wetland which is comprised of an upland plant community without any visible channels or scours. Just based upon these existing site conditions, the water does not flow immediately into the adjacent wetland but through an upland without the benefit of any channels or swales. Therefore, the water flowing into the downhill wetland is not considered, by definition, to be a stream because the water does not reach the wetland via a definitive channel.

In conclusion, I do not believe the water flowing through the drainage system meets the definition of a stream by the time the water reaches the downhill wetland thereby nullifying any connection between the two wetlands. I would contend that the piping was an attempt, not to drain the upper wetland but to maintain a certain water level which would allow usage of the upper paddock during the wetter times of the year. The placement of the inlet of the pipe above the bottom of the pit would seem to bear this out.

In summary, I believe the upper wetland is still an isolated wetland subject only to the Town of Acton Wetland Bylaw. The piping is simply a drainage system (not a wetland resource) which does not connect any two wetland resource areas to each other.

If you have any questions regarding my findings or need any additional information, you can reach me at the telephone number above.

Sincerely,

A handwritten signature in blue ink, appearing to read 'David Crossman', is written over the typed name and title.

David Crossman
Sr. Wetland Biologist