



October 28 2010

Wetlands Protection Committee
Town Offices, 525 Washington Street
Wellesley, MA 02482

Subject: Notice of Intent (NOI) Review, Wellesley Country Club (WCC)

Dear Committee Members:

I submit these comments on behalf of the Friends of Brookside, an organization of more than ten Wellesley citizens whose members are neighbors and abutters to the referenced project. The group has hired me to help them assess the WCC proposal. I am an expert wetland scientist and hydrologist (my CV is attached). In that capacity, I submit initial comments. Please note that I reserve the right to submit further comments as information becomes available. To date I have walked Brookside Road, reviewed the NOI and associated mapping, spoken to Adam Bossi, Agent, and reviewed at length neighbors' concerns.

Please note that the WCC has specifically requested that the abutters and I not enter the property. Conventionally, a request to enter is countered with an invitation by the applicant to view the site in the company of the property owner or the owner's engineer. The WCC denial complicates my review and prevents me from quickly answering questions that a guided sitewalk would typically resolve.

Following my review of the NOI, I consider the following issues to be of concern:

1. Whether the potential vernal pool (PVP) qualifies as a vernal pool (VP) under the Town by-law and under the Wetland Protection Act (WPA).
2. Whether this same area also qualifies under the Town by-law as Isolated Wetlands, and
3. Whether the Alternatives Analysis for impacts within the Riverfront Area are adequate as defined by the WPA.

I address these concerns in greater detail below.

(1) Potential Vernal Pool

My professional opinion is that the proponent has not met the Bylaw burden of proof that the pool is not a protected VP. Section 112 of the Bylaw states,

"The applicant for a permit shall have the burden of proving by a preponderance of the credible evidence that the work proposed in the application will not have unacceptable significant or cumulative effect upon the wetland values protected by this bylaw."

Neither the NOI nor a supplemental letter from the proponent's engineer, Michael Toohill, dated Sept 30 2010, furnish the necessary data for the Committee to make a proper determination.

Mr. Toohill in his 9/30/10 letter states that the Town Wetlands Protection Bylaw presumes that pools occurring in lawns, landscaped area, or driveways are presumed not significant as wildlife habitat. In fact, the Bylaw states,

"Pools occurring in lawns, landscaped area, or driveways *as of* April 9, 2002 (the date the Bylaw was enacted) are presumed not significant as wildlife habitat."

The PVP in question was created after 2002, and therefore not exempt from the presumption of significance in the Bylaw.

The 9/30/10 letter goes on to emphasize that the PVP was created as a landscape feature, fills with water due to stormwater runoff, was planted with "fescue" grasses, and is so exposed to sun that it "cannot serve as effective vernal pool habitat..." My response to these statements is that:

- In this case, the date of the creation of the PVP is a factor in its definition and protection. As I have already noted, because it was created after 2002, it is not exempt from the presumption of significance in the Bylaw.
- Although the pool may capture some storm runoff, my professional opinion is that the majority of its volume is due to seasonal high ground water—that is, like all VPs it intercepts rising ground water in the winter and spring months.
- The purpose underlying its creation is not and cannot be a factor in its definition or subsequent protection.
- Observation of the pool indicates that, even after being mowed by the WCC, it is fringed with and full of herbaceous hydric species. Mr. Toohill's reference to "physical and biological limitations of the vegetation present" is not scientifically valid (see, at a minimum, the NHESP publication for Massachusetts, *A Field Guide to the animals of Vernal Pools*, Kenney & Burne, 2001).
- Last, scientific literature regarding vernal pools has extensive references to open and fully exposed VPs. I have certified several in my career. Lack of shade is not a physical element that excludes pools from being PVPs.

I refer the Committee to Section 32 of the Bylaw, which defines vernal pool habitat as,

"Vernal pool habitat" means confined basin depressions which, at least in most years, hold water for a minimum of two continuous months during the spring or summer, and which are free of adult fish populations. This includes the area within 100 feet of the mean annual boundaries of such depressions. Such areas need not lie within other resource areas subject to this bylaw to be protectable hereby..."

Town WETLANDS PROTECTION REGULATIONS, Section 3.A. Definitions, further states,

"'Vernal pool habitat' means confined basin depressions which, at least in most years, hold water for a minimum of two continuous months during the spring or summer, and which are free of adult fish populations. Vernal pool habitat includes the area within 100 feet of the mean annual boundary of the pool itself. The Vernal pool need not be certified and the Vernal pool and its surrounding 100-foot area need not be within another resource area to be protected by this Bylaw."

Therefore, if the PVP is found to be a full VP, the Committee must presume that a zone 100-feet around the pool is included in its protection. Further, photographs that follow in my letter document the pool holding water in both March and April.

Section 3.C. PROTECTION OF VERNAL POOL HABITAT, states in part,

"Presumption of Significance

...Any confined depression Which, at least in most years, holds some water for at least two continuous months during the spring or summer will be presumed to be essential breeding habitat and provide other extremely important habitat functions during the non-breeding season for a variety of Wildlife, particularly amphibian species.

Pools occurring in lawns, landscaped area, or driveways as of April 9, 2002 (the date the Bylaw was enacted) are presumed not significant as wildlife habitat."

The Bylaw then provides a means to overcome the presumption:

"This presumption may be overcome by a clear showing that the presumed vernal pool does not and cannot meet the defining criteria set forth by the Massachusetts Division of Fisheries and Wildlife, Natural Heritage and Endangered Species Program, in Spring 2000, for Vernal pool certification."

None of the documents furnished to the Committee address the above requirements. There are no data sheets, species analysis, photographs or other standard records of VP analysis. The Bylaw then notes, "Certification of a vernal pool under the state program is not required for protection under the Bylaw or these regulations." The Bylaw points an applicant toward the proper seasonal considerations, which happen to mirror those currently required by NHESP:

"(c) Because of the seasonal nature of vernal pools, the Wetlands Protection Committee may require that evidence presented to overcome this presumption be gathered during the spring or summer during a year in which the level and duration of water in the pool is at or above average."

Finally, the Bylaw states, "Failure to provide adequate evidence to the Committee supporting this burden shall be sufficient cause for the Committee to deny a permit or grant a permit with conditions."

In summary, my professional opinion is that the applicant has not met minimum requirements to properly analyze the pool. Given that the Committee will be hiring a peer reviewer, such an analysis should be conducted in the presence of the peer reviewer, and done between the months of April and May of a given year. Dry pool analysis is no longer allowed by NHESP, therefore a scientifically valid investigation can only occur during spring months.

Last, according to my clients, the PVP has not been regularly mowed by the WCC. They note that, when abutters began to question whether the pool was a protected resource, the WCC cut the area. Doing so may obviously impact potential habitat viability, thereby reducing the likelihood of the pool being able to sustain VP species. In addition, the WCC has, according to abutters, begun stockpiling cut organic materials along the edges of the pool. **I strongly recommend that the Committee require that all work be stopped in the PVP vicinity until the issue of whether it is a protected resource is properly resolved. The application of any herbicides and pesticides in the area of the pool should be prohibited as well during this period.**

Abutter photographs of the potential VP follow, which indicate the extent of the pool, its vegetation before mowing and its wildlife habitat value.



Figure 1. View of the PVP from Brookside Road. Note the dense hydric herbaceous vegetation in the pool prior to the WCC mowing in 2010 of the entire pool—as well as the use of the pool by more than 20 ducks. Image taken 3-3-10.



Figure 2. View of the PVP from within the course. Note the extent of flooding. Again, this photograph shows wetland vegetation within and surrounding the pool. No dumping of cuttings has yet occurred. Image taken 4-2-10.



Figure 3. An additional photograph of the PVP from Brookside Road. Emergent wetland vegetation is within pool. Note the ducks. Image taken 3-15-10.



Figure 4. Left edge of PVP from Brookside Road. Cuttings have begun being added to the pool by this date. Image taken fall 2010.



Figure 5. Detail shot of cuttings left on the banks of the PVP.

(2) Isolated Wetlands and Isolated Land Subject to Flooding

The PVP is, in my opinion, Town-protected Isolated Wetlands, as well as Town-protected Isolated Land Subject to Flooding. The US Army Corps of Engineers (USACE) may also protect the PVP as *federal* Isolated Wetlands.

The Wellesley Bylaw protects, "isolated wetlands so long as they cover at least 2,500 square feet of surface and land within 100 feet of the aforesaid resource areas" and "isolated land subject to flooding."

The Town WETLANDS PROTECTION REGULATIONS, Section 3.A. Definitions, further states that the Town protects,

"...isolated wetlands so long as they cover at least 2,500 square feet of surface area; [and] land within 100 feet of the aforesaid resource areas..."

From a review of the NOI mapping, in conjunction with abutter photographs, my opinion is that the PVP area encompasses more than the minimum 2,500 square feet of surface area. Mr. Toohill argues in his supplemental letter that soils are too disturbed to be identified as wetland (hydric) soils. In fact, wetland and soil scientists use evidence of hydrology, rather than soils, in disturbed areas. Both DEP and USACE consider standing water or surface staining to be evidence of hydrology, and that therefore an analyst may presume that wetland soils underlay these areas. Such soils become hydric as a result of inundation for sufficient periods of time to cause the soils to become anaerobic. Standing water of more than two months duration is sufficient to presume underlying hydric soils.

Further, as I have noted, observation of the PVP even from Brookside Road indicates that the pool's vegetation is predominately hydric. Therefore, the pool has sufficient hydrology and vegetation to qualify as isolated wetlands under the Town Bylaw and under the federal Clean Water Act.

In addition, the Town bylaw protects "land within 100 feet of the aforesaid resource area(s)." My professional opinion is that the pool is,

- A potential vernal pool under the Town Bylaw;
- Isolated wetlands under the Town Bylaw;
- Isolated land subject to flooding under the Town Bylaw;
- Federally-protected Isolated Wetlands under the Clean Water Act; and
- That a 100-foot protected resource area surrounds the perimeter of the pool.

The applicant needs to properly field-define these areas using the appropriate regulatory methods as found in current DEP publications and in the most current USACE wetland supplements. This required work has not been done and must be included in the NOI for the Committee to evaluate this critical area.

As an aside, I note that the NOI does not address Isolated land subject to flooding.

(3) Alternatives Analysis

The Riverfront Protection (RA) portion of the Massachusetts Wetland Protection Act (WPA) requires an Alternatives Analysis when any work is to be conducted in the RA. Portions of the proposed facilities are within 200-feet of Rosemary Brook and therefore within the RA. They are subject to a thorough analysis of alternatives.

The NOI discusses alternatives, as does Mr. Toohill in his supplemental letter of September 2010. These discussions are inadequate to meet the requirements of 310 CMR 10.58 et seq. This section of the WPA states that the issuing authority shall presume that the RA is significant to all eight interests of the Act. The burden of proof that it is not is the applicant's.

Where the presumption of significance is not overcome—and that presumption has not been overcome in this filing—the applicant shall prove, (1) work will have no significant adverse effect, and (2) there are no practicable and substantially equivalent economic alternatives to the proposed project with less adverse impact on the interests of the Act. *Note that there are two concurrent standards that must be met.*

The standard for comparison of alternatives is: practicable and substantially equivalent economic alternatives. Practicable is defined as available and capable of being done considering: costs; technology; proposed use; and logistics. Note that cost alone does not determine whether a proposed project is or is not practicable.

I have peer reviewed many projects since the inception of the regulations requiring RA Alternative Analysis. All complete NOIs will include the following:

- Full property mapping that shows all lands under the ownership or control of the applicant. Mapping includes existing uses, available areas, and physical con-

- straints that may include wetland resources, slopes, soils and other potential project impediments;
- Plans of the overall area should show footprints for the proposed improvements in alternate areas;
 - The analysis should consider expansion of existing facilities, both horizontal and vertical, along with constraints and potential impediments;
 - General cost documentation, comparing financial impacts of different alternatives (such documentation does not include specific financial quotes, but should be sufficient to reasonably compare facility costs in one area versus another);
 - Legal and zoning constraints, if any; and
 - Technological impediments and limitations.

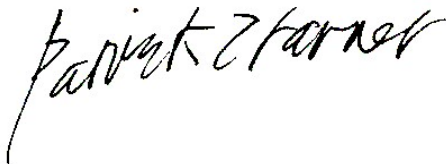
The documentation attached to the NOI and supplemented in later letters does not furnish the required level of detail that will allow the Committee to properly evaluate alternatives. Instead of meeting the regulations, the analysis consists solely of a discussion and assurances by the proponent's engineer.

The NOI lacks overall property maps, existing conditions analysis, cost spreadsheets or other sufficient cost documentation, technological data and/or a robust discussion, with evidence, of constraints. A typical Alternatives Analysis runs many pages in length, and includes multiple plans.

I expected to offer the Committee specific recommendations on this issue, but am not able to do so because the NOI package itself does not meet many of the basic regulatory requirements of 310 CMR 10.58.

I plan to attend the next public hearing, and am available for any informal technical meetings beforehand.

Very truly yours,

A handwritten signature in black ink that reads "Patrick Garner". The signature is written in a cursive, flowing style.

Patrick Garner
Wetland Scientist, Hydrologist

Note:

Friends of Brookside includes the following ten Wellesley citizens:

Phil and Laura Fragasso
166 Oakland Street
Wellesley, MA

Larry Shind and Abby Goodman
36 Grantland Rd.
Wellesley, MA

Lemonia Fotiadis
Wellesley, MA

Jonathan and Teresa Ettinger
24 Grantland Rd.
Wellesley, MA

Liza and Billy Near
3 Madison Rd.
Wellesley, MA

George Marsh
167 Oakland St.
Wellesley, MA