

COMMONWEALTH OF MASSACHUSETTS  
DIVISION OF ADMINISTRATIVE LAW APPEALS

April 3, 2008

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In the Matter of

Docket Nos. DEP-07-474 / 476

TOLL BROTHERS, INC.

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Superseding Determination of Applicability  
North Attleboro

RECOMMENDED FINAL DECISION

Consolidated appeals by petitioner-requestor Toll Brothers, Inc. (in Docket No. DEP-07-474), and by petitioner ten residents group (Mark Whalen *et al.*) and group member Mark Whalen individually as an aggrieved person (in Docket No. DEP-07-476), challenging so much of a wetlands superseding determination of applicability, issued by the Massachusetts Department of Environmental Protection (DEP) on March 8, 2007 regarding undeveloped property in North Attleborough (Lot 29 at High Street and Arnold Road), as declined to confirm that a stream running through the property (Scott's Brook) was intermittent and therefore lacked an associated riverfront area, as Toll Brothers asserted.

Motion by Toll Brothers, supported by DEP, petitioner Whalen group and the North Attleborough Conservation Commission, for a summary decision determining that (1) Scott's Brook was "not significantly affected by drawdown from withdrawals of water supply wells, direct withdrawals, impoundments or other man-made flow reductions or diversions" when a no-flow condition was documented during a four-day, non-drought period, and (2) Scott's Brook is, thus, an intermittent stream without an associated riverfront area..

Motion granted.

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John F. Shea, Esq. and Gail E. Magenau Hire (Mackie, Shea & O'Brien, P.C.), Boston, for petitioner-requestor Toll Brothers, Inc.

Mark Whalen, North Attleborough, for petitioner ten residents group (Mark Whalen *et al.*).

Patrick C. Garner, Northboro, for intervenor ten residents group (Cynthia DeSisto *et al.*).

Daniel d'Hedouville, Esq., Chief Regional Counsel, Lakeville, for the Department of Environmental Protection.

Marie K. Clarner, Chairperson, North Attleborough, for North Attleboroough Conservation Commission.

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MARK L. SILVERSTEIN, Administrative Magistrate.

Background

a.

The focus of these appeals is Scott's Brook, a stream that flows across an undeveloped, irregularly-shaped 61-acre property in North Attleborough (the site) on which petitioner Toll Brothers, Inc. contemplates building a 50-unit residential subdivision. See attached Sketch. The site is approximately 1200 feet south of North Attleborough's boundary with Plainville and the Heather Hill Country Club, a public club with golf courses (one 18-hole course and one 9-hole course) located on the Plainville side of the town line. It is bounded by existing homes along Arnold Road to the south, along High Point Drive to the west, and along High Street to the north and east.

Scott's Brook originates at a small pond over a mile to the north in Plainville, where it is known as Pitcher Brook. The brook flows southward along the western boundary of Heather Hill Country Club and turns eastward after crossing the town line into North Attleborough. It is joined along this stretch (at a point roughly 400 feet north of High Street and 500 feet north of the undeveloped parcel) by an unnamed tributary stream flowing south from the Country Club. The tributary stream originates at the Country Club and exits the southernmost of its golf course irrigation ponds before crossing the town line and intersecting Scott's Brook. The Brook then turns southward, passes beneath High Street and runs west of it behind existing houses, and then flows across the southeast corner of the Site (a stretch of several hundred feet) before continuing further southward beyond Arnold Road.

b.

The United States Geological Service (USGS) quadrangle map for the area shows Scott's Brook as a perennial stream. DEP's Riverfront Area Regulations, 310 CMR 10.59 (part of the agency's Wetlands Regulations, 310 CMR 10.00), provide that "[a] river or stream shown as

perennial on the current United States Geological Survey (USGS) or more recent map provided by the Department is perennial,” 310 CMR 10.58(2)(a)1.a, meaning that it flows throughout the year and is, thus, a river with an associated riverfront area on each side. See 310 CMR 10.58(2)(a)1. Rivers “include perennial streams that cease to flow during periods of extended drought.” 310 CMR 10.58(2)(a)1.f. In addition, “[r]ivers and streams that are perennial under natural conditions but are significantly affected by drawdown from withdrawals of water supply wells, direct withdrawals, impoundments, or other man-made flow reductions or diversions shall be considered perennial.” Id.

\_\_\_\_\_ A stream shown as perennial on the USGS map may be intermittent nonetheless. 310 CMR 10.58(2)(a)1.d provides in pertinent part that “notwithstanding 310 CMR 10.58(2)(a)1.a. through c.”, the permit-issuing authority (e.g., a local conservation commission or DEP) “shall find that any stream is intermittent based upon a documented field observation that the stream was not flowing” made by “a competent source” and “based upon an observation made at least once per day, over four days in any consecutive 12 month period, during a non-drought period on a stream not significantly affected by drawdown from withdrawals of water supply wells, direct withdrawals, impoundments, or other man-made flow reductions or diversions.” (emphasis added). DEP’s preface to the 2002 revisions of the Wetlands Regulations explains that:

[T]he Department has added the word “significant” to stress that the stream’s apparent change in status (i.e. a perennial stream is observed intermittent) must be directly related, and in most cases, proximate, to the withdrawal, impoundment, or other flow reduction or diversion. In other words, “but for” the withdrawal, impoundment, or other flow reduction or diversion, the stream would be perennial. The regulation also clarifies that the changes must be man-made.<sup>1</sup>

If Scott’s Brook is indeed perennial as the USGS map shows it to be, any work that Toll Brothers, Inc. proposes to perform within its associated riverfront area would have to meet performance standards for work in this type of wetland resource area, including the requirement that

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<sup>1</sup>/ 310 CMR 10.00, rev. 12/20/02, Preface to Revisions of the Massachusetts Wetlands Regulations (310 CMR 10.00) Relating to the Definition of “Extended Drought” and Distinguishing “Perennial Rivers” from “Intermittent Streams”, at B. Extended Drought, third unnumbered para.

there must be no “practicable and substantially equivalent” economic alternative to the proposed project. See 310 CMR 10.58(4) c). Performance standards governing work in a riverfront area would not apply, however, if Scott’s Brook were shown to be intermittent under 310 CMR 10.58(2)(a)1.d.

c.

Toll Brothers, Inc. sought to determine the extent of regulatory jurisdiction at the Site under the Massachusetts Wetlands Protection Act, M.G.L. c. 131, § 40, and DEP’s Wetlands Regulations, 310 CMR 10.00, before it sought a wetlands permit, as both the Act and the regulations allowed it to do. It filed, with the North Attleborough Conservation Commission, a request for determination of applicability regarding two types of wetland resource areas: (1) bordering vegetated wetlands associated with Scott’s Brook (the alteration of which would be governed by performance standards at 310 CMR 10.55), whose existence Toll Brothers did not dispute, and (2) riverfront area associated with Scott’s Brook, see 310 CMR 10.58(2), whose existence Toll Brothers denied. Toll Brothers argued that the brook was an intermittent rather than a perennial stream, based upon daily observations of no flow, and photographs showing a dry stream bed, that were made between July 28 and August 5, 2006, when there was no drought.

On August 8, 2006, the Conservation Commission issued a determination of applicability confirming Toll Brothers’ delineation of the bordering vegetated wetland boundary and the intermittent stream status of Scott’s Brook. A ten residents group (Cynthia DeSisto et al.) challenged the Conservation Commission’s intermittent stream determination by filing (on August 24, 2006) a timely request with DEP for a superseding determination of applicability. The group asserted that (1) Scott’s Brook was identified as a perennial stream on the most recent USGS Quadrangle map, and (2) dry stream bed observations notwithstanding, the stream “was significantly affected” by the withdrawal of water for irrigation from the brook’s unnamed tributary, particularly during the growing season (May-October), via irrigation wells, impoundments and diversions at Heather Hill

Country Club.<sup>2</sup> The group estimated that the Country Club withdrew between 22 and 54 million gallons (or up to 382,000 gallons per day) during the period May-October, based upon statistics for golf course water use in DEP's June 8, 2000 "Golf Course Water Use Policy."<sup>3</sup>

DEP issued a superseding determination of applicability on March 8, 2007 in which it (1) confirmed Toll Brothers' delineation of bordering vegetation wetlands at the Site as accurate, but (2) noted that Scott's Brook was shown as perennial on the most recent USGS map and found that the information furnished by Toll Brothers "in support of the observations of no flow conditions, fails to prove that Scott's brook is not significantly affected by drawdown of water supply wells, direct withdrawals, impoundments, or other man-made flow reductions or diversions, as required by 310 CMR 10.58(2)(a)1.d. to overcome the presumption of perennial flow."<sup>4</sup> DEP's superseding determination was, therefore that "[t]he perennial or intermittent status of Scott's Brook is not confirmed."<sup>5</sup>

These appeals followed on March 22, 2007, one by Toll Brothers (DEP-07-474) and the other by a different ten residents group (Mark Whalen et al. in Docket No. DEP-07-476).<sup>6</sup> Each of the

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<sup>2/</sup> See the DeSisto group's request for a determination of applicability, dated August 24, 2006, at 1-2.

<sup>3/</sup> Id., at 2.

<sup>4/</sup> Superseding determination of applicability; cover letter dated March 8, 2007. at 1, para. 2.

<sup>5/</sup> Id.; superseding determination form, at 2, Item 2b.

<sup>6/</sup> Whalen also claimed to be aggrieved personally by a determination that Scott's Brook was perennial because this would impose a 200-foot riverfront area, and the use restrictions this implied, upon his property along the brook downstream of the Site (approximately 240 feet south of Arnold Road). He asserted, as well, that his "neighbors" were aggrieved similarly, but he did not identify which of the residents within his group owned property along Scott's Brook, and it is not clear from the appeal (dated March 22, 2007) whether any of these group members (other than Whalen) were asserting individual claims as aggrieved persons.

Whalen's standing was not challenged, and he never abandoned his individual appeal as an aggrieved person. The appeal he filed remains one brought by Whalen individually and by the ten residents group of which he is a member. The group members other than Whalen appealed solely as members of the group and have not pursued individual claims here.

petitioners sought a final determination that Scott's Brook was an intermittent stream.<sup>7</sup> Following a "pre-screening" process, DEP transferred these appeals to the Division of Administrative Law Appeals (DALA) on June 22, 2007. The appeals were consolidated and a prehearing conference was held on August 15, 2007. Per the prehearing conference report, the issues to be adjudicated are:

Is Scott's Brook an intermittent stream with no associated riverfront area, or a perennial stream and therefore a river with an associated riverfront area? In particular, was the documented no-flow condition in Scott's Brook "significantly affected by drawdown from withdrawals of water supply wells, direct withdrawals, impoundments, or other man-made flow reductions or diversions" at the Heather Hill Country Club upstream of the subject property?

Toll Brothers moved for summary decision, with a supporting affidavit by professional geologist Raymond C. Johnson and a report he prepared in June 2007 regarding golf course water withdrawals and the documented no-flow condition in Scott's Brook. Toll Brothers asserted that neither the observed no-flow conditions in Scott's Brook during a non-drought period, nor the lack of significant affect upon brook flow by well drawdown or by water impoundment or diversion at Heather Hill Country Club, was genuinely or materially disputed. A summary decision in Toll Brothers' favor would result in a final determination that Scott's Brook was intermittent and lacked an associated riverfront area at the Site.

The Whalen group, DEP and the North Attleborough Conservation Commission each filed a brief statement supporting Toll Brothers' motion. In doing so, DEP abandoned its prior position that Toll Brothers had not rebutted the USGS map-based presumption of Scott's Brook's perennial stream status, although its filing gave no explanation for this position change. The DeSisto group filed opposing papers including an affidavit by professional wetland scientist and hydrologist Patrick C. Garner.

The parties filed prefiled direct testimony, subsequently. The DeSisto group included, in its

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<sup>7</sup>/ Toll Brothers sought, in the alternative, a remand to DEP's Southeast Regional Office for the purpose of considering additional evidence that the documented absence of flow was not significantly affected by drawdown from water withdrawals at Heather Hill Country Club. Because DEP changed its position during these appeals and supports a summary decision in Toll Brothers' favor, the remand that Toll Brothers sought as alternative relief has become academic.

prefiled direct testimony, a copy of the Garner affidavit it filed in opposition to Toll Brothers' summary decision motion. This was its sole expert testimony. Toll Brothers then moved for a directed decision, asserting that the DeSisto group had failed to sustain a direct case showing that Scott's Brook flowed perennially "but for" well drawdown or by water impoundment or diversion at Heather Hill Country Club. DEP supported this motion as well. The DeSisto group filed no response to it.

### Discussion

1.

a.

Although prefiled testimony followed Toll Brothers' motion for summary decision, I consider that motion nonetheless.

Typically, a search for genuine, material factual issues such as a motion for summary decision prompts loses its practical value once the hearing begins with the filing of prefiled testimony and the focus shifts to the sufficiency of the petitioner's direct case. Thus, a summary decision made after prefiled testimony is filed is more sensibly treated as a motion for a directed decision, see Matter of O'Brien, Trustee, Scenic Heights Realty Trust, Docket No. 95-100, Final Decision, 4 DEPR 130, 138 (Sept. 9, 1997), reconsideration denied, 4 DEPR 180 (Oct, 23, 1997). Another approach is to allow the party moving for summary decision after testimony is filed to move for a directed decision instead. See Matter of Kaitbenski, Decision and Order re Second Motion for Summary Decision, Docket No.99-015 (March 23, 2000).

It makes more sense here, however, to reach Toll Brothers' motion for summary decision. Toll Brothers filed the motion before testimony was filed. It was not sooner decided for reasons related to adjudicatory workload rather than to the motion's lack of merit or utility. In addition, the motion for summary decision was grounded in significant part, as was Toll Brothers' testimony and its motion for a directed decision, upon information and conclusions presented in a report prepared

by its expert professional geologist. There is also a fairness factor to be considered. Although the DeSisto group filed no opposition to the directed decision motion, it filed an opposition to the summary decision motion including the affidavit of its wetlands scientist, and the group may have believed that its opposing papers sufficed as an opposition to the directed decision as well. It is difficult to know for certain if this is what the group intended, but it is also not clear that the group, which was not represented by counsel, intended to abandon its position on the issues and accept an adverse directed decision by default. To insure that the group's papers opposing summary decision are considered, I decline to bypass the summary decision motion and decide this matter upon the unopposed motion for a directed decision.

Toll Brothers may still prevail, consequently, based upon the absence of genuine, material factual issues even though the parties filed their respective prefiled direct testimony. That is indeed how this matter resolves.

b.

A party moving for summary decision must show, with competent evidence, that there are no genuine or material factual issues to be adjudicated and that it is entitled to a final decision in its favor as a matter of law. Matter of Papp, Docket No. DEP-05-066, Recommended Final Decision, 12 DEPR 210, 212 (Mass. Div. of Admin. Law App., Nov. 8, 2005), adopted by Final Decision (Mass. Dep't of Env'tl. Prot., Dec. 27, 2005); Matter of Casagrande, Docket No. 2003-020, Recommended Final Decision, 11 DEPR 115, 116 (Mass. Div. of Admin. Law App., May 7, 2004), adopted by Final Decision, 11 DEPR 114 (Mass. Dep't of Env'tl. Prot., June 7, 2004). This evidence may include one or more affidavits, each of which is (1) made on personal knowledge, (2) shows affirmatively that its author (the affiant) is competent to testify about the matters that his affidavit relates, and (3) presents evidence that would be admissible in the Massachusetts courts. Matter of Papp, 12 DEPR at 212; see also Matter of Building Center, Inc., Docket No. 2002-230, Recommended Final Decision, 11 DEPR 43, 46 (Mass. Div. of Admin. Law App., Mar. 19, 2004), adopted by Final Decision, 11 DEPR 124 (Mass. Dep't of Env'tl. Prot., June 10, 2004).

If the party moving for summary decision makes this showing, the focus shifts to the opposing papers, which must show with competent evidence that there exists a genuine and material factual dispute barring summary decision. Matter of Papp, 21 DEPR at 212; Matter of The Gallagher Group, Inc., Docket No. 2003-019, Recommended Final Decision, 12 DEPR 63, 64 (Mass. Div. of Admin. Law App., May 2, 2005), adopted by Final Decision (Mass. Dep't of Env'tl. Prot., July 8, 2005). The three evidentiary requirements applicable to affidavits supporting a summary decision motion—personal knowledge, competency and admissibility—apply as well to opposing affidavits. Matter of Whitney, Docket No. DEP-06-936, Partial Summary Decision, at 6-7 (Mass. Div. of Admin. Law App., Jun. 27, 2007). “Speculation and conjecture do not suffice to make this showing,” Matter of Town of Pelham Building Committee, Docket No. 98-054, Final Decision, 5 DEPR 127, 130 (Aug. 14, 1998), and neither do legal arguments or critiques of the moving party’s motion as insufficient to meet its evidentiary burdens, even if these are offered by a qualified expert. Id.; 5 DEPR at 134. What the opposing affidavit must present, instead, is a “factual rejoinder,” id., at 135, with competent evidence showing that the material facts are not established, contrary to what the moving party purported to show, or that the material facts are other than as the moving party alleged them to be. See Pelham, 5 DEPR at 136.<sup>8</sup>

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<sup>8</sup>/ Pelham was a wetlands permit appeal in which a ten residents group challenged a superseding order of conditions allowing the applicant town to construct a library, public safety building and associated stormwater management system. The group claimed, among other things, that the town’s wetlands permit application lacked information sufficient to determine whether the project complied with DEP’s Stormwater Management Policy Standards. The town moved for, and was granted, summary decision on these claims. Two elements of the summary decision granted in Pelham illustrate that critiques of a moving party’s evidence and legal arguments regarding evidentiary burdens do not suffice to show a genuine or material issue and defeat a summary decision motion, even if they are proffered in an expert’s affidavit:

(1) The town’s motion showed it to be beyond dispute that the project complied with Stormwater Management Policy Standard 1 (which provides that no new stormwater conveyances, such as outfalls, may discharge untreated stormwater directly to or cause erosion in wetlands or waters of the Commonwealth) and Standard 4 (which requires that stormwater management systems in new development be designed to remove 80% of the average annual load of total suspended solids under post-development conditions). The stormwater management narrative included in the town’s wetland permit application described how stormwater would be conveyed through grassed strips into drainage structures with sumps and riser pipes to remove up to 50% of the sediment load; in addition, drainage structures downstream of the infiltration structures would further assure that 80% of the sediment load would be removed. The group raised no genuine information sufficiency issue as to compliance with Standard;

2.

I review the competing summary decision filings first to determine whether Toll Brothers showed it to be beyond genuine dispute, that the documented no-flow condition in Scott's Brook was not significantly affected by drawdown from withdrawals of water supply wells, direct withdrawals, impoundments, or other man-made flow reductions or diversions at Heather Hill Country Club. Because Toll Brothers' motion makes this showing with competent, admissible evidence, I go on to determine whether the DeSisto group's opposing papers show that the issue of "significant affect" is genuinely disputed. I conclude that they do not make this showing.

a.

After these appeals were commenced, Toll Brothers' expert, professional geologist Raymond C. Johnson of Tetra Tech Rizzo (an environmental and engineering consulting firm), prepared a report in June, 2007 addressing the status of Scott's Brook and related hydrogeologic conditions

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moreover, it could not prove that the town did not furnish information sufficient to determine whether post-development runoff would be treated sufficiently before it was discharged to wetlands or waters, even though the group's expert repeated this argument in an affidavit opposing summary decision. 5 DEPR at 130-31. There was, in addition, no merit to the group's claim that the project plans showed a three-foot sump with variable distances to an outlet rather than the four-foot sump described in the town's stormwater management narrative. However, neither the group nor its expert identified any particular project plan or notation that specified the use of a three-foot sump, and neither was any such specification apparent from the plan; in addition, the town's engineer asserted, in her affidavit supporting the summary decision motion, that a four-foot sump would be used. 5 DEPR at 132-33.

(2) The group had also claimed that the town's wetlands permit application lacked information sufficient to determine whether the project was designed to comply with DEP Stormwater Management Policy Standard 2, which requires that post-development peak stormwater discharge rates would not exceed pre-development peak discharge rates. The town's summary decision motion showed that its wetlands permit application included an analysis of the 25 and 10-year 24-hour storms showing that post-development peak stormwater discharge rates would not exceed pre-development peak discharge rates, and that compliance with Standard 2 was therefore beyond genuine or material dispute. To stave off summary decision on its standard 2-related claim, the group needed to show with competent evidence (such as peak runoff calculations for the 2 and 10-year 24-hour storms) that peak discharge rates would exceed pre-development peak stormwater discharge rates. What the group filed, instead, was an affidavit by its professional engineer that criticized the town's stormwater management data. It did not claim inability to perform its own peak runoff calculations or stormwater runoff modeling. The group asserted instead (as did its expert in an affidavit opposing summary decision) that these calculations were the applicant's responsibility. As a result, the group had no countervailing evidence showing that project compliance with DEP's Stormwater Management Standard 2 was genuinely disputed. 5 DEPR at 133-34.

upgradient of the site, an area that included the Heather Hill Country Club golf courses and irrigation ponds (the 2007 Johnson Report).<sup>9</sup> Johnson's objective in preparing the report was to determine whether irrigation water withdrawals at Heather Hill Country Club "significantly impacted" flow in Scott's Brook at the Site between August 2 and 5, 2006, when no-flow conditions were observed.<sup>10</sup> On April 11, 2007, he observed the Site, the irrigation ponds at Heather Hill Country Club, the tributary flowing south from Heather Hill Country Club to Scott's Brook, four locations where Scott's Brook was crossed by public roadways in Plainville and North Attleborough, and locations at which the brook was observed to be dry in early August, 2006.<sup>11</sup> He returned to Heather Hill Country Club on May 2, 2007 "to review the history of the expansion of the [golf] course and operation of the irrigation system...,"<sup>12</sup> including golf course irrigation system records, well drilling records and information obtained from Heather Hill Country Club personnel. Johnson concluded that water withdrawals at Heather Hill Country Club for irrigation "did not significantly affect the no-flow condition of Scott's Brook observed and documented in August 2006,"<sup>13</sup> and that "[t]he observed no-flow conditions are a factor of the hydrogeologic characteristics of the basin, and are

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<sup>9</sup>/ "Report on Intermittent Status of Scott's Brook, The Estates at North Attleboro, North Attleboro, Massachusetts," prepared by Raymond C. Johnson, P.G., L.S.P. (Tetra Tech Rizzo, June 12, 2007), at 1. Johnson received a B.S. in geology from Allegheny College in 1979 and an M.B.A. from Clark University in 1992, has been a licensed and certified professional geologist for 23 years, and a Massachusetts licensed site professional for 14 years. He is a senior vice president of Tetra Tech Rizzo, where his responsibilities include "site assessments, surface and groundwater contamination studies, groundwater supply and zone of contribution analysis, and numerical modeling of groundwater flow," as well as managing and supervising field investigations, conducting geological and hydrogeological studies, evaluating "drainage basin characteristics and groundwater-surface water interaction," applying "USGS StreamStats," and defining watersheds and drainage areas. Johnson is a member of several professional associations including the American Institute of Professional Geologists. Motion of Toll Brothers, Inc. for summary decision (Sept. 28, 2007): supporting Affidavit of Raymond C. Johnson, sworn-to September 27, 2007 ("Johnson Aff."), at 1-2, paras. 1-2.

<sup>10</sup>/ Id.

<sup>11</sup>/ Id., at 2.

<sup>12</sup>/ Id.

<sup>13</sup>/ Id., at 1.

not in any way ‘directly related’ to the irrigation water withdrawals.”<sup>14</sup> Johnson adopted his report, and reiterated its conclusions as his opinions, in an affidavit supporting Toll Brothers’ summary decision motion.<sup>15</sup>

The 2007 Johnson Report described “a series of eleven unlined ponds of varying sizes” at Heather Hill Country Club “that are aligned along a generally north-south trending tributary to Scott’s Brook and connected by buried piping,” as well as two other ponds on the southwest portion of the Country Club, west of the tributary stream, that receive no surface water inflow and drain to the tributary stream via a buried concrete pipe near the Country Club’s southern boundary.<sup>16</sup> The northernmost of these ponds, at the head of the tributary stream—Pond 1— receives no stream inflow, indicating to Johnson “that the water which is present in the ponds and tributary originates only from groundwater inflow and overland runoff during precipitation events.”<sup>17</sup> Pond 2—the next pond to the south and the largest of the eleven golf course ponds—receives water directly from a six inch-diameter bedrock well adjacent to this pond’s western side, which was installed in 1993.<sup>18</sup> During the spring, this well was pumped day and night, yielding water at a rate of approximately ten gallons per minute (gpm), but it was shut down during the late summer when the yield dropped.<sup>19</sup> Similar wells installed in the same area of Heather Hill Country Club pumped at a rate of five gpm, “insufficient to warrant their use for the irrigation system and indicative of their generally low yield, low transmissivity, and limited fracturing of the bedrock in this area.”<sup>20</sup>

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<sup>14</sup>/ Id., at 9-10.

<sup>15</sup>/ Johnson Aff., at 4, paras. 8-9, and 7, last para. (entitled “opinion on intermittent stream status”).

<sup>16</sup>/ Id., at 2-3.

<sup>17</sup>/ Id., at 3.

<sup>18</sup>/ Id.

<sup>19</sup>/ Id.

<sup>20</sup>/ Id.

The 2007 Johnson Report related that to irrigate the Country Club's golf courses, water was pumped from Pond 2 (via intakes in a stilling well constructed of steel casing at the pond bottom and close-coupled vertical turbine pumps located in a pump house along the pond's western bank) through piping that was "configured to allow watering of the tees, fairways and greens for the entire 27-hole layout."<sup>21</sup> Irrigation was limited to the tees and greens during the late summer or early fall if pond levels fell.<sup>22</sup> Johnson learned from Country Club personnel that during the 1960s and 1970s, when the golf courses had 9-hole configurations, and during the 1980s, when one of them was converted to an 18-hole golf course, the irrigation system watered only the tees and greens and lacked piping for irrigating the fairways.<sup>23</sup> Country Club personnel informed Johnson that throughout all three decades, as at present, "there was no flow in the tributary stream during late summer..."<sup>24</sup>

Johnson also reviewed Country Club water withdrawal logs for 2006, which were based upon meter readings taken at the pump house along Pond 2. These logs showed that a total of 6,882,900 gallons of water were pumped in 2006 through the irrigation system between April and November of that year.<sup>25</sup> This figure is substantially below the water withdrawal volume of 22,000,000-54,000,000 gallons that the DeSisto group projected for the period May-October.<sup>26</sup>

The 2007 Johnson Report described the area's topography as "characteristic of glaciated uplands in this portion of Massachusetts," with "glacial till overlying relatively shallow bedrock"

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<sup>21</sup>/ Id., at 3-4.

<sup>22</sup>/ Id., at 4.

<sup>23</sup>/ Id.

<sup>24</sup>/ Id.

<sup>25</sup>/ 2007 Johnson Report, at Appendix B: Letter, Elmo C. Finnoch, Director of Operations, Heather Hill Country Club, to Constant S. Poholek, Esq., with attached 2006 water withdrawal logs. Of this volume, 176,900 gallons were pumped in May, 231,000 gallons were pumped in June, 1,856,000 gallons were pumped in July, 1,976,700 gallons were pumped in August, 829,700 gallons were pumped in September, and 1,167,800 gallons were pumped in October.

<sup>26</sup>/ See above, at 5.

and “numerous bedrock outcroppings” throughout Heather Hill Country Club and in the wooded area west of it.<sup>27</sup> The Country Club sloped generally toward the tributary stream from an elevation of 330 feet NGVD at the northernmost pond (Pond 1) to an elevation of approximately 275 feet NGVD at the golf course’s southern boundary.<sup>28</sup> The exceptions to this topographic tilt were the Country Club’s “extreme eastern portion,” which sloped toward the east, and its “extreme western portion,” which “slope[d] to the west-southwest, toward Scott’s Brook.”<sup>29</sup> The elevation of Scott’s Brook where no-flow conditions were observed in late July and early August 2006 was “approximately 250 feet, which was approximately 80 feet lower than the irrigation pond” (meaning pond 2) and 25 feet lower than the elevation of the tributary stream where it exited the Country Club.<sup>30</sup>

The 2007 Johnson Report noted that the Conservation Commission had reviewed photographs showing no flow in Scott’s Brook on July 28, 30, and 31, 2006 and on August 2-5, 2006, and that the town conservation agent had observed no-flow conditions on those dates as well.<sup>31</sup> According to the Report, this documented an observed no-flow condition once per day over four days in a consecutive 12 month period.<sup>32</sup> Records obtained from the Massachusetts Department of Conservation and Recreation documented, further, that in July and August 2006 there were no drought conditions in Southeastern Massachusetts (where North Attleborough is situated), or anywhere in the northeastern United States, which demonstrated that the observations of a no-flow condition in Scott’s Brook were made during a non-drought period.<sup>33</sup>

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<sup>27</sup>/ 2007 Johnson Report, at 4.

<sup>28</sup>/ Id.

<sup>29</sup>/ Id.

<sup>30</sup>/ Id.

<sup>31</sup>/ Id., at 5.

<sup>32</sup>/ Id.

<sup>33</sup>/ Id. According to the 2007 Johnson Report (at 5):

Records obtained from the Massachusetts Department of Conservation and Recreation (DCR)

Having identified four days of no-flow conditions in Scott's Brook during non-drought conditions, the 2007 Johnson Report turned next to whether water withdrawals at Heather Hill Country Club "significantly affected" the brook's flow, per 310 CMR 10.58(2)(a)1.d, and concluded that it did not, for these reasons:

(1) No surface water body flowed into the Country Club's most upgradient pond (Pond 1); in addition, there were bedrock outcroppings throughout the Country Club property, and surficial soils were characteristic of glacial till. These factors indicated that shallow groundwater and direct runoff from rainfall were the sources of water in the Country Club's ponds and in the tributary stream flowing southward from it. Shallow groundwater and direct rainfall runoff also controlled water levels in the ponds and tributary stream. Seasonal fluctuations in groundwater elevations and precipitation explained, thus, why, from mid- to late summer, there were periods of low water levels in the ponds and no flow in the tributary stream.<sup>34</sup>

(2) The Heather Hill Country Club irrigation ponds retained water during periods of higher groundwater table elevation and rainfall events that would otherwise flow from the golf courses more rapidly (to the south) via the tributary stream. The ponds acted, thus, "to maintain flow within the tributary stream for a longer period than would occur in [their] absence..."<sup>35</sup>

(3) No-flow conditions in the tributary stream were "a regular seasonal event," according to staff at the Heather Hill Country Club, who recalled observing the tributary to be dry during the summer beginning during the 1960s.<sup>36</sup>

(4) The elevation of Scott's Brook, which flowed west of the Country Club, was identical

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indicate that there was 2.46 inches of rainfall in Southeast Massachusetts in July 2006, which is 75% of the average monthly precipitation of 3.27 inches, and 3.64 inches of rainfall in August 2006, 93% of the average 3.92 inches. DCR records also show that conditions reflective of an "Advisory" or more severe drought did not exist in either July or August 2006. In fact, drought conditions did not exist anywhere in the northeast United States in either July or August 2006.

<sup>34</sup>/ 2007 Johnson Report, at 6-7.

<sup>35</sup>/ Id., at 7.

<sup>36</sup>/ Id.

to that of the tributary stream, and geologic and hydrogeologic features along both water bodies were identical as well.<sup>37</sup>

(5) Heather Hill Country Club personnel related that the section of Scott's Brook running west of the golf courses through a wooded area dried up each year. However, this area was outside of the drainage area associated with the golf course ponds and the tributary stream, indicating that no-flow conditions in the brook were not associated with water withdrawals from the Country Club's irrigation ponds.<sup>38</sup>

(6) At the site, stream flow in Scott's Brook was the product of drainage from two areas—the drainage area associated with the section of Scott's Brook that was upgradient of the Site (including the portion that flowed to the west of the golf courses), and the drainage area associated with the tributary stream flowing southward from the Country Club. When calculated by using StreamStats, an application developed by the United States Geological Survey,<sup>39</sup> the Scott's Brook

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<sup>37</sup>/ Id.

<sup>38</sup>/ Id.

<sup>39</sup>/ The U.S.G.S. website describes StreamStats and its uses in pertinent part as:

an integrated GIS application developed through a cooperative effort of the USGS and ESRI, Inc. (footnote omitted). StreamStats makes the process of computing streamflow statistics for ungaged sites much faster, more accurate, and more consistent than previously used manual methods. It also makes streamflow statistics for gaged sites available without the need to locate, obtain, and read the publications in which they were originally provided. Examples of streamflow statistics that can be provided by StreamStats include the 100-year flood, the mean annual flow, and the 7-day, 10-year low flow. Examples of basin characteristics include the drainage area, stream slope, mean annual precipitation and percentage of forested area. Basin characteristics are the physical factors that control delivery of water to a point on a stream.

See <http://water.usgs.gov/osw/streamstats/ssinfo.html>

DEP's preface to the preface to the 2002 revisions of the Wetlands Protection Regulations state that:

Some intermittent streams with a watershed size of between one-half and one square mile may be shown to be perennial if the USGS STREAMSTATS model predicts a positive flow or if the watershed contains at least 75% stratified drift. STREAMSTATS is a new statistical tool developed by USGS that can be accessed through the USGS web site at <http://ma.water.usgs.gov/streamstats/>. This web site provides valuable stream flow information to applicants and regulators alike. STREAMSTATS incorporates watershed size and geology into its calculations, and can be used to analyze the probability that a stream flows on a year-round basis at a particular location. That probability is reported in terms of flow duration

drainage basin was 1.07 square miles and the tributary stream's drainage area was 0.14 square miles, for a total of 1.21 square miles of drainage areas contributing to stream flow in Scott's Brook.<sup>40</sup> The tributary stream's associated drainage area represented, thus, 13 percent (actually, 12 percent) of the drainage area contributing to stream flow in Scott's Brook. In addition, "comparison of estimated stream flow for Scott's Brook and the tributary stream during D70 (70% flow duration) to D99 (99% flow duration) flow conditions indicates that the flow within the tributary is estimated to represent approximately 10 to 11.6% of the flow in Scott's Brook at the Site."<sup>41</sup> The drainage areas and flow comparisons demonstrated "that the flow contributed from the tributary stream is a minor portion of the total flow within Scott's Brook" at the Site.<sup>42</sup> Therefore, even if Scott's Brook was a perennial stream, the withdrawal of water from the tributary stream's contributing drainage basin for irrigation at the Country Club's golf courses "would not be substantial enough to result in no-flow conditions at the Site."<sup>43</sup>

(7) Streamflow information generated with StreamStats also suggests that drainage basin characteristics, rather than water withdrawals at the Country Club, explains why Scott's Brook cannot flow perennially. This information shows no stratified drift within the Scott's Brook drainage basin upgradient of the Site, including the tributary stream, indicating "a limited potential for storage

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statistics. Flow duration statistics indicate the percentage of time stream flows are equaled or exceeded at a given stream location. For example, if a stream's flow at the 99% flow duration is five cubic feet per second, the stream's flow is predicted to be greater or equal to that discharge rate 99% of the time. Streams with a predicted flow rate greater than or equal to 0.01 cubic feet per second at the 99% flow duration rate are considered perennial. The 99th percentile is the best available statistical expression of the statutory language "flows throughout the year."

310 CMR 10.00, rev. 12/20/02, Preface to Revisions of the Massachusetts Wetlands Regulations (310 CMR 10.00) Relating to the Definition of "Extended Drought" and Distinguishing "Perennial Rivers" from "Intermittent Streams", at A.2. *U.S. Topographic Maps and STREAMSTATS*, second unnumbered para.

<sup>40</sup>/ 2007 Johnson Report, at 7-8..

<sup>41</sup>/ *Id.*, at 8.

<sup>42</sup>/ *Id.*

<sup>43</sup>/ *Id.*, at 8.

of groundwater within overburden to sustain groundwater levels or stream flow during mid- to late summer.”<sup>44</sup>

(8) Because the watershed associated with the tributary stream flowing south from the Country Club is 0.14 square miles, and the predicted 99% flow duration (D99) is (per StreamStats) 0.0009 cubic feet per second (cfs), the tributary stream falls well within DEP’s profile of an intermittent stream—a stream with a watershed of less than 0.5 square miles and a StreamStats predicted D99 flow of less than 0.01 cfs. As an intermittent stream, the tributary stream “would not flow during dry periods of the year even in the absence of irrigation water withdrawals.” Therefore, water removed from the tributary stream drainage area for golf course irrigation purposes could not have affected Scott’s Brook significantly on August 2-5, 2006, when no-flow conditions were observed.<sup>45</sup>

(9) Golf course water withdrawal records showed “that total irrigation water withdrawals in 2006 were 6,882,900 gallons, approximately 12.75% of the withdrawal volume that the DeSisto group projected in its August 24, 2006 request for a superseding determination,<sup>46</sup> and upon which the group relied in asserting that water withdrawals at Heather Hill Country Club affected flow conditions observed at the Site on August 2, 3, 4 and 5, 2006.

(10) The DeSisto group appeared to assert in its superseding determination request that 50-60% of the water used for irrigation at the Country Club’s golf courses was expected to infiltrate soils and recharge groundwater, meaning that 40-50% of this withdrawn water was actually lost from groundwater. Assuming this figure to be true, the actual (meaning permanent) withdrawals from the irrigation ponds in July and August 2006 (based upon the irrigation water withdrawal records) were 10.5 gallons per minute in July 2006 and 11 gallons per minute in August 2006, “not enough to have

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<sup>44</sup>/ Id., at 9.

<sup>45</sup>/ Id.

<sup>46</sup>/ See above, at 4-5.

‘significantly affected’ Scott’s Brook at a location approximately one mile away.’<sup>47</sup>

For these reasons, Johnson concluded in the Report that Scott’s Brook would not flow perennially “but for” the irrigation water withdrawal at Heather Hill Country Club, and that, with documented no-flow conditions over the requisite time during a non-drought period, Scott’s Brook was an intermittent stream.<sup>48</sup>

In addition to adopting the Report and its conclusions, Johnson’s affidavit addressed the DeSisto group’s assertion that the construction of Pond 3, the largest of the Country Club’s irrigation ponds, may have affected the flow of the tributary stream southward to Scott’s Brook. He obtained a history of pond construction from the professional land surveyor who prepared Toll Brothers’ request for a determination of applicability and supplemental information that the Conservation Commission and DEP requested, from the Conservation Commission Chairperson, and from the Country Club’s grounds manager.<sup>49</sup> According to this history, none of which is contradicted, (a) Ponds 2 and 4 were approximately 500 feet apart before Pond 3 was built and were at the northern and southern ends, respectively, of a wetland, (b) water may have seasonally overtopped a berm along the southern boundary of Pond 2, for example after intense rainfall or as a result of snow melt, passing water southward into the wetland as a result, (c) a ditch was dug to drain the wetland area into Pond 4, (d) during the 1990s, the ditch and wetland were excavated to create Pond 3, (e) a wetland now extends on the eastern side of Ponds 2, 3 and 4, which conveys overland flow from Ponds 2 and 3 to Pond 4 during periods of high surface water elevation, and (f) the permeable berm at the southern end of Pond 3 and a section of rip-rap in the berm also allows water to flow from that

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<sup>47</sup>/ 2007 Johnson Report, at 9. The Report stated that “the irrigation water withdrawals occur at a location approximately one mile north-northwest of the Site...” The distance may actually be closer to three quarters of a mile. Nothing in the Report suggests, however, that the conclusion of no significant impact on brook flow at the Site resulting from water withdrawals at the Country Club’s golf courses depends upon whether the Site was actually one mile from the point of irrigation water withdrawal or was closer to three quarters of a mile from it.

<sup>48</sup>/ Id., at 10.

<sup>49</sup>/ Johnson Aff., at 5, para. 15.

pond to Pond 4.<sup>50</sup>

It was Johnson's opinion that the creation of Pond 3 did not reduce the flow of water in the tributary stream to the south of these ponds or, thus, from the tributary to Scott's Brook. Instead, this construction resulted in a continuous flow of water from Ponds 2 and 3 overland to Pond 4, via the wetland extending along their eastern side, and, as well, from water stored in Pond 3 to Pond 4 via the berm and its rip-rap section "when surface water levels are too low to result in overland flow."<sup>51</sup> This allowed water flow to be maintained within the tributary stream, "and therefore within Scott's Brook, for a longer period than would have existed prior to the creation of Pond 3."<sup>52</sup> Johnson concluded, therefore, that the alteration of the ditch and wetland area between Ponds 2 and 4 and the creation of Pond 3 "did not affect the documented no-flow conditions in Scott's Brook at the site," and "[m]ore importantly, the alterations did not decrease the size of the Country Club watershed";<sup>53</sup> in addition, "[t]he Pond 3 impoundment did not significantly change flow in the tributary stream so that 'but for' the impoundment the tributary stream or Scott's Brook would be perennial instead of the observed intermittent stream."<sup>54</sup>

b.

Toll Brothers' motion for summary decision showed it to be beyond genuine, material factual dispute that a documented no-flow condition in Scott's Brook was not "significantly affected by drawdown from withdrawals of water supply wells, direct withdrawals, impoundments, or other man-made flow reductions or diversions" at Heather Hill Country Club, and that Scott's Brook was, at the Site, an intermittent stream with no associated riverfront area. This showing was made with

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<sup>50</sup>/ Id., at 5-6, paras. 16-17.

<sup>51</sup>/ Id., at 6, para. 18.

<sup>52</sup>/ Id., at 7, para. 18.

<sup>53</sup>/ Id., at 7, para. 19.

<sup>54</sup>/ Id., at 7, para. 20.

competent, admissible expert analysis and opinion—the 2007 Johnson report and the Johnson affidavit adopting it.

Johnson's professional qualifications and familiarity with the site were unchallenged. His report and affidavit demonstrated his familiarity with the site, Scott's Brook, Heather Hill Country Club, the irrigation ponds, and the tributary flowing south from the Country Club to Scott's Brook, gained primarily through personal observation made shortly before the report and affidavit were prepared.

Johnson reviewed also golf course irrigation records and obtained a history of this irrigation from Country Club employees, who also related their observations of stream flow and no-flow conditions. Although the observations of others (such as golf course personnel) would not alone establish the admissibility of Johnson's opinions, they were not a substitute for his own professional judgment. They comprised, instead, a part of the history that Johnson obtained and then considered in forming his own expert opinion as to whether water withdrawals at the Country Club were responsible for no-flow conditions in Scott's Brook when they were observed during the summer of 2006, including his own observations. Johnson was qualified as a professional geologist to form this opinion, and his opinion testimony was admissible. His professional qualifications were not challenged, the opinion fell within the scope of his skills and knowledge as a geologist, and his professional experience included the application of skills similar to those he applied here, including the application of USGS StreamStats methodology, and the study and interpretation of data related to surface water and groundwater, groundwater supply, groundwater sources, the interaction between groundwater and surface water, and the identification, definition and evaluation of watersheds and drainage areas.

c.

The burden therefore shifted to the DeSisto group to show, with competent, admissible evidence, that the documented no-flow condition in Scott's Brook was "significantly affected by drawdown from withdrawals of water supply wells, direct withdrawals, impoundments, or other

man-made flow reductions or diversions” at Heather Hill Country Club, or that this alleged effect was indeed genuinely disputed. Its opposing papers did not make either of these showings.

The DeSisto group’s opposition consisted of an affidavit by professional wetland scientist and hydrologist Patrick C. Garner, sworn-to October 4, 2007, an unsworn letter by Plainville Conservation Agent Burton B. Bryan, dated August 17, 2006 addressed “to whom it may concern,” and a letter dated May 24, 2006 from U.S. EPA to the Country Club’s manager requesting information on the construction of an irrigation pond (Pond 3) in a wetland area that may have resulted in the discharge of dredged or fill material into waters of the United States.

The Bryan letter stated that “[g]iven the irrigation needs of a golf course, it is probable that water withdrawals have affected the stream flow, invalidating the observations that the stream is not flowing,” and that because U.S. EPA and DEP had “cited Heather Hills (sic) Country Club...for violation of federal and state wetlands laws related to constructing an irrigation pond on the stream flowing through the [golf] course and its adjacent wetlands without permits,” it was “therefore very likely” that golf course “activities” had “affected the stream flow on the tributary to Scott’s Brook.”

The group offered the Bryan letter to prove the truth of these assertions, but it is not admissible for this purpose. The letter is unsworn and the group offered no affidavit by its author. In addition, the letter does no more than speculate that “activities” at the golf courses had affected flow in Scott’s Brook, based in part upon an inference that the author drew from enforcement actions taken by regulatory agencies against the Country Club. It lacks any factual support for this inference, such as site observations or a review of golf course irrigation logs and water withdrawal volumes. The opinion that the letter presents regarding the “probability” that golf course-related “activities” affected brook flow is therefore inadmissible, both because it is hearsay and because the opinion lacks an identified factual foundation.

EPA’s May 2006 letter to the Country Club manager is competent to show that EPA requested information on the construction of Pond 3, but no more than that. The letter recites no finding that any documented no-flow condition in Scott’s Brook was significantly affected by

drawdown from withdrawals of water supply wells, direct withdrawals, impoundments, or other man-made flow reductions or diversions at the Country Club. It does not show, thus, that this effect, or its absence, is genuinely or materially disputed.

There remains only the Garner Affidavit to stave off the summary decision that Toll Brothers seeks. Garner has extensive experience in identifying and delineating wetlands and riverfront areas, and also co-authored (with DEP environmental analyst Heidi Davis) a guide used to determine whether a waterbody is perennial.<sup>55</sup> He is also familiar with the site and the surrounding area, including the Country Club's golf courses,<sup>56</sup> and in addition he reviewed the 2007 Johnson Report and Toll Brothers' other filings in this matter<sup>57</sup> and is therefore familiar with them as well.

Garner was unquestionably qualified to present expert opinion testimony regarding the effect of the Country Club's water withdrawals on flow in Scott's Brook. His affidavit falters not upon his qualifications, which are unchallenged, but because it does not demonstrate the existence of genuine, material facts precluding summary decision.

One of the criticisms that Garner leveled against the 2007 Johnson Report might have made this showing, had it been accurate. He faulted Johnson for concluding that irrigation withdrawals at Heather Hill Country Club do not significantly affect the flow of Scott's Brook "based on a mistaken interpretation of the results of the USGS StreamStats program for the Brook watershed."<sup>58</sup> Garner asserted that the watershed area of the Brook "is below the minimum area required to produce a valid output" using StreamStats methodology, and "[e]ven so, at D99 the output shows a 0.009 cfs flow, which must be rounded to 0.01—and 0.01 is the DEP threshold for a perennial stream," but Johnson "ignore[d] the product of this calculation, instead reaching a conclusion that

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<sup>55</sup>/ Opposition of ten residents group (October 9, 2007); Affidavit of Patrick C. Garner, sworn-to Oct. 4, 2007 ("Garner Aff."), at 1-2, paras. I-X.

<sup>56</sup>/ See Garner Aff., at 2 (above heading "General Observations"), para. X.

<sup>57</sup>/ Id., at 2, para. IX.

<sup>58</sup>/ Id., at 4, para. VI.

is the very opposite of that indicated by StreamStats.”<sup>59</sup>

What the 2007 Johnson Report states, however, is that when StreamStats methodology is used, “the predicted 99% flow duration (D99)” for the 0.14 square mile watershed associated with the tributary stream flowing south from the Country Club is “0.0009 cubic feet per second (cfs),” rather than 0.009 cfs as Garner stated.<sup>60</sup> The 0.0009 cfs flow rate figure led Johnson to conclude that “the tributary stream falls well within DEP’s profile of an intermittent stream—a stream with a watershed of less than 0.5 square miles and a StreamStats predicted D99 flow of less than 0.01 cfs.” 0.0009 cfs rounded to two decimal places would be 0.00 cfs, rather than 0.01 cfs as Garner asserted. Without question, a flow rate of 0.0009 cfs (whether rounded to a three or a two-place decimal figure—respectively, 0.001 cfs and 0.00 cfs) is below the intermittent stream flow threshold of 0.01 cfs that Johnson cited.

Johnson did not misinterpret, thus, the tributary stream flow figure he derived using StreamStats methodology. It is not genuinely disputed that this stream flow figure is less than 0.01 cfs. Because the stream flow figure and the size of the associated watershed are not genuinely disputed, it is also not genuinely disputed that the tributary stream matches DEP’s profile for an intermittent stream.

The remainder of Garner’s affidavit consists of additional criticisms of the 2007 Johnson Report and legal argument regarding the evidentiary sufficiency of Toll Brothers’ evidence. Garner asserted that:

(1) Johnson relied “repeatedly” upon “anecdotal” statements by unnamed Heather Hill

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<sup>59</sup>/ Id.

<sup>60</sup>/ See above, at 18, item (8). The StreamStats streamflow statistics report regarding the 0.14-square-mile drainage basin associated with Scott’s Brook shows the D99 flow rate as 0.000887 cfs, which, rounded to four decimal places, is 0.0009 cfs. This document was included as an exhibit to Johnson’s prefiled direct testimony on Toll Brothers’ behalf, which followed the summary decision motion. While I do not consider it in determining the sufficiency of the summary decision motion, I note that it confirms the StreamStats “D99 output” for Scott’s Brook, to which Johnson and Garner referred, as being 0.0009 cfs (Johnson’s figure) rather than 0.009 cfs, as Garner asserted.

Country Club staff,<sup>61</sup> and observations made by these “staff” were “not credible,” and were also “not persuasive or plausible,” especially in view of federal and state enforcement action against the Country Club for wetlands-related violations;<sup>62</sup>

(2) Johnson documented “11 impoundments along the tributary” (meaning, presumably, the golf course irrigation ponds) that “trigger *all* of the items noted in 310 CMR 10.58(2), including (1) drawdown by wells, (2) direct withdrawal of both groundwater supply and (3) surface water flow, flow reductions and diversions”;<sup>63</sup>

(3) The 2007 Johnson Report includes no actual calculations that Johnson performed, and nor did Johnson “conduct any hydrological analysis based on well observations downgradient of the [golf course] impoundments”; in addition, Johnson conducted no “river morphological study” or “surficial geology analysis,” each of which was, according to Garner, “a conventional tool commonly used by hydrologists before offering sweeping intermittent river conclusions,” and in addition, Johnson performed “no primary research whatsoever,” relying instead upon “dubious anecdotal reports and secondhand data”;<sup>64</sup>

(4) Although Johnson cited Heather Hill Country Club records showing irrigation-related water withdrawal volumes “significantly below” what DEP projected for a golf course of this size, “The quantities are substantial nevertheless”—more than 63,000 gallons daily “from the Brook watershed” in August, when the no-flow observations were made—and “[y]et, without further explanation,” or citation to supporting “scientific reports, published or unpublished literature, DEP reports or industry publications,” Johnson reached the “sweeping conclusion” that withdrawals in this range were not large enough to have significantly affected Scott’s Brook at a location approximately one mile away, a location whose pertinence Johnson did not explain;<sup>65</sup>

(5) The 2007 Johnson Report was “insufficient to meet the applicant’s burden of proof,” particularly since it did not “provide scientific and empirical evidence that the [water] withdrawals by [Heather Hill Country Club] do not materially affect the flow regime for Scott’s Brook,” and relied instead upon “untrustworthy anecdotal ‘comments’ by parties under DEP and EPA enforcement action,” and reached “mistaken conclusions” using StreamStats even though “the D99 output” showed that the stream was perennial;<sup>66</sup> and

(6) “Compilations of secondhand materials—a measured description of the Johnson report—are not appropriate evidence for such a sensitive determination” as must be made here

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<sup>61</sup>/ Garner Aff., at 3, para. II (under subheading “Technical Comments Regarding the Johnson Report”).

<sup>62</sup>/ *Id.*, at 3, para. III.

<sup>63</sup>/ *Id.*, at 4, para. V.

<sup>64</sup>/ *Id.*, at 4, para. VII.

<sup>65</sup>/ As to the significance of the one-mile distance to which Garner refers, Johnson explained that he was referring to the distance from the irrigation water withdrawal points at the Country Club to the site at which Toll Brothers proposed construction, although the Site appears to be actually less than a mile from where water is withdrawn at the Country Club. See above, at 19, n. 47.

<sup>66</sup>/ Garner Aff., at 5, para. X.

regarding the effect of water withdrawals on brook flow.<sup>67</sup>

These criticisms do not represent Johnson's work accurately. In fact, many ingredients entered into the factual mix to which he applied his knowledge and experience as a professional geologist, including not only the recollections of Country Club personnel but also his own site observations, his review of the Country Club's irrigation records, the location and areas of the watersheds associated with Scott's Brook and the tributary stream (neither of which is disputed), and his application of an accepted methodology (StreamStats) to determine the rate of flow in both waterbodies (see above, at 15-19). Garner's criticisms do not show, consequently, that Johnson's opinions furnish no reliable basis for determining summarily that water withdrawals at the Country Club did not significantly affect the no-flow condition observed in Scott's Brook. Nor do any of Garner's criticisms present competing facts needed to show that Scott's Brook would flow perennially at the Site "but for" golf course water withdrawals or, thus, that the facts material to resolving this issue are other than as Toll Brothers' summary decision motion shows them to be.

### Disposition

Summary decision on all of the issues identified for adjudication is granted in favor of Toll Brothers.<sup>68</sup>

In view of this outcome, and because DEP changed its position and now concurs that Scott's Brook has been shown to be intermittent at the site, the superseding determination appealed here should be modified to find that Scott's Brook is intermittent at the site and has no associated

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<sup>67</sup>/ Id., at 5, para. XI.

<sup>68</sup>/ Because Toll Brothers prevails on its motion for summary decision, there is no need to reach its motion for a directed decision. I note, nonetheless, that the Garner affidavit also comprised the DeSisto group's expert testimony in its direct case, and because it offered a critique of the 2007 Johnson Report and legal argument but did not present competing evidence, it did not suffice to establish a sufficient direct case for the group. A directed decision would have resolved this matter in Toll Brothers' favor, therefore, even if it had survived the summary decision motion and, in that instance, even if the DeSisto group had opposed the motion for a directed decision.

riverfront area, and DEP should issue a final determination of applicability reciting these findings.

Notice

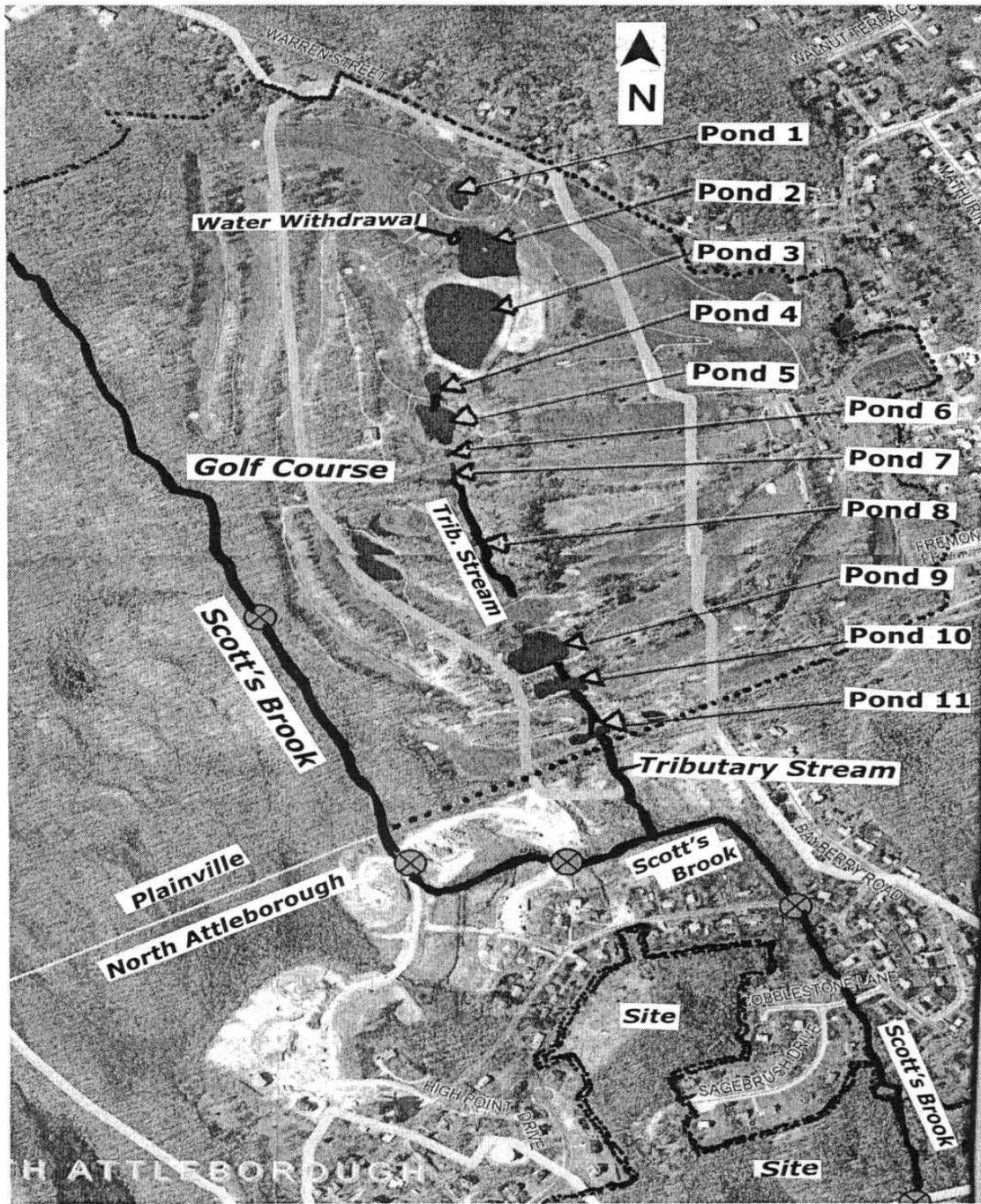
This decision is a recommended final decision of the Administrative Magistrate. It has been transmitted to the Commissioner of the Department of Environmental Protection for her final decision in this matter, including the issuance of a final order of conditions for the project at issue. This decision is therefore not a final decision subject to reconsideration, and may not be appealed to the Superior Court pursuant to M.G.L. c. 30A. The Commissioner's decision is subject to rights of reconsideration and court appeal and will contain a notice to that effect.

Because this matter has now been transmitted to the Commissioner, no party shall file a motion to renew or reargue this recommended final decision or any portion of it, and no party shall communicate with the Commissioner's office regarding this decision, unless the Commissioner, in her sole discretion, directs otherwise.

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Mark L. Silverstein  
Administrative Magistrate

SKETCH



⊕ = observation points along Scott's Brook (August 2006)