

April 28, 2022

Deerfield Conservation Commission
Deerfield Municipal Offices
8 Conway Street
South Deerfield, MA 01373
Attn: Timothy Hilchey, Chair

Re: Proposed North Main Street Park project at 135 North Main Street, Deerfield, MA

Dear Mr. Chairman and Members of the Commission:

Wetland Strategies and Solutions, LLC (“WSS”)¹, has been retained by Judith Rathbone of North Main Street to review the Notice of Intent filed for the proposed North Main Street Park Project at 135 North Main Street, Tax Map 151, Lot 1 (“the Site”). The Project includes construction of park, athletic fields, a band stand, parking, and associated features. Ms. Rathbone owns and resides at abutting property to the south, namely Tax Map 158, Lots 24 and 23.

WSS has reviewed a variety of documents pertaining to the proposed project, including,

- Notice of Intent (“the NOI”) Application “Deerfield Park & Playing Fields Map 151, Lot 1, 0 North Main Street South Deerfield, Massachusetts” dated February 2022 prepared by GZA GeoEnvironmental, Inc.);
- Plans entitled, “Proposed Municipal Park & Fields North Main Street South Deerfield, MA” dated 01/25/22, prepared by ProTerra Design Group, LLC (“the Site Plans”);
- Wetlands replication plan for compliance with the Massachusetts Wetlands Protection Act (“WPA”) and its implementing regulations;
- Limited Stormwater Hydrology Report dated December 13, 2021;
- Request for Determination of Applicability (RDA), dated August 13, 2020; and,
- The April 15, 2022, peer review report entitled, “Civil/Environmental Engineering and Permitting Peer Review Services, Deerfield, Massachusetts” from wood, plc, regarding the proposed project.

In addition, also reviewed were,

- Wetland and Wetland Change Areas Map, MassDEP Online Map Viewer (<http://maps.massgis.state.ma.us/images/dep/omv/wetviewer.htm>);
- Web Soil Survey, USDA-NRCS, <http://maps.massgis.state.ma.us/images/dep/omv/wetviewer.htm>, which shows Raynham Silt Loam, 0-3% mapped across nearly the entire project site. This soil series is classified as poorly drained with a depth to water table 0-4”, meaning it is likely saturated to surface for extended periods of the year; and,
- Several aerial images on Google Earth between April 1992 and October 2018.

¹ See <https://wetlandsns.com>

I visited Ms. Rathbone's property on March 14, 2022, to view the Site from her property boundary. It was unfortunate that the Town of Deerfield would not grant permission for me to enter the Site to evaluate that property with respect to the presence of Bordering Vegetated Wetland (BVW) and other potential Resource Areas under the Massachusetts Wetlands Protection Act ("WPA").

In an April 1, 2022, letter from attorney McLaughlin to Attorney Martin who represents the Town, attorney McLaughlin recounts a response from Attorney Martin regarding access: *Attorney Martin would not allow my client's experts to make entry onto the property and said in an email, "The property has been flagged and the Town does not want to risk having the flags disturbed."* Perhaps in response to a novice wetland scientist such reasoning might be legitimate. In this instance, it is frivolous reasoning. I am a well-recognized expert wetland scientist with more than 40 years of experience throughout the country. The Town's opposition to Site access is perplexing and raises questions as to why it would deny access to Town land by a representative of a town resident who pays taxes. Hence, my comments and questions below are limited to the documents reviewed and the on-line information, and constrained by the Town's imposed limitation.

Identification and Delineation of BVW and other Resource Areas Is Insufficient

The Determination of Applicability (DoA) and Notice of Intent (NOI), and the Limited Stormwater Hydrology Report for this proposed project are the only documents posted at the Town's website — (https://www.deerfieldma.us/sites/g/files/vyhlf3001/f/uploads/deerfield_park_noi_submitted_2-8-2022_compressed.pdf). None of these three documents contain sufficient information to determine if the identification and delineation of BVW is even approximately accurate. Figure 3 in the Limited Stormwater Hydrology Report shows the locations of approximately 76 flags in three series (A, B, and C). Yet, in the RDA, only one MassDEP Wetland Determination Data Form (Sampling Point A10-UPL) was included, and as labeled, that point is an upland. Again, this is completely insufficient to document the presence of wetlands and BVW boundaries shown on Figure 3. However, that Data Form concluded that the vegetation community at that sample point is hydrophytic (wetland). Assuming the Town is confident in its consultant's field work, the Town should provide the rest of the Data Forms on its web site or make them available upon request to provide the public with the opportunity to review the information.

Approximately 83% of the Site soils are mapped by the USDA Natural Resources Conservation Service (NRCS) as Raynham silt loam, 0-3% slopes. The Raynham series is classified as hydric (wetland), poorly drained, with a water table at 0 to 4 inches below the surface. Another 4% of the Site is mapped as having Walpole and Birdsall soils, also hydric. Because access to the Site was denied, I was unable to confirm the soil mapping and the extent of hydric soils. However, on the nearly flat site, it is highly likely that the NRCS mapping is mostly accurate. This soils information suggests that there are more wetland areas on the Site than show on the project plans.

In addition, from Ms. Rathbone's abutting property, I could see what appear to be several ground water monitoring wells. Again, the Town should post the monitoring results data, which would

be helpful to Town boards and the public as well in determining what are the groundwater levels which is an important factor that is needed to evaluate proposed wetland replication and stormwater management.

From my walk across Ms. Rathbone's property and observing the Site, the ground surface appears similar, that is, an undulating surface typically called pit and mount topography. Many of the pits on Ms. Rathbone's property were ponded, and I could see the same was true on the Site.

The GZA Notice of Intent Application

The characteristics of the proposed Site do not make it particularly well suited for development, especially for a park and sports fields. Considering Site soils and the high water table, a great deal of manipulation is necessary to attempt to make it more suitable for the proposed project. However, the extreme amount of fill and the drainage systems proposed will create the continual need for maintenance due to wetness and managing stormwater runoff.² The Town should explain how such long-term maintenance will be factored into the project, who will provide that maintenance, and how it will be funded.

My review of the Town's NOI and associated documents from GZA did not appear to include any evaluation of proposed project impact on the interests of the WPA (310 CMR 10.01), particularly,

- protection of ground water supply;
- flood control;
- prevention of pollution; and,
- protection of wildlife habitat.

An evaluation of the potential impacts from the proposed park on these interests should have been provided.

In its NOI at Table 2, Compliance with Performance Standards for Work within Bank, GZA states that,

[t]he proposed Bank impacts are less than 50 LF and less than 10% of the total Bank length. Therefore, the WPA regulations do not consider this work to adversely affect the wildlife habitat functions of the Bank.

However, the full regulation reads,

... the capacity of the Bank to provide important wildlife habitat functions. A project or projects on a single lot, for which Notice(s) of Intent is filed on or after November 1, 1987, that (cumulatively) alter(s) up to 10% or 50 feet (whichever is less) of the length of the bank found to be significant to the protection of wildlife habitat, shall not be

² See the extensive comments of Chessia Consulting Services, LLC.

deemed to impair its capacity to provide important wildlife habitat functions. *In the case of a bank of a river or an intermittent stream, the impact shall be measured on each side of the stream or river.* Additional alterations beyond the above threshold may be permitted if they will have no adverse effects on wildlife habitat, as determined by procedures contained in 310 CMR 10.60. (italics added)

My review of the GZA NOI and several aerial images of the Site, including the MassDEP online mapping, clearly show the intermittent stream along the southern property boundary *and* what appears to be not just a wetland in the center of the property but another intermittent stream running longitudinally down the center within the wetland. The presence of another intermittent stream would likely exceed the 50 LF standard in the regulation. Therefore, the Applicant may be required to complete and file a Wildlife Habitat Evaluation..

In addition, Bloody Brook, which is located directly across North Main Street, from the site of the proposed park, is a perennial stream (see USGS StreamStats, <https://www.usgs.gov/mission-areas/water-resources/science/streamstats-streamflow-statistics-and-spatial-analysis-tools>) and the WPA establishes a 200 foot Riverfront Area (“RFA”) which extends onto the eastern end of the Site. I did not see an acknowledgement of the RFA or the regulatory provisions that flow from that designation, such as an alternatives analysis examination for the project.

There are a number of other issues and questions that are raised by the GZA NOI:

1. Other locations in Town that were evaluated for the proposed park and playing fields and that would result in fewer impacts to regulated wetlands.
2. When and with whom the Town checked at the Army Corps of Engineers in Concord, MA, regarding the extent of jurisdictional wetlands and potential need for federal authorization under the Clean Water Act.
3. The identity of the Environmental Professional tasked with performing the monitoring for the construction of the Replication area.
4. In addition to simple percent areal cover, the other parameters that will be monitored in the Replication area.
5. No information was contained in the Site Plans or the NOI regarding the presence and types of invasive plant species that are present at the Site. A major concern for replication areas is invasive plant species. The Town should explain how the Replication area and Site will be monitored for invasive species, and the contingency plan(s) for controlling invasive species.
6. The source of soils for the Replication area and how those soils will be evaluated to prevent invasive plant species from being inadvertently introduced to the Replication area.
7. Figure WR-1 of the site plans lists three tree species to be planted in portions of the Replication Area—swamp white oak (*Quercus bicolor*), yellow birch (*Betula alleghaniensis*), and red maple (*Acer rubrum*). The Town should explain why the oak and birch species are

proposed and identify where these two species currently exist at or in close proximity to the Site.

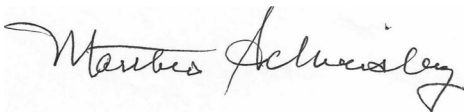
8. Figure WR-1 lists four shrub species to be planted in the Replication Area—sweet pepperbush (*Clethra alnifolia*), highbush blueberry (*Vaccinium corymbosum*), winterberry (*Ilex verticillata*), and spicebush (*Lindera benzoin*). The Town should explain why these shrub species are proposed and identify where these four species currently exist at or in close proximity to the Site.
9. Table 2 of the NOI dismisses the wildlife habitat functions of the Site because “[t]he proposed Bank impacts are less than 50 LF and less than 10% of the total Bank length. Therefore, the WPA regulations do not consider this work to adversely affect the wildlife habitat functions of the Bank.” Actually, the regulation at 310.54(4) reads —

... that (cumulatively) alter(s) up to 10% or 50 feet (whichever is less) of the length of the bank found to be significant to the protection of wildlife habitat, shall not be deemed to impair its capacity to provide important wildlife habitat functions. In the case of a bank of a river or an intermittent stream, the impact shall be measured on each side of the stream or river.

The GZA Application should explain how the proposed project complies with this General Performance Standard. As discussed above, it is likely that more than 50 feet of Bank will be altered.

Please let me know if you have additional questions. Thank you.

Sincerely,



Matt Schweisberg, Principal
Senior Professional Wetland Scientist #723