

MEMORANDUM #2

TO: Town of Southborough
Zoning Board of Appeals
9 Cordaville Road
Southborough, MA 01772

FROM: Lucas Environmental, LLC
Joseph H. Orzel, PWS, CWS
Christopher M. Lucas, PWS, CWS, RPSS

DATE: November 8, 2024

PROJECT NUMBER: 10030.213

RE: Comprehensive Permit Review
120 Turnpike Road
MassDEP WPA File #290-1120

Lucas Environmental, LLC (LE) has completed a review of new and revised materials submitted as of November 4, 2024, in support of a Comprehensive Permit application under M.G.L. c.40B, §21-23, and 760 CMR 56.00, and under the Massachusetts Wetlands Protection Act M.G.L. c. 131 §40 (WPA) and its implementing regulations 310 CMR 10.00 *et seq.*, for a project located at 120 Turnpike Road in Southborough, Massachusetts. The project has also been reviewed with respect to the Southborough Wetlands Protection By-law (Chapter 170), and the Southborough Wetland Regulations as requested by the Town of Southborough Zoning Board of Appeals (ZBA).

1.0 New & Revised Documents Reviewed

- Letter to Southborough ZBA Explaining Response to Conservation Commission Letter titled *Comprehensive Permit Application for 120 Turnpike Road, Southborough*, prepared by Expedited Engineering, LLC, dated November 4, 2024.
- Letter to Southborough ZBA Explaining Response to Lucas Environmental, LLC Letter titled *Comprehensive Permit Application for 120 Turnpike Road, Southborough*, prepared by Expedited Engineering, LLC, dated November 4, 2024.
- *Site Plan of Land at 120 Turnpike Road in Southborough, Massachusetts*, prepared by Expedited Engineering, LLC, dated October 25, 2023, and last revised October 30, 2024. Stamped by James L. Tetreault, PE.
- *Revised Erosion & Sedimentation Control Plan, Sheet ESC3*, dated October 25, 2023, and last revised November 7, 2024. Stamped by James L. Tetreault, PE.
- “*List of Requested Waivers from Applicable Town of Southborough By-laws and Regulations*,” (16 Pages) Clean Version dated November 4, 2024.
- “*List of Requested Waivers from Applicable Town of Southborough By-laws and Regulations*,” (17 Pages) Redlined Version dated November 4, 2024.
- Graphic titled “*Plot to show Mitch the alteration in 20 foot no disturb.pdf*,” received via email November 6, 2024

- Four emails summarizing the Buffer Zone impacts, received November 6-7, 2024, from Expedited Engineering, LLC, James L. Tetreault, PE.

2.0 Comments and Requests for Additional Information

The following are our comments and/or requests for additional information related to the project design. Additional materials submitted to the Southborough ZBA during the course of the public hearing will be reviewed by LE and commented on, as needed.

LE has not reviewed the stormwater management system or Stormwater Management Report as requested by the ZBA, except where it directly pertains to the WPA jurisdiction. LE understands that the Southborough Conservation Commission and Land Design Collaborative (LDC) have provided comments related to stormwater. Additional materials submitted will be reviewed by LE and commented on, as needed.

A virtual Working Session was conducted on November 6, 2024 with James Tetreault from Expedited Engineering, LLC (EEL), Mitch Maslanka from Goddard Consulting, LLC, Mike Scott from LDC, Christopher Lucas from LE, and Lara Davis from the Town of Southborough.

The original LE comments are provided in plain text, responses from the Applicant are underlined, and new LE comments are provided in **bold** text.

Wetland Delineation Comments per the WPA

A Professional Wetland Scientist (PWS) from LE conducted site inspections of the wetland resource areas on May 23, 2024, and August 26, 2024. During the August inspection, the wetland delineations were reviewed along with the Applicant's wetlands consultant, Goddard Consulting (GC), and several revisions to the delineation were agreed upon in the field. In addition, the site was inspected for additional wetland resource areas and delineated wetlands were inspected. The following comments summarize the wetlands field review on that date, with outstanding items to be addressed.

1. Wetland flags labeled A1-1R and A1-2R were added to the north end of wetland "A", located to the west of the proposed project. This revision connects the Bordering Vegetated Wetland (BVW) to the area of the catch basin indicated on the Plans. LE recommends that the revised delineation be added to the Site Plans. LE anticipated the revised Site Plans were going to include the adjusted wetland delineation boundaries, per discussion during the site visit.

EEL: These flags have been added to the Plans.

LE: No further comment at this time.

2. Under MassDEP File #290-1046, the Pond located north of the proposed building and east of the #120 Turnpike Road building had previously been delineated with BVW and approved as a jurisdictional resource area for the project. Plans submitted for that project indicated the Pond as "Regulated Wetland" with "Pond" and "Bordering Vegetated Wetland" (Proposed Site Plan of Accessory Parking Garage in Southborough, MA, prepared by Connorstone Engineering, Inc., dated April 12, 2019, and revised May 16, 2019).

The Pond had been previously delineated by GC with wetland flagging labeled C-1 through C-39, with some flags missing at the time of the inspection. LE recommends that this delineation be added to the Site Plans including the corresponding 100-Foot Buffer Zone. LE will need to review the missing flags once replaced in the field.

Section 310 CMR 10.02(2)(c) of the WPA Regulations states *Notwithstanding the provisions of 310 CMR 10.02(l) and (2)(a) and (b), stormwater management systems designed, constructed, installed, operated, maintained, and/or improved as defined in 310 CMR 10.04 in accordance with the Stormwater Management Standards as provided in the Stormwater Management Policy (1996) or 310 CMR 10.05(6)(k) through (q) do not by themselves constitute Areas Subject to Protection under M.G.L. c. 131, § 40 or Buffer Zone provided that:*

- 1. the system was designed, constructed, installed, and/or improved as defined in 310 CMR 10.04 on or after November 18, 1996; and*
- 2. if the system was constructed in an Area Subject to Protection under M.G.L. c. 131, § 40 or Buffer Zone, the system was designed, constructed, and installed in accordance with all applicable provisions in 310 CMR 10.00.*

Per the Conservation Commission, “*The stormwater management system was designed and permitted in 1983.*” As such, Wetland C would be an Area Subject to Protection under M.G.L. c. 131, § 40 with a 100-Foot Buffer Zone.

EEL: We had intended to contest this point but, upon further consultation with the project’s wetlands scientist, we agree with this comment. We added the 20 foot no disturb and 100 foot buffer zones around the previously flagged wetlands. We also moved the proposed apartment building and garages to the west so that we could deal with stormwater runoff while not having infiltration within 50 feet of the pond or its wetlands.

LE: The Applicant has concurred that the area is a resource area. The limit of the Pond and the associated buffers have been added to the plans; however flags are missing. This should be noted and will need to be confirmed through the Notice of Intent review with the Conservation Commission. LE notes that the flag numbers do not appear consistent with those observed in the field.

The Applicant indicated during the working session that the flagging represents the 2022 delineation with gaps provided from the 2024 delineation. This will need to be confirmed through the final delineation review with the Conservation Commission, and will be required to reflect the most recent delineation for the Notice of Intent review (NOI). Further wetland delineation changes could require additional plan revisions.

3. A BVW had been previously delineated by GC in the area east of the proposed building with flags labeled D-1 through D-12. A small Isolated Vegetated Wetland in the same general area had been delineated by GC with flags I-1 through I-4. LE recommends that these delineated wetlands be added to the Site Plans. If these are located off-site, the 100-Foot Buffer Zone from the BVW should be added to the Plans if it extends onto the project site.

EEL: These delineated areas east of the pond and their associated buffer zones have been added to the Plans. Both are located on this site.

LE: No further comment at this time, pending a final field inspection.

4. A seepage slope, located at the southeast corner of the existing parking lot where the building is proposed, was inspected. This slope contains wetland vegetation and hydric soil. Based on discussion at the time, it is LE's understanding that GC was to return to further delineate that area (as the GC scientist that was present was not the scientist who had been conducting the delineations for the site). LE recommends that the Applicant provide additional information regarding the status and delineation of this area. LE will need to review the area again.

EEL: This isolated wetland resource area has been added to the Site Plans. It will be altered as part of the proposed work and a wetland replication area off the south of flag D-6 will be created in compensation.

LE: LE will need to field verify the delineation of this area. It appears smaller than observed in the field. Joseph Orzel from LE was able to briefly inspect the area on November 7th and indicated that the delineated wetland does appear smaller than the actual size.

During the working session, EEL noted that there was recent disturbance to the area around the seepage, and GC noted that the area was historically observed. Based upon LE's review of the site on November 7th, both are accurate as there has been historic disturbance and recent disturbance since LE's last site inspection.

During the Working Session, the Applicant's team agreed to commit to 2:1 mitigation through the ZBA for replication of this area, once the final delineation is agreed upon. LE will review the areas along Wetland C, D, Z, and A to determine the best location for the replication area, as the proposed location is questionable. LE suggests that this be noted as a Condition of any ZBA approval.

General Comments per the WPA

5. Per Sections 310 CMR 10.02(4) and 310 CMR 10.02(5) of the WPA, Wetland C (Pond) should not be used for stormwater management purposes. LE defers to LDC on this issue if it is being used as such. If so, LE can provide further review and comment as related to the WPA.

EEL: The existing drainage systems of 118 and 120 Turnpike Road have multiple discharges into the pond(s). The proposed drainage system does not propose any new use of the ponds for detention.

LE: No further comment at this time. LE defers to LDC.

6. In the List of Requested Waivers, the waiver request from locating the proposed recirculating sand filter (RSF) within 100 feet of a BVW, located within a Surface Water Supply, states that the existing MassDEP approved RSF is located within 100 feet of a BVW to a Surface Water Supply. As indicated on the Plans, the existing RSF appears greater than 100 feet from the Pond edge (it is not clear how far it is from the BVW edge as the BVW is not shown). The proposed RSF is located approximately 48 feet from the BVW, significantly closer to the BVW than the existing RSF, and well within 100 feet. LE recommends that the Applicant describe why another location further from the BVW is not possible and provide alternatives to the proposed location.

EEL: 310 CMR 15.211 calls for treatment units to be located 25 feet from bordering vegetated wetlands. It calls for them to be 100 feet from wetlands bordering surface water supply tributaries. The tributary identified on DCR's maps is the flow now carried by a 48 inch rc pipe from properties to the west to a point beyond the ponds and just a few feet short of this site's property boundary. The relocated recirculating sand filter will be more than 100 feet from that tributary.

LE: Comment remains. Wetland A has a direct connection through the culverts, and would be classified as a wetland bordering a surface water supply and should be afforded such protections, as noted above.

The Applicant has revised the design to relocate the RSF to the west of Wetland A, outside of the 100-Foot Buffer Zone. The Applicant should identify how the RSF is connected to the leaching area and septic system.

7. The Buffer Zone impact numbers need to be revised upon the addition to Wetland C and associated 100-Foot Buffer Zone to the Site Plans. It appears that a significant portion of the proposed parking, approximately the northern half of the proposed building, and stormwater features are located within this 100-Foot Buffer Zone.

EEL: The impact numbers will be revised and re-submitted.

LE: LE has reviewed the revised numbers sent via four separate emails. LE suggests that the Applicant submit a clear and concise table summarizing all the Buffer Zone impact numbers for the ZBA's record prior to closing the Public Hearing. Approximately 25% of the total 100-Foot Buffer Zone on the site and 6% of the 20-Foot No-Work Zone will be altered. The table should include a breakdown of the impacts to existing disturbed/developed areas versus impacts to undeveloped/forested areas of the site in the Buffer Zone to provide further clarity on the impacts. LE understands that the impact numbers are subject to change depending on the final location of the replication area and access.

8. As the BVW – Wetland A is classified as bordering on a tributary to a Class A Public Water Supply and ORW, the Applicant should evaluate the Title V minimum setback requirements of 100 feet to the soil absorption system per 310 CMR 15.000.

EEL: The proposed soil absorption system is more than 100 feet from Wetland A. It is a much greater distance from the tributary on DCR's maps.

See Comment #6.

9. Per the MA Stormwater Management Standards, the *stormwater discharges to ORWs must be set back from the receiving water or wetland and receive the highest and best practical method of treatment.* Infiltration structures require a minimum setback of 50 feet.

EEL: We revised the project layout allowing us to lessen the size of the infiltration area and keep it 50 feet from the wetland surrounding the ponds.

LE: No further comment at this time.

10. LE notes that the Environmental Analysis submitted with the Application references one wetland system being present on the development parcel. As clarification, there are two wetland areas, the wetland to the west of proposed work (Wetland A) and the Pond to the north of proposed work (delineated in the field with "C-series" flags). However, these areas are connected downstream via culverts that discharge to another wetland system.

EEL: No response is necessary.

LE: No further comment at this time.

11. As Wetland A is located on a seepage slope and work is proposed within close proximity, the Applicant should demonstrate and document that the proposed grading, sand filter, and leaching area will not alter the hydrology feeding Wetland A, to ensure that there is no adverse effect to the BVW.

EEL: We will submit drainage calculations comparing flow to Wetland A pre and postdevelopment.

LE: During the Working Session, LDC indicated that impacts to the hydrology are not anticipated to Wetland A, particularly in discussion with relocation of the sand filter to the west. LE defers to LDC.

12. The Landscape Plan does not indicate the proposed described seeding areas on the Plan. LE recommends that these be added to the Plan.

EEL: The revised Landscape Plan references only lawn seed mix and slope seed mix. The proposed slope seed mix will be used where slopes are steeper than 3:1. We added to sheet D5 an inset of the portion of the site to be developed with the areas having slopes steeper than 3:1 that will have geotextile fabric applied for stabilization. The slope seed mix will be used in those areas.

LE: The additional information appears appropriate to address LE's comment. The response to the Conservation Commission Comment #22 indicates the use of a Detention Basin seed mix if the Ponds are inadvertently altered, and a wildlife seed mix to repair accidental alteration of wooded areas beyond the limit of work. LE recommends a Wetland Seed mix for jurisdictional resource areas; however, the Applicant should explore additional erosion control measures to ensure that there is no inadvertent alteration to the resource areas or other areas outside the limit of work.

13. LE recommends that the Plans be revised to indicate the locations of proposed erosion control blankets and note that any erosion control blankets utilized should be free of plastic netting.

EEL: As noted in the previous comment, an inset of the work area was added to sheet D5. The erosion control blanket proposed on slopes steeper than 3:1 on this site is North American Green's SC150BN which is rated for use on slopes as steep as 1:1 and which does not include plastic netting.

LE: No further comment at this time.

14. LE recommends that a Plan sheet be included that shows proposed locations of construction phase stormwater basins, soil stockpiles, and the location of the construction entrance.

EEL: These have been added to the Erosion & Sedimentation Control Plans.

LE: The locations have been identified. A temporary settling basin is proposed in proximity to Wetland C. This will require further review during the Notice of Intent review process with the Conservation Commission, due to the proximity to the resource area. The construction exit mat is not labelled and proposed over the location of the 6-inch force main. The Applicant should confirm this will not create an issue for installation of the force main.

15. In the Pollution Prevention Plan notes on Detail Sheet D4, it is noted that erosion control inspections are to occur after any storm of 0.5 inch or greater. Under the National Pollution Discharge Elimination System (NPDES) General Construction Permit (CGP) for Massachusetts, inspections are required every seven days and after rainfall events of 0.25 inches or greater. LE recommends that the Plan be revised to be consistent with the NPDES GCP.

EEL: This change was made as suggested.

LE: No further comment at this time.

16. In the Erosion Control Devices or Procedures notes on Detail Sheet D4, it indicates “Hay or straw mulch with tackifier”. LE recommends this be revised to state only “straw” to avoid the use of hay which may contain seeds of weeds or invasive species.

EEL: This change was made as suggested.

LE: No further comment at this time.

17. LE notes that the date of the wetland delineation is not included on the Site Plans. LE recommends that this be added to the Plans.

EEL: This change was made as suggested.

LE: No further comment at this time.

18. LE notes that no connection is indicated on the Site Plans from the building to the proposed septic leach field. LE recommends this be added to the Plan.

EEL: The discharge from the building to a first septic tank, that tank and a second tank and a pump chamber and the force main line up to the soil absorption system have been added to the Plans.

LE: No further comment at this time.

19. The Applicant should provide further details on how the six-foot high retaining wall near the pond will be constructed without impacts to the wetland, particularly with the limit of work/erosion control in that area.

EEL: With the revision to the site layout, that retaining wall was moved to be outside the Town's 20 foot no disturb zone.

LE: The retaining wall has been relocated further from the resource area outside the local 20-Foot No-Work Zone. The erosion control limit was adjusted to avoid the local setback, although a very small portion clips it. It is not clear if that is due to the line type. The Applicant to clarify.

20. A snow storage area is proposed in close proximity to the BVW/Pond. Alternate locations for snow storage outside the 100-Foot Buffer Zone should be considered.

EEL: We moved that snow storage area from the northeast corner of the parking and driving aisle to the southeast corner in deference to this concern.

LE: No further comment at this time.

21. LE also notes the following comments from MassDEP regarding the proposed project:

The Commission should field verify the delineation, particularly near the proposed access driveway due to its proximity to flags A-1, A-2 and A33. Please provide a table comparing pre- and post-construction peak flows. Test pits are required at the location of any infiltration BMP, one sample for every 5,000 sf of basin to verify seasonal high groundwater and soil type. While there appears to be test pits, a test pit per basin does not appear to be shown on the plans and do not appear to be situated at each infiltrating BMP. Please provide additional information for where BMPs are situated and confirm the depth is at least 2 ft to seasonal high groundwater and/or bedrock. If less than 4 ft to SHGW, a mounding analysis is required. A detail on the separation from SHGW should also be

provided. See V2, Ch2, p88 of the MA Stormwater Handbook. All treatment trains require an individual TSS worksheet. Please provide and ID all TSS sheets for their individual treatment train.

EEL: The reconfiguration of the project from the first location proposed for the building eliminates some of DEP's cited concerns. We excavated additional deep observation holes on site and show a 4 foot separation to seasonal high groundwater from the infiltration system below the PICP surface.

LE: LE defers to LDC for the stormwater comments.

Southborough Wetlands Bylaw Comments

The following are our comments with respect to the additional protections under the Southborough Wetlands Protection Bylaw and its implementing regulations, related to work proposed within 20 feet of wetland resource areas and additional wetland values and performance standards, if applicable.

22. The Comments provided by LE under the previous sections are also applicable under the Bylaw.

EEL: No response is necessary.

LE: Comments are provided above.

23. LE recommends that both the 100-Foot Buffer Zone and the Bylaw 20-Foot No-Work Zone should be included on the Plans to indicate where work is occurring in these areas.

EEL: This was done as suggested.

LE: All plan sheets should identify the Buffer Zones, including the Existing Conditions sheets.

24. The Landscape Plan indicates a number of species proposed for planting within the 100-Foot Buffer Zone that are not native to Massachusetts, or where a cultivar of a native species is proposed. As general policy, the Southborough Conservation Commission and MassDEP require planting native, non-cultivar species within the 100-Foot Buffer Zone. LE recommends that the Applicant revise the planting plan to include only native straight species within the 100-Foot Buffer Zone.

EEL: As part of this process, we are requesting a waiver from the Town Bylaw prescribing only native non-cultivar species.

LE: LE advises against the use of non-native or cultivar species, related to the Waiver Request for § 174-13(B)(10)(c). Non-native plants are not better suited for development projects.

In Massachusetts, the Massachusetts Invasive Plant Advisory Group (MIPAG), a voluntary collaborative representing organizations and professionals concerned with the conservation of the Massachusetts landscape, has been charged by the Massachusetts Executive Office of Energy and Environmental Affairs (EOEEA) to provide recommendations to the Commonwealth regarding which plants are invasive and what steps should be taken to manage these species.

Non-native invasive plants often displace native species over a relatively short period of time, often resulting in monotypic plant communities that lack species diversity. Species diversity is essential to maintaining an ecological balance. As is true with most exotic or non-native species, those found at the site are increasingly common throughout eastern North America, where their spread has led to a decline in species richness and cover of the local native plant communities.

Based upon LE's experience working with the Conservation Commission, only native, non-cultivar species are typically approved through the Notice of Intent review process. During the Working Session, the Applicant's team indicated that they are amenable to this request. LE suggests that this Waiver not be granted and the ZBA include a Condition that only native and non-cultivar species be used on the site, for any ZBA approval.

25. The Applicant should update the Waiver Request #1 per the Chapter 170, Wetlands Protection, upon review of revised plans to correctly identify the Pond/BVV Wetland C and associated Buffer Zones.

EEL: We agree.

LE: Comment remains. The Waiver was not revised; however, during the Working Session, the Applicant's team indicated it would be resubmitted. As of the date of the Memorandum, LE has not received an updated Waiver request.

Additional Comments

26. The Applicant proposes an irrigation well in proximity to the Wetland C. During the Working Session, the Applicant's team agreed to move the well further from the resource area and outside the 100-Foot Buffer Zone. LE recommends a Condition indicating this for any ZBA approval.

27. The Buffer Zones to Wetland C should reflect the Pond to the northwest. Sheet ESC3 has been updated to remove the Buffer Zone limits from Wetland C that extend into this Pond. The entire Plan set should be updated to include this revision.

The comments provided above are based on the plans, documentation, and supporting information received at the time of this review. Any revision to the plans, documentation, and supporting information will require additional review. LE has no further comments as this time.