

Ms. Breeka Lí Goodlander, Agent
Town of Franklin Conservation Commission
355 East Central Street
Franklin, MA 02038

April 15, 2024

Re: Miscoe Brook Culvert Replacement – South Street over Miscoe Brook
MassDEP File No. 159-1289
Notice of Intent Peer Review

Dear Ms. Goodlander and Members of the Board:

On behalf of the Town of Franklin DPW, TEC, Inc. (TEC) is providing this response to the peer review letter prepared by BETA Group, Inc. (BETA) dated March 19, 2024, on behalf of the Town of Franklin Conservation Commission, and the MassDEP File Number Comments for the Notice of Intent for the proposed Miscoe Brook culvert replacement on South Street located in Franklin, MA. BETA comments are presented in plain text, TEC response in bold text.

Plan and General Comments

- A1. MassDEP has issued a file number with the following technical comments:
- a. It appears that this project includes dredging within an outstanding resource water and shall require a 401 Water Quality Certificate.
 - b. This project appears to result in a net loss of 30sf of BVW. As per 310 CMR 10.55(4)(c) the issuing authority may issue an Order of Conditions permitting work which results in the loss of a portion of Bordering Vegetated Wetland when; 1. said portion has a surface area less than 500 square feet; 2. said portion extends in a distinct linear configuration ("finger-like") into adjacent uplands; AND 3. in the judgment of the issuing authority it is not reasonable to scale down, redesign or otherwise change the proposed work so that it could be completed without loss of said wetland. The Applicant must demonstrate that the loss is within a fingerlike projection, or the net loss will require a 401 Water Quality Certificate.

As noted in Comment W14, BETA concurs with MassDEP's comment regarding wetland replication. However, BETA is not aware of Miscoe Brook or its associated wetlands qualifying as Outstanding Resource Waters per the definition in 314 CMR 4.022. Based on the provisions of 314 CMR 4.06(2)3 and Miscoe Brook's absence from the tables in 314 CMR 4.06(6), the Resource Areas at the Site would only qualify as Class B, High Quality Waters.

TEC Response: As noted, Miscoe Brook is not considered an Outstanding Resource Water as confirmed by MassDEP via email to TEC and Ms. Goodlander dated March 19, 2024. Plans have been revised to propose a 60 square feet BVW replacement of the 20 square feet of permanently lost BVW (3:1), therefore negating the need for an individual 401 Water Quality Certificate, as well as the waiver request for the local bylaw 2:1 replacement requirement.

- A2. The following elements are missing from the provided plans:
- a. The north arrow reference should be provided on the plans per Bylaw Regulation Section 7.18.1.3.

- b. Existing and proposed vegetation (i.e., tree lines) should be provided on the plans per Bylaw Regulation Section 7.18.1.5. and 7.18.1.6
- c. A Construction Sequence and Schedule should be provided on the plans and within the NOI package per Bylaw Regulation 7.15.
- d. A Professional Land Surveyor (PLS) stamp should be provided to certify the accuracy of the existing conditions data.

TEC Response: The plans have been revised to indicate the north arrow datum reference of NAD 83. The plans have been revised to incorporate the proposed tree clearing limits/ proposed tree line. A construction sequence / schedule has been added to the plans and the NOI package. A PLS stamped existing conditions plan has been included in the resubmittal documents.

- A3. The proposed location of permanent BVW loss should be labeled on the Resource Area Impacts Plan.

TEC Response: The Resource Area Impacts Plan has been revised to show the location of the permanent BVW lost area, as well as the proposed replacement areas.

Wetland Bylaw and Regulatory Review

It is recommended that the Applicant obtain signatures from all non-municipal property owners where work will occur. It is anticipated that work on land owned by the Massachusetts Department of Conservation and Recreation (DCR) will require a Construction Access Permit from DCR.

TEC Response: The work which will occur on any non-municipal owned property will require easements for access and construction. All legal property access, entry, and construction easements and/or state permits (DCR Access Permit, Chapter 91 Waterways License, etc.) will be obtained prior to the commencement of any construction activities.

Resource Areas and Boundary Comments

- W1. BETA concurs with the delineated BVW boundary including the WFA100 Series, WFA200 Series, WFB100 Series and WFB200 Series flagging based on the presence of hydrology (saturated to surface, water-stained leaves, and drainage patterns), hydric soils, and hydrophytic vegetation including skunk cabbage (*Symplocarpus foetidus*), northern spicebush (*Lindera benzoin*), and elderberry (*Sambucus nigra*).

TEC Response: No response necessary.

- W2. BETA also concurs with the delineated Bank/Mean Annual High Water (MAHW) boundaries including the MAHW100 Series, MAHW200 Series, and MAHW300 Series flagging based on bankfull indicators including an observable break in slope and change in vegetative community.

TEC Response: No response necessary.

- W3. The MAHW/Bank boundaries associated with the MAHW400 Series flagging appears to be located upgradient of the actual location of Bank/MAHW. While the Bylaw defines the upper boundary of Bank as the first observable break in slope or the mean annual flood level, whichever

is higher, the boundaries of both Bank and MAHW appear to follow a clear transition from a fluvial regime to a vegetated wetland located downgradient of the MAHW400 Series flagging. While water-stained leaves are present upgradient of the first observable break in slope, no other MAHW indicators (drift patterns, scour, etc.) were observed in this area. BETA recommends that flagging that this location be revised, as portions of proposed LUW impacts would actually be considered BVW impacts.

TEC Response: H.W. Moore Associates, who conducted the initial resource area delineation in September of 2022, returned to the site the week of 4/8/24 to revise the delineation based upon the comment provided. An additional flag, MAHW400A, was placed in between MAHW400 and MAHW401 to identify the limit of bank versus BVW. The plans and WPA Form 3 have been revised accordingly to identify the proposed resource area impacts more accurately.

W4. The boundary of BLSF is depicted via overlay due to there being no published base flood elevation associated with the Zone A Flood Hazard, and the Applicant did not establish a 100-year flood elevation. It is recommended that the Commission include a finding in the Order of Conditions stating that the BLSF boundary is not approved under this filing.

TEC Response: The BLSF boundary as shown on the resource area impact plan is based upon the 100-year elevated floodplain as determined by Bay Colony Group, Inc. via their Hydraulic and Hydrologic Study prepared for TEC dated December 2022 (elevation 263 upstream, elevation 260.3 downstream).

W5. The Applicant states that the proposed 16-foot-wide culvert will provide a span of 1.23 times bankfull width; however, the StreamStats report indicates that the bankfull width is 16 feet. The Applicant should clarify if field measurements were taken to supersede the StreamStats bankfull width, or if the proposed span will not exceed bankfull width.

TEC Response: The StreamStats analysis of the stream was not used to determine the bankfull width for the stream crossing. Field measurements and survey cross sections of mean annual high water (13 sections conducted as required per the MassDOT LRFD Bridge Design Manual) were used to determine the average bankfull width of Miscoe Brook at the stream crossing. Bankfull width was determined to be approximately 13' wide.

Construction Comments

W6. Material stockpile and laydown areas should be labeled on the Project plans.

TEC Response: Plans have been revised to show stockpile and laydown areas.

W7. Proposed erosion controls on the Plan Set include the use of compost filter tubes, silt boom fence and riprap. These controls are appropriate for this Project, however within the Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan the use of silt fence is proposed. BETA defers to the Commission on whether they will permit the option of using silt fence, as the Commission traditionally requests alternative erosion controls.

TEC Response: The Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan has been revised to remove all notation of silt fencing.

W8. The Resource Area Impacts Plan references a water control plan; however, this plan was not provided with the exception of a standard construction specification. It is recommended that the Applicant provide details and narratives supporting the proposed water control system, including methods of scour protection at the downstream end of the bypass pipe, provisions for monitoring turbidity at the dewatering discharge point, and design specifications for the pumps and stilling basin. In addition, discharge points for the dewatering of groundwater are shown within Resource Areas and should be set back to the maximum extent practicable.

TEC Response: A proposed water control plan has been added to the revised plan set. The proposed plan indicates two phases of water control during construction, phase 1 which will temporarily redirect the stream through a bypass pipe/culvert for construction of the footings, installation of the culvert, and construction of the southerly wingwalls, and phase 2 which will utilize the installed culvert and restored streambed for the stream flow during the installation of the northerly wingwalls. It should be noted that the control of water plan may change as the actual proposed means and methods of water control will need to be determined and provided by the contractor and approved by the engineering consultant and the town prior to implementation.

Mitigation Comments

W9. Provide a wetland replication plan, including proposed grades, soil amendments, and species to be planted.

TEC Response: Wetland replication areas, details, and grading have been added to the resource area impact plan. Specifications for the replication have been added to the Special Provisions of the Construction Bid Documents. As the replication areas are rather small in size, only a native wetland seed mix is proposed for plantings.

W10. Provide specifications for both wetland replication and restoration to ensure that the selected contractor is aware of the requirements of this work. This should include a proposed seed mixture with anticipated native species.

TEC Response: Specifications for wetland restoration and replication have been added to the Special Provisions of the Construction Bid Documents.

W11. Based on the footprint of the existing stone culvert and the expansion of LUW resulting from the Project, it is anticipated that off-site borrow will be required for LUW restoration. The Applicant should provide the requirements for the proposed streambed material based on a qualitative assessment of the existing, natural streambed.

TEC Response: Specifications for the off-site streambed material has been added to the Special Provisions of the Construction Bid Documents. The specification was developed utilizing streambed material samples taken as part of the H&H study as required by MassDOT for scour analysis.

W12. Slope stabilization with vegetation including perennial grasses and legumes has been proposed within the Erosion and Sedimentation Control Plan. BETA recommends using a native seed mix similar to the New England Erosion Control/Restoration Mix for slope stabilization within uplands.

TEC Response: The Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan and Special Provisions of the Construction Bid Documents have been revised to incorporate native conservation seed mix for slope stabilization.

W13. Provide a procedure for the restoration of Banks within the culvert. This should include sequencing, a cross-section view, and necessary BMPs including coir logs and erosion control netting. The proposed culvert is three (3) feet high and will be inaccessible following installation.

TEC Response: The specifications include a stream bank restoration procedure. The resource area impact plan has been revised to incorporate a culvert section and construction sequencing for the streambed restoration within the culvert.

WPA Performance Standards Comments

As a Limited Project, the work is only subject to the Performance Standards to the maximum extent practicable; however, the Limited Project provision cited by the Applicant is only applicable towards projects involving dams and reservoirs. It is recommended that the WPA Form 3 be revised to reference the Limited Project provision at 310 CMR 10.53(8).

TEC Response: The WPA Form 3 has been revised to reference the correct Limited Project Provision.

W14. The Applicant states that the 30 feet of permanent fill within BVW does not require replication due to its size being less than 500 square feet. However, this fill does not meet all aspects of this provision per 310 CMR 10.55(4)(c)4. Wetland replication that complies with the General Performance Standards stated in 310 CMR 10.55(4)(b)(1-7) must be provided. Due to the limited availability of right-of-way suitable for replication, the Applicant could consider siting the replication area within the Town-owned parcel to the southwest.

TEC Response: The plans have been revised to propose 3:1 replacement of permanently lost BVW adjacent to existing BVW, proposed stream bank, and proposed culvert wingwalls, therefore negating the need for an individual 401 Water Quality Certificate. Siting the replication area on the town-owned parcel to the southwest (6 Ruby Way) would require access from Ruby Way, likely more extensive vegetation removal to access and construct the relatively small replication area, and the replication area being located further from the lost area than what is now proposed, therefore this area was deemed less preferable.

Bylaw Regulatory Comments

W15. The Applicant has requested a waiver for work occurring within the 25' No Disturb Zone and the 50' No Structure Zone. BETA defers to the Commission on the issuance of this waiver.

TEC Response: No response necessary.

W16. All vegetation that is proposed to be removed that has a diameter greater than one (1)-inch at the base should be shown on the plans 7.18.1.5. Based on recent applications of this requirements, the Commission has allowed Applicants to only depict vegetation to be removed that is greater than three (3) inches in diameter. BETA defers to the Commission on this requirement.

TEC Response: The clearing limit has been added to the plan set. The construction plans indicate locations of trees with diameter of 2" and greater to be removed. Based upon the existing conditions survey, it appears that (2) 2" deciduous, (1) 4" deciduous, (1) 6" deciduous, (1) 8" deciduous, and (1) 10" dead deciduous are proposed to be removed. The applicant would request a waiver to allow for the depiction of vegetation with diameter over 2" be shown rather than 1".

W17. The requirement for wetland replication noted in Comment W12 must be designed to meet the 2:1 ratio of the Bylaw unless a waiver for this requirement is sought. The Applicant should also provide all other wetland replication plan requirements set forth by the Bylaw.

TEC Response: The plans have been revised to propose 3:1 replacement of permanently lost BVW therefore negating the need for a waiver request.

Stormwater Management Comments

BETA recommends that the Applicant revise the stormwater checklist and narrative to properly identify the presence of a Critical Area (Coldwater Fishery) at the Site. Individuals working on the construction of the Project should be aware of the presence of this resource, as sedimentation of the water column from construction-related discharges can have detrimental impacts on a stream's capacity to support fisheries.

TEC Response: The Stormwater Management Report and Stormwater Checklist have been revised to indicate the presence of the cold-water fishery Critical Area.

Please do not hesitate to contact me directly if you have any questions concerning our peer review at 774-402-0229. Thank you for your consideration.

Sincerely,
TEC, Inc.
"The *Engineering Corporation*"



Peter C. Engle, PE
Worcester Regional Project Manager