

AUGUST 7, 2020

Town of Sudbury
Conservation Commission
275 Old Lancaster road
Sudbury, MA 01776

Attn.: Lori Capone, Conservation Administrator

Re: **Sudbury-Hudson Transmission Reliability and Mass Central Rail Trail Project
Conservation Commission Review Update**

Dear Ms. Capone:

BETA Group, Inc. has reviewed supplemental/revised documentation relating to floodplain and resource area impacts for the project known as **Sudbury-Hudson Transmission Reliability and Mass Central Rail Trail Project**. This letter is provided to outline BETA's findings, comments, and recommendations. Note that review comments pertain only to the portion of the project within the Town of Sudbury and does not include review of revised stormwater management materials, bridge construction comments, or comments related to the Project's engineering.

BASIS OF REVIEW

The following documents were the supplemental information received by BETA and will form the basis of the review:

- **BETA Peer Review Comment Letter – Applicants' Response to Comments Letter**, dated June 25, 2020 and prepared by VHB of Watertown, MA.
- **April 13, 2020 Public Hearing - Applicants' Response to Comments Letter**, dated June 25, 2020 and prepared by VHB of Watertown, MA.
- **Stormwater Pollution Prevention Plan (SWPPP) Manual - MassCentral Rail Trail – Wayside, Sudbury, Marlborough, Stow, Hudson**, May 2020, prepared by VHB of Watertown, MA.
- **Stormwater Pollution Prevention Plan (SWPPP) Manual – Sudbury-Hudson Transmission Reliability Project, Sudbury, Marlborough, Stow, Hudson**, May 2020, prepared by VHB of Watertown, MA.
- **Correspondence between Caleb Slater and VHB**, May 9 through May 29, 2018
- **Draft Eastern Box Turtle Protection Plan**, not dated, preparer not specified.
- **Draft Corridor Management Plan for Massachusetts Central Rail Trail and Sudbury-Hudson Transmission Reliability Project** dated March 13, 2020, preparer not specified.
- **Environmental Notification Form (ENF), Sudbury-Hudson Transmission Reliability Project**, (comment letter), dated July 7, 2017, prepared by MassDEP CERO and NERO.
- **MassCentral Rail Trail (MCRT) Stormwater Management System Operation and Maintenance Plan (O&M) and Long Term Pollution Prevention Plan (LTPPP)**, dated June 2020, preparer not specified.
- Site Plan (180 sheets) entitled **Sudbury-Hudson Transmission Reliability Project – Sudbury Notice of Intent Plans** dated March 2020, revised June 24, 2020 by VHB, Watertown, MA.
- Site Plan (41 sheets) entitled **Commonwealth of Massachusetts Department of Conservation and Recreation Division of Planning and Engineering Mass Central Rail Trail in the Towns of Hudson, Stow, Marlborough & Sudbury Massachusetts Middlesex County** dated March 2020 by VHB, Watertown, MA. (Note, plans were revised but no revision date was included on the plans)
- **Time of Year Restrictions – Sudbury-Hudson Transmission Reliability Project and Mass Central Rail Trail Project**, dated June 24, 2020 by VHB, Watertown, MA.

- **Summary of Soil and Groundwater Analytical Results and Subsurface Media Management – Sudbury-Hudson Transmission Reliability Project and Mass Central Rail Trail Project**, dated June 12, 2020 by VHB, Watertown, MA.

Review by BETA Inc. will include the above items along with the following, as applicable:

- **Stormwater Management Bylaw Regulations**, Town of Sudbury, Revised January 23, 2013.
- **Massachusetts Stormwater Handbook** effective January 2, 2008 by MassDEP
- **Sudbury Wetlands Administration Bylaw Regulations** updated through September 25, 2017.
- **Sudbury Wetlands Administration Bylaw – Article XXII** updated through February 17, 2016
- **Massachusetts Wetlands Protection Regulations 310 CMR 10.00** effective October 24, 2014
- Applicable federal and state regulations

COMPILED REVIEW LETTER KEY

BETA reviewed the March 2020 submission and provided comments in letters to the Commission dated May 11, 2020 (original comments below in *italics*). VHB provided responses to these comments (quoted in **bold text**) with BETA's response following in **bold text**. Additional comments, as a result of the hearing and peer review process, are included in **bold italics**.

REVISIONS SUMMARY

Since the initial project review no substantial revisions have been made to the design. The following minor revisions have been incorporated:

- A seed mix that includes four species of native woody shrubs has been added to the planting schedule on Sheet 131. This seed mix will be spread along the graded embankments for stabilization.
- The MCRT plans have been revised to include only true native species in the plant list.
- The dewatering detail was revised to call for straw bales (rather than hay bales).
- The reference to the use of fertilizers in the erosion control blanket detail on the plan set was removed.
- Additional contour labels were added to the transmission line plans.

REVIEW SUMMARY

Since the Commission has not been provided sufficient information to describe the site, the work or the effects of the work on the interests identified in the Massachusetts Wetlands Protection Act, its Regulations and the Sudbury Wetlands Protection Bylaw, the Applicant has not overcome the burden of proof that the Project meets all General Performance Standards for several state and local resource areas. They also have not overcome the burden of proof that certain Project activities can be reviewed under the Limited Project provision. For these statutory reasons, the Commission should not issue an Order of Conditions approving the Project at this time.

GENERAL

G1. *The submitted plans and calculations do not easily provide for confirmation of compliance.*

- Provide additional contour labels to construction plans to better understand topography.*

VHB: Additional contour labels have been added to the construction plans and are included in the plans that are an attachment to this supplemental submission.

- b. *Identify existing/proposed cover types on watershed plans.*

VHB: The stormwater report figures will be updated to include existing/proposed cover types.

- c. *Provide station markers on Drain Area plans to clarify limit of watersheds compared to proposed improvements.*

VHB: The stormwater report figures will be updated to include station markers for clarity.

- d. *Include Tc paths on watershed plans.*

VHB: The stormwater report figures will be updated to include Tc paths.

- e. *Use consistent units (i.e. square foot measurements are included in the existing condition model while acres are used in the proposed condition)*

VHB: The existing and proposed condition models will be updated to use acres.

- f. *Use consistent nomenclature for BMPs; plans indicate “swales” and “area of increased infiltration” where stormwater reports refer to water quality swales and infiltration basins.*

VHB: The stormwater report will be updated to provide nomenclature that is consistent with the plans (i.e., swales and area of increased infiltration). Areas of increased infiltration characteristics most closely match an infiltration basin Best Management Practice (BMP) because they detain, treat, and infiltrate stormwater.

- g. *Show and label all BMP swales and area of increased infiltration on cross sections.*

VHB: The BMP swales and areas of increased infiltration will be labelled on the cross sections.

BETA2: These comments (G1a through G1g) will be addressed during the review of the revised and supplemental stormwater materials, which have not yet been submitted.

- G2. *Provide plans for earthwork operation in regard to possible soil contamination issues. Railroads are known to commonly contain contaminated media in the form of both track components (rails, ties) and the underlying soil. BETA notes that rail and tie removal is proposed in the narrative, but there are no measures to inspect the subsoils.*

VHB: The subsurface investigation results are being provided in a memorandum that is being submitted to the Town of Sudbury as an attachment to this supplemental submission. In summary, the subsurface investigation conducted by the Applicants confirmed that the soils along the rail way contain certain constituents commonly found along railroad rights-of-way (“ROW”). Considering the low solubility of these constituents and the long period of time they have been present in the project work zone, the excavation and movement of these soils during the Project work will not increase their mobility or present an increase in risk to adjacent surficial soil or groundwater. Also, the excavation and removal of excess soils for off-site transportation to a disposal facility will result in a reduction of the overall volume of these constituents along the ROW.

Following the removal of the rails and ties, no additional testing will be conducted because the construction platform will be covered with either pavement or 12 inches of clean fill. Where the duct bank will be installed, the native soil will be below the duct bank, which will be covered with fluidized thermal backfill, and a final 4 inches of loam. The rail trail shoulders will have 8 inches of

gravel and 4 inches of loam and the rail trail itself will be underlain with 8 inches of gravel and four inches of pavement. This will eliminate potential human and environmental exposure to the existing soils remaining in the Project Site. In each case where soil is graded or excavated, the BMPs in MassDEP's Rail Trail guidance will be followed to ensure that potential exposure is eliminated or minimized. As outlined in Section 5.3 of the NOI, the Applicants will employ a highly qualified and independent Environmental Monitor ("EM") that will frequently visually inspect soil conditions encountered during Project excavations. If conditions are encountered that suggest soil may require additional evaluation or special handling based on visual, olfactory, or field screening results, excavation activities in that area will immediately be stopped and Eversource and the Licensed Site Professional ("LSP") will be contacted to evaluate the observations and recommend requirements for proper handling.

Prior to the start of construction, a Soil and Groundwater Management Plan (SGMP) will be prepared in conjunction with the selected contractor. The SGMP will utilize the soil and groundwater data collected to date within the Project limits, permit restrictions, and resource boundaries to develop means and methods to manage soils and groundwater encountered during project construction activities including soil excavation, groundwater dewatering, and railroad tie and track removal.

BETA2: The memorandum lacks sufficient information to determine the vertical and horizontal extent of contamination at the Site, and is not sufficient to describe the work or the effect of the work on the interests identified in the M.G.L. c 131 section 40 and the Bylaw. Provide soil boring logs, groundwater monitoring data, and analytical reports.

As discussed during the July 8, 2020 public hearing, earthwork will occur at several locations of the ROW at the same time. Include a Special Condition requiring a qualified EM be present onsite during all impacted soils management activities.

- G3. *Evaluate current condition and provide report and plan to restore, if necessary, the function on all culverts in the project area. Field visit by BETA identified that several culverts were in poor condition, blocked, buried or needed tree removal.*

VHB: Section 3.1.9.1 of the NOI discusses culverts and drainpipes. VHB structural engineers evaluated all of the culverts within the Project Site in 2017 and 2018. As identified in Table 4 of the NOI, drainage pipe #127A will be replaced and drainage pipe #125B will be extended. Debris will be cleared from culvert #127I and drainage pipe #126A, and vegetation that is causing damage at drainage structure #127H and culvert #126B will be cut. No rehabilitation work is proposed for the remaining culverts because Eversource engineers have determined that they will not affect the operation or maintenance of the transmission line.

BETA2: BETA's engineers inspected each culvert depicted on the NOI plans during their initial site visit. This comment, relative to the function of the culverts for stormwater conveyance, will be addressed in BETA's letter responding to the Stormwater Management materials and associated comments.

The culverts, however, also function as connections for wildlife migration that may allow species to avoid travel over the railbed / through proposed limit of work. Evaluate culverts for their wildlife migration function. The commission could consider improvements to existing culvert openness or culvert maintenance / repair as part of the mitigation plan for impacts to wildlife connectivity.

- G4. Given the Phased construction of the Project, include a Special Condition requiring the request of a Partial Certificate of Compliance (COC) at the completion of Phase 1 (Transmission Line construction) or after three years, whichever comes first.**

WETLANDS AND RESOURCE AREA IMPACT SUMMARY

The Site includes several resource areas located in and along the Project corridor. According to the NOI, there are 45 vegetated wetlands (bordering – BVW and isolated - IVW), 13 Vernal Pools, three perennial streams (as defined by the Mass. Wetlands Protection Act), five intermittent streams, Bank and Land Under Water associated with the perennial and intermittent streams, Bordering Land Subject to Flooding (BLSF), and Riverfront Area (RA) located in and along the Project corridor. In addition, the Adjacent Upland Resource Area (AURA) and Coldwater Fisheries Resources (CFR), protected under the Sudbury Wetlands Administration Bylaw are also present. With the exception of BLSF, the resource area boundaries depicted on the plans were confirmed through an Order of Resource Area Delineation dated August 27, 2018.

- C1. The ORAD affirmed the FEMA 100-year base flood elevations (BLSF boundary) only. Meaning, the BLSF boundary locations on the ORAD plan were not confirmed because:
- i. A significant amount of the Site's topography is derived from aerial LiDAR data.
 - ii. During the ANRAD process it was documented that many of the contour elevations differ significantly (by several feet) from the LiDAR contours. Therefore, fill volumes below the 100-year floodplain boundary are still not understood or accurately quantified.

VHB: The statement that the BLSF resource area boundaries depicted on the plans were not confirmed in the ORAD is incorrect. During the ANRAD process, Nover Armstrong recommended and the Commission required that the BLSF elevations be ground surveyed in the field by a Professional Land Surveyor. Eversource and VHB submitted a response to comments from Nover Armstrong regarding the use of LiDAR, which is an industry accepted standard, in a letter dated May 16, 2018. This was confirmed by Nover-Armstrong at the August 16, 2018, public hearing and the ORAD was issued, which included approving the BLSF boundary.

BETA2: After a review of the ANRAD issued by the Conservation Commission, it appears that the boundary of BLSF as shown on the plan was approved. The ANRAD review process found significant differences in the LIDAR contour elevations and on-the-ground survey elevations in targeted locations. Therefore, it is important that all BLSF fill be quantified and compensated for on an incremental basis for this Project. Further, the Commission could require greater than a 1:1 incremental BLSF compensation per their Bylaw Performance Standards¹.

Portions of the Project qualify as a Limited Project under 310 CMR 10.53(6 -bike path in Riverfront Area only) and (8 – stream crossing replacement). The Project may not fully meet the limited project provisions at 310 CMR 10.53(3)(d)² due to the permanent alteration of topography and vegetation. Although MassDEP Central

¹ Bylaw Regulations – Section 7.8.3: The area of replication must be at least twice as large as the area of the original resource that will be destroyed.

² 310 CMR 10.53(3)(d): The construction, reconstruction, operation and maintenance of underground and overhead public utilities, such as electrical distribution or transmission lines... may be permitted, in accordance with the following general condition and any additional conditions deemed necessary by the issuing authority:

1. The issuing authority may require a reasonable alternative route with fewer adverse effects for a local distribution or connecting line not reviewed by the Energy Facilities Siting Council;
2. Best available measures shall be used to minimized adverse effects during construction;

Regional Office stated in their 12/8/2017 comment letter that the Project “qualifies as a limited project”, no specific analysis on the Project’s compliance with conditions in the Wetlands Protection Regulations was provided. The applicability and use of this provision are subject to the Conservation Commission discretion under 310 CMR 10.53(3)³.

The project proposes permanent and/or temporary impacts to Inland Bank, Bordering and Isolated Vegetated Wetlands, Land Under Water, Bordering Land Subject to Flooding, and Riverfront Area. The Applicant has included only the proposed impervious surfaces related to the bikepath as the “permanent” impacts associated with the Project and has considered the impacts associated with installation of the duct bank, permanent contour changes, and habitat conversion as “temporary” impacts even though these areas will be maintained in perpetuity. The design includes wetland replication in one location, LUW and Bank restoration, and partial BLSF and Riverfront Area restoration.

The combined NOI filing for the bikepath and transmission line is inconsistent with previous permits and applications, including with MEPA and under MESA. In addition, according to the project construction sequence, restoration of the corridor will not be conducted until after the bikepath is complete to avoid impacts to the installed plants, however, the duration of time from transmission line construction to bikepath construction is unknown due to the uncertainty of the funding for the MCRT construction. The construction schedule for the transmission line is also unknown. Restoration of the corridor after Phase 1 clearing and grading activities could be a significant amount of time if the Project under the current proposal.

*The western portion of the Project is located within Natural Heritage and Endangered Species Program (NHESP) mapped habitat for the Eastern Box-turtle (*Terrapene carolina*), Eastern Whip-poor-will (*Caprimulgus vociferous*), Gerhard’s Underwing Moth (*Catocala Herodias gerhardi*), and Coastal Swamp Metarranthis Moth (*Metarranthis pilosaria*). This mapped habitat area extends from just east of Bridge 128 to the Sudbury/Hudson town line. The Project has been reviewed under the Massachusetts Endangered Act and must be conditioned to avoid a prohibited “Take” of rare species.*

Time of Year (TOY) restrictions are required in several locations throughout the Project corridor to avoid adverse effects to wildlife habitat. These restrictions will limit construction windows, increase the construction duration, and impact wildlife migration due to the presence of erosion controls along the corridor. The NOI has not addressed how the TOY restrictions will impact construction duration, and how an increase in construction duration will impact the species along the corridor.

As proposed, the Project does not fully meet the Wetland Protection Acts performance standards for BVW, BLSF, and RA and additional information is required to determine whether the Project meets the standards for Bank and LUW. First, this letter provides an overview of construction mitigation methods proposed to be used with recommendations for special conditions to avoid additional impacts to protected resource areas, then the Project is evaluated based on its compliance with the Massachusetts Wetlands Protection Act and the Sudbury Wetlands Administration Bylaw.

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3. *The surface vegetation and contours of the area shall be substantially restored; and*
 4. *All sewer lines shall be constructed to minimize inflow and leakage*

³ 310 CMR 10.53(3): Notwithstanding the provisions of 310 CMR 10.54 through 10.58 and 10.60, the Issuing Authority **may** issue an Order of Conditions and impose such conditions as will contribute to the interests identified in M.G.L. c. 131, § 40 permitting the following limited projects (although no such project may be permitted which will have any adverse effect on specified habitat sites of Rare Species, as identified by procedures established under 310 CMR 10.59). In determining whether to exercise its discretion to approve the limited projects listed in 310 CMR 10.53(3), the Issuing Authority shall consider the following factors: the magnitude of the alteration and the significance of the project site to the interests identified in M.G.L. c. 131, § 40, the availability of reasonable alternatives to the proposed activity, the extent to which adverse impacts are minimized, and the extent to which mitigation measures, including replication or restoration, are provided to contribute to the protection of the interests identified in M.G.L. c. 131, § 40.

The comments provided below assume the following:

1. *The Project may not fully comply with the conditions to qualify for the limited project provision under 310 CMR 10.53(3)(d), therefore the Commission may require that the Project fully comply with the performance standards.*

VHB: The Project fully complies with the criteria for limited projects. As proposed, the surface contours and vegetation in the Project Site will be substantially restored. With respect to contours, the Project maximizes the use of the previously developed areas associated with the existing raised rail bed and has been designed to follow existing topography and to minimize the grading necessary to facilitate the installation of both project components. The grading proposed for the Project is similar to the kind of activity that is necessary for any linear utility or rail trail project that is subject to the limited project regulations.

The same is true for revegetation. The Project includes restoration of native vegetation in all temporarily disturbed areas outside of the proposed 10-foot-wide paved surface associated with the MCRT. The revegetation of the Project corridor outside of the proposed paved surface includes a variety of strategies, dependent upon proximity to the paved MCRT and the underground transmission line, proximity to perennial waterbodies, and proximity to Estimated/Priority Habitat for state-listed species.

Since submitting the NOI, the seed mix in the planting schedule on Sheet 131 of the Eversource NOI plans has been revised to include woody shrubs. The revised planting schedule is included within the revised plan set that is included as an attachment to this supplemental submission. The combined herbaceous/woody seed mix will be used in all areas of temporary disturbance except for the bike path shoulders. The bike path shoulders will be restored with the herbaceous seed mix shown under Schedule A on Sheet 131 of the Eversource NOI plans.

The entire ROW is previously developed and portions of the RFA are degraded. The restoration plan proposed near Bridge 128 includes the planting of 85 individual tree specimens that are 3 to 6 feet in height, and 60 woody shrub specimens that are 3 to 4 feet in height, combined with the application of a seed mix and aquatic plant plugs. The restoration plan proposed near Bridge 127 includes the planting of 78 individual tree specimens that are 3 to 6 feet in height and 135 woody shrub specimens that are 3 to 4 feet in height, combined with the application of a seed mix and aquatic plant plugs. In addition, the approximately 4,000 linear feet of the Project alignment within Estimated/Priority Habitat from the Sudbury/Hudson town line to approximately STA 401+40 will be restored with a combination of low-growing shrub species and an herbaceous and woody seed mix. Finally, as previously mentioned, the remaining temporarily disturbed areas along the Project will be restored by planting a seed mix containing a variety of native herbaceous and woody species. All of these vegetation restoration treatments will provide wildlife habitat and once fully established they will substantially restore or improve existing conditions.

In addition to this proposed re-establishment of native vegetation, the Project design includes the creation of snags and brush piles along the alignment to supplement wildlife habitat value within these areas. Lastly, the removal of the railroad rails and ties will remove an existing barrier for wildlife movement along the entire length of the Project.

BETA2: The applicability of Limited Project provisions for a given project may only be determined by the issuing authority, as cited above. There is no requirement for Conservation Commissions to issue an OOC for a Project under these provisions even if it fully meets the Limited Project Provisions

and conditions. The Commission should consider whether the use of an herbaceous and shrub seed mix to restore the side slopes is adequate to restore resource area functions and values, and if the Project will “substantially restore” the vegetation, as required by the Limited Project provision. The seed mix proposed to be used on the may not be successful due to the planting medium, slope topography, and weather conditions. The graded slopes will also provide conditions conducive to invasive species establishment. The Applicant should provide the Commission with an anticipated timeframe for successful establishment of woody vegetation that would produce the functions of that lost.

Additionally, the shoulders (4-feet) and duct bank (5-feet where not under the trail) will be maintained annually. These 9 feet-wide areas result in the conversion of approximately 4.69 acres of forested area to a different vegetative habitat, namely maintained grassy vegetation. These impacts are not temporary and do not meet the conditions of the Limited Project provision.

2. *The resource areas, including BLSF and RA, present within the Project Corridor / Railroad ROW provide important wildlife habitat, including upland habitat for Vernal Pool species, cover for reptiles, nesting habitat for birds, and food and cover for mammals, among other habitat.*

VHB: Provided no response.

3. *Impacts to Vernal Pools, and the surrounding “Vernal Pool Envelope⁴” and “critical terrestrial habitat (CTH)⁵” have not been adequately evaluated in the Wildlife Habitat Evaluation. The Project’s greater than three-year construction period, clearing within 5 feet of several pools, grading within 5 feet of these pools erosion control installation, security lighting, and access through these areas to get to other work zones have not been addressed adequately to confirm the Project will not adversely impact the Vernal Pools along the Project corridor.*

VHB: Provided no response.

4. *The Project must fully comply with the MA Stormwater Regulations and Standards regardless of the application of the Bikepath Redevelopment provision.*

VHB: As stipulated in the Wetlands Protection Act regulations, 310 CMR 10.05(6)(m)6, the Stormwater Management Standards apply to the maximum extent practicable for bike paths. The reviewer’s statement that the Project must fully comply with the MA Stormwater Regulations is inconsistent with the regulations.

As required by 310 CMR 10.05(6)(o), all reasonable efforts were made to meet Standards 2, 3, 4, 5, and 6., a complete evaluation was made of possible stormwater management measures including environmentally sensitive site design and low impact development techniques that minimize land disturbance and impervious surfaces, structural stormwater best management practices, pollution prevention, erosion and sedimentation control and proper operation and maintenance of stormwater best management practices; and the highest practicable level of stormwater management is being implemented.

⁴ The area within 0 – 100 feet of the Vernal Pool depression’s edge – Vernal Pool Best Management Practices (BMPs), Jan 2015, US Army Corps of Engineers, New England District.

<https://www.nae.usace.army.mil/Portals/74/docs/regulatory/VernalPools/VPBMPsJan2015.pdf>

⁵ The area within 100 – 750 feet of the Vernal Pool depression’s edge. – Vernal Pool Best Management Practices (BMPs), Jan 2015, US Army Corps of Engineers, New England District.

The stormwater management system was designed for the final condition of the Project, which is a 10-foot-wide paved bike path and incorporates areas of increased infiltration and swales to promote recharge. Stormwater from the bike path discharging to critical areas is conveyed to areas of increased infiltration to the extent possible. The areas of increased infiltration characteristics most closely match an infiltration basin BMP because they detain, treat, and infiltrate stormwater. Areas of increased infiltration within WPA jurisdiction were incorporated into the stormwater design from stations 405+00 to 407+50, 515+00 to 516+10, 576+20 to 576+65, 579+25 to 579+90, 585+40 to 588+30, 730+00 to 732+00, and 735+00 to 738+30. In addition to areas of increased infiltration, swales were placed within WPA jurisdiction from stations 395+80 to 397+00, 515+00 to 516+00, and 576+20 to 576+75. In practice, these swales will provide stormwater detention, infiltration, and treatment.

In other areas, stormwater from the bike path will discharge to the abutting vegetation and forested area where stormwater will naturally infiltrate under the majority of storm events. In stormwater management planning, this approach is referred to as an “impervious area disconnection,” which is the redirection of stormwater from impervious cover (i.e., paved bike path) to an area of pervious cover (i.e., vegetated and forested area) to provide filtering and infiltration.

The stormwater management design selected for the Project allowed the Project to provide stormwater treatment and recharge throughout the Project area while reducing disturbance to existing vegetation, limiting impacts to buffer zones and resource areas, providing a manageable system for the long-term operator to maintain, and targeting additional treatment at critical areas. The stormwater management design also considered the key fact that stormwater runoff from bike paths is a very limited source of pollutants such as total suspended solids and phosphorus. The proposed measures also exceed what is typically incorporated into rail trail projects.

BETA2: This comment will be addressed during the review of the revised and supplemental stormwater materials.

CONSTRUCTION IMPACTS / MITIGATION

Phase 1 of the Project includes the following construction activities in order of construction sequencing described in the NOI:

- *Clearing vegetation to ground level within the ROW and limb removal of vegetation that overhangs the ROW (no stumping)*
- *Installation of erosion and sedimentation controls*
- *Installation of new equipment at Sudbury Substation*
- *Removal of existing rail and ties*
- *Grading to create 22-foot wide construction platform*
- *Installation of stormwater management features*
- *Construct wetland replication area*
- *Construct bridges and other crossings*
- *Installation of manholes and duct bank*
- *Final grading of the gravel road*
- *Cable pulling*
- *Stabilizing site using loam and seed*

Once Phase 1 is complete, there may be an extended period of time before Phase 2 construction begins and the Right of Way planting/restoration is not proposed until the completion of Phase 2.

Activities required for constructing the Project have the potential to further impact wetland resource areas if not properly managed and/or conditioned.

Vegetation Clearing: *The NOI narrative states the contractor will conduct vegetation removal within the limit of work prior to installation of the erosion controls and that no stumping will occur, however, there is no description of how the limit of work will be delineated for the contractor. In addition, the vegetation to be removed will be chipped for removal from the Site. The NOI does not address the clearing operation landings or chipping locations, the height required for limb removal, or how trees with roots outside of the limit of work that have grown above the railroad will be addressed. Note that vegetation clearing will be subject to all Time of Year restrictions.*

W1. *Include a special condition requiring the limit of work/erosion controls be staked in the field by survey. The staked boundary should be certified by a Mass. Registered Professional Land Surveyor and reviewed by the Conservation Commission and/or their Agent prior to beginning any clearing.*

VHB: *As stated within Section 3.1.1 of the NOI, the proposed limits of work will be staked in the field using survey grade equipment. The Applicants can agree to a recommended special condition stating that the Commission or its Agent will review the staked limits prior to the beginning of any vegetation removal.*

BETA2: *BETA recommends a Special Condition that the survey grade equipment produce sub-foot accuracy.*

W2. *Include a special condition requiring appropriate vegetation chipping be conducted greater than 50 feet from any resource area subject to protection under the state and local Bylaw.*

VHB: *Any vegetation that will be chipped onsite will be chipped directly into a truck and will be removed from the ROW. Due to this BMP, this special condition is not required.*

BETA2: *Chipping onsite directly into a truck will be adequate to protect the resource areas from construction related impacts. Revise the NOI narrative to include this description.*

Confirm ROW conditions are currently adequate to support the equipment needed for this work.

W3. *Specify the height of limb removal required for construction.*

VHB: *Trees within the limit of grading will be removed to provide access along the construction platform. With the exception of a few select locations, such removal is expected to provide sufficient vertical clearance for construction access with no need to remove limbs from trees that are located outside of, but overhang, the limit of work. At locations where a crane is needed to install manholes and perform bridge work, vertical clearance of up to sixty feet may be required and some additional trimming of overhanging limbs may be necessary in these locations.*

BETA2: *The NOI and supplemental information is not sufficient to describe the work or the effect of the work on the interests identified in the M.G.L. c 131 section 40 and the Bylaw.*

Specify the areas where clearing up to 60 feet will be required. A variety of equipment is required along the length of the project corridor to prepare the site and to install the UG utility including excavators and grading equipment, bucket trucks and wood chip storage trucks/vans, equipment and large bridge structure component transport trucks, crane body, etc. If there are other areas where tree limb removal is proposed to differing heights, then these should be shown on the plans

to sufficiently describe the work and the effects of the work on the resource areas.

W4. Describe how trees that have grown over the railroad will be addressed during clearing.

VHB: Trees within the limit of grading will be removed. Trees outside the limit of grading will remain, including those whose canopy extends over the construction platform provided they do not interfere with construction equipment operation (see response to W3 above).

BETA2: Response is not sufficient to describe the work or the effect of the work on the interests identified in the M.G.L. c 131 section 40 and the Bylaw. BETA observed trees with roots outside the limit of work and trunks that have grown above the railbed, like the one in the photograph to the right. The applicant has not sufficiently described the work and the effects of the work on the resource areas.



Clearing and removal of invasive vegetation within the Project corridor during the vegetation removal process was not addressed in the Notice of Intent. Proper management of this vegetation is required to avoid spreading this vegetation within the Project corridor. Chipping most woody invasive vegetation is generally ok if the standing material is void of hanging fruit/seed. Chipping of Asiatic bittersweet (*Celastrus orbiculatus*) should only be conducted once the material is dry because this species can reproduce through plant fragments.

W5. Provide a protocol for invasive species vegetation management during the initial vegetation removal stage of planting. Details should be provided on how the contractor will avoid seed dispersion during vegetation removal.

VHB: During the construction phase of the Project, invasive species control includes the following measures:

- Contractor is required to clean all equipment and timber mats prior to mobilizing to the Project Site. Equipment and timber mats will not be allowed to enter the Project Site unless they are free of plant matter and soil;
- Chipping or shredding of plants, including invasive species, will be directed into a truck or container for offsite disposal immediately after it is cut; and
- Only certified weed free clean fill/loam will be used.

BETA2: The response is not sufficient to describe the work or the effect of the work on the interests identified in the M.G.L. c 131 section 40 and the Bylaw. Provide a location and plant specific Invasive Species Management Plan that details the control of invasive seed dispersal during the clearing phase of the Project.

Sedimentation and Erosion Control: According to the NOI, a SWPPP will be prepared and implemented during construction. The Project proposes the use of four types of erosion controls: a combination of silt fence/compost filter tubes, syncopated silt fence, standard silt fence, and turbidity curtains.

W6. Include a special condition requiring the Conservation Commission's review and approval of the SWPPP prior to construction. BETA recommends that any use of permanent infiltration BMPs for temporary construction-related stormwater management be specifically addressed in the SWPPP and protocols

for removal of fine silt and sediment from these BMPs be conducted after completion of construction.

VHB: The Applicants can agree to this recommended special condition requiring the Commission's review of the SWPPP prior to construction. Permanent infiltration BMPs shall not be used as temporary construction sedimentation basins without prior approval of the project engineer. See attached draft SWPPP manual.

BETA2: The recommendation includes both the Commission's review and approval of the final SWPPPs prior to beginning construction. The draft SWPPPs are lacking information required by the NPDES Construction General Permit Conditions.

Given the Site constraints (narrow width and length of corridor), the Erosion and Sediment Control Plan (required under 310 CMR 10.05(6)(k)(8)) should be provided to confirm compliance with the Stormwater Standards.

Include Special Condition requiring that the Applicant notify the Conservation Commission when changes are made to the SWPPP plans (adding BMPs, changing BMPs) prior installation of BMPs.

- W7. *Include a special condition requiring the Conservation Commission and/or its agent review the erosion control installation in the field prior to the start of work.*

VHB: The Applicants can agree to this recommended special condition.

BETA2: No further comment.

- W8. *Include a special condition requiring the Conservation Commission and/or their agent to inspect all permanent stormwater infiltration BMPs for acceptance prior to construction demobilization for any specific Project section.*

VHB: The Applicants can agree to this recommended special condition.

BETA2: No further comment.

The narrative describes maintaining the erosion controls through both the transmission line and bikepath construction phases, however, in areas of manhole installation and near the bridges, the limit of work associated with the transmission line is located downgradient of the areas required for construction of the bikepath. In addition, since the construction funding of the MCRT is uncertain, maintenance of the erosion controls through both phases could be labor-intensive, and the controls would impact wildlife migration for an extended amount of time (see Time-of-Year restriction discussion on wildlife migration impacts).

- W9. *Include a special condition requiring site stabilization and removal of all erosion controls within the Project corridor immediately upon site stabilization after work associated with the transmission line installation is complete along sections of the project corridor. Erosion controls may be removed in sections as appropriate.*

VHB: The Applicants disagree with this recommended special condition and suggest the following special condition:

The following special condition supplements General Condition #18:

Eversource shall be responsible for installing and maintaining erosion controls on the Project Site during the performance of all Phase 1 construction activities. After completion of the Phase 1 work, Eversource shall continue to maintain the erosion controls until DCR commences Phase 2, provided that Eversource may remove erosion controls from areas restored and revegetated as part of the

Phase I work if the Commission's representative has inspected those areas and confirmed they are stabilized sufficiently.

DCR shall be responsible for installing and maintaining erosion controls on the Project Site during the performance of all Phase 2 construction activities, which may include utilizing erosion controls that were installed and maintained by Eversource if those erosion controls remain in proper condition and demarcate the limit of Phase 2 work. Otherwise, DCR shall install new erosion controls as required for Phase 2, including in any restored and revegetated areas where Eversource was authorized by the Commission's representative to remove erosion controls. DCR shall remove erosion controls when all Phase 2 work activities are complete, and the Commission's representative has confirmed that restored and revegetated areas are stabilized sufficiently.

BETA2: This response is not sufficient to describe the work or the effect of the work on the interests identified in the M.G.L. c 131 section 40 and the Bylaw. Although BETA agrees that the erosion controls should not be removed until Site stabilization is confirmed by the Conservation Commission (or their representative), the duration of the construction of Phase 1 and Phase 2, as well as the time-frame between these Phases, is not known at this time. It is BETA's understanding that construction funding for Phase 2 has not yet been secured.

See response to W10 related to the relocation of the erosion control barrier.

W10. *The erosion control barrier associated with the MCRT / Phase 2 should be located at the limit of that specific work. As recommended above, the erosion control barrier should be staked out and comply with W1. Above.*

VHB: See response to Comment W9.

BETA2: This response is not sufficient to describe the work or the effect of the work on the interests identified in the M.G.L. c 131 section 40 and the Bylaw. Since all grading, slope stabilization, stormwater installation, and restoration work will be completed as part of the transmission line construction, earth disturbance work required for construction of the MCRT will be minimal.

Revise the MCRT plans to show the location of the limit of work associated with the trail work only. Installation of erosion controls upgradient of the stabilized areas will protect the newly planted areas (in the process of establishment) from impacts associated with construction of the trail. This will also allow for removal of the downslope erosion controls that are barriers to wildlife migration sooner and will make erosion control maintenance easier for DCR.

***Construction Staging, Access, and grading:* The NOI narrative states the contractor will identify access and laydown areas, which are to be located outside wetland jurisdictional areas. These areas should be proposed where additional clearing is necessary beyond what is required for the transmission line construction and should be located outside areas of Natural Heritage and Rare Species Program (NHESP) mapped habitat.**

C4. *The NOI does not address how grading and other earthwork will be conducted within corridor prior to the completion of bridge construction, including any equipment turn-around locations that may be required. This information is necessary to confirm that additional work within jurisdiction is not required for Project construction.*

VHB: No equipment turnaround locations are planned. Bridges will be constructed as early as possible during Phase 1 to facilitate equipment movement. Until then, equipment will be expected to back out and/or turn around at manhole locations.

BETA2: This response is not sufficient to describe the work or the effect of the work on the interests identified in the M.G.L. c 131 section 40 and the Bylaw. It is stated that equipment/vehicle turnaround locations are not planned. The Applicant should provide a written statement that turnaround locations will not be necessary and if it is determined that turnarounds are needed, then they will submit a Request for Amended Order of Conditions if the work results in alteration of an area Subject to Jurisdiction under the M.G.L. c. 131 sec 40 and the local Bylaw outside the permitted limit of work.

Explain why permanent grading is required beyond the limit of the manholes to be installed, as it appears grades in these areas could be restored to existing conditions.

The NOI also does not address how site grading will be conducted if no stumping will occur. Grubbing within the limit of work is also not discussed in the NOI. If stumping/grubbing is necessary prior to grading the construction platform, this should be described in the construction sequence and should be conducted after installation of erosion controls.

W11. *Include a special condition requiring the Conservation Commissions approval of contractor access and laydown areas prior to construction.*

VHB: The Applicants disagree with this recommended special condition. Construction crews will access the ROW from public ways. If alternate access points are to be used, Eversource will direct the contractor to only use access points that are located in previously disturbed areas that will not require additional clearing or result in additional impacts to wetlands or rare species habitat. In addition, as stated within Section 3.0 of the NOI, all laydown areas will be located outside of jurisdictional areas. The Applicants suggest and are amenable to a special condition requiring that all laydown areas be outside of areas subject to the Commission's jurisdiction.

BETA2: BETA's recommendation stands. Since the NOI does not include the location of the contractor access points or construction laydown areas, then it is not sufficient in describing the work and the effects of the work on the resource areas, including AURA. See W27- BETA2.

W12. *Provide construction sequencing that addresses corridor access / egress throughout the construction process.*

VHB: See response to Comment W11.

BETA2: The NOI and supplemental information is not sufficient to describe the work or the effect of the work on the interests identified in the M.G.L. c 131 section 40 and the Bylaw. Since the NOI does not include a description of the Site access and egress throughout the construction process, then it is not sufficient in describing the work and the effects of the work on the resource areas including AURA.

W13. *Provide a description of when stumping and grubbing will occur during construction.*

VHB: As described in Section 3.1 of the NOI, during vegetation removal trunks will be cut as close to the ground as possible, leaving the stumps and roots in place. After installation of erosion and sediment controls, the contractor will begin removal of rails and ties and grading of the construction platform. If necessary, stumps and roots will be grubbed during this stage.

BETA2: Provide a revised construction sequence that includes stumping for adequate referencing in future permit documents and revise the description of the Proposed Phase 1 activities (section 3.1 of the NOI) to include this work. This activity should also be included in the SWPPP construction sequence.

Specify whether all root removal (not just stumping) is proposed within the limit of work.

Specify whether all stumps within the limit of grading will be removed. If not, provide a figure showing where stump removal will be allowed and where it will be prohibited to determine the effects of the work on the Site's resource areas.

Include a Special Condition requiring that all stumping and grubbing shall not adversely effect woody vegetation, or disturb soils, outside the permitted erosion control barriers.

W38. *The BMP manual attached to the NOI (Attachment H) specifies the use of either straw or hay bales in several BMP descriptions. Provide a Project-specific BMP Manual.*

Dewatering: *The NOI narrative and plans provide a description of the dewatering methods and details of dewatering systems on sheet 125 of the plan set. The dewatering details on this sheet include the use of hay-bales, which should not be used on the site to avoid transport of invasive seed to the protected areas onsite. The NOI states that efforts will be made to locate the dewatering discharge either in the construction trench or in uplands greater than 100 feet from wetlands. The NOI does not describe what happens when appropriate discharge locations are not present within the Project area. The narrative describes the potential use of overland flow, which does not include any filtration of the pumped water. The NOI states a soil and groundwater management plan will be developed that includes procedures for the management of dewatering.*

W14. *Revise plan details to replace hay bales with straw bales in the dewatering details.*

VHB: The plan details will be revised as requested to replace hay bales with straw bales.

BETA2: The dewatering details on the revised plans have been updated to specify straw bales. **ADDRESSED.**

W15. *Provide plans depicting potential dewatering areas where dewatering will likely be required.*

VHB: As discussed in Section 3.1.2 of the NOI, dewatering is based on field conditions at the time of construction.

BETA2: This response is not sufficient to describe the work or the effect of the work on the interests identified in the M.G.L. c 131 section 40 and the Bylaw. Because of the subsurface borings conducted as part of the design process, the Applicant should be able to anticipate where dewatering will be necessary and therefore, can provide sufficient detail to describe the proposed activities and discharge locations.

W16. *Remove the use of overland flow from the dewatering options, as fine silt and sediment pumped from excavation areas can impact native soils if allowed to runoff.*

VHB: Overland flow must be retained as an option given the decision to limit the work space to protect resource areas. However, it will be limited to use only where necessary and with implementation of full sedimentation/erosion controls.

BETA2: BETA recommends a Special Condition requiring that all ground water be treated prior to discharge and that all treatment procedures be approved by the Commission and/or their representative.

W17. *Include a special condition requiring the Conservation Commission's approval of dewatering discharge locations if proposed within Bylaw resource areas.*

VHB: As discussed in response to Comment W15, dewatering is based on field conditions at the time of construction and can be influenced by a variety of factors (e.g., time of year, storm events, etc.). The Applicants can agree to a special condition prohibiting dewatering into BVW, IVW, LUWW, or the inner 100-foot RFA. However, if required, dewatering will occur within upland jurisdictional areas (i.e., AURA/BVW Buffer Zone, BLSF, and outer 100-foot RFA) by implementing the proposed dewatering control measures.

BETA2: BETA's recommendation stands. Since the NOI plans do not include the locations of anticipated groundwater dewatering discharge, the NOI does not sufficiently describe the work or the effect of the work on the interests identified in the M.G.L. c 131 section 40 and the Bylaw.

W18. *Include a special condition requiring the Conservation Commission's review and approval of the soil and groundwater management plan prior to construction.*

VHB: The Applicants can agree to this recommended special condition. See response to Comment G2 for details regarding the Soil and Groundwater Management Plan.

BETA2: No further comment

Duct bank installation at Sta. 704+56 is proposed to go under the culvert in this location. No construction details for installation of the line below the culvert are provided and potential impacts associated with this work are not identified.

W19. *Provide construction details for installation of the transmission line at Sta. 704+56, including likely dewatering locations.*

VHB: Please refer to the construction detail showing "METHOD OF PIPE SUPPORT DURING CONSTRUCTION" on Sheet 127 of Eversource's NOI plans. The plans have been revised to directly reference this detail in the note for Station 704+56. As discussed in Section 3.1.2 of the NOI, dewatering is based on field conditions at the time of construction. As previously described, dewatering will not be discharged directly into any waterbodies, Bordering Vegetated Wetlands, inner 100 feet of Riverfront Area, or Isolated Vegetated Wetlands. All dewatering locations will be located within the limits of work as depicted on the plans and only within upland areas outside of the Commission's jurisdiction, Buffer Zone/AURA, BLSF, and outer 100 feet of RFA.

BETA2: The NOI is not sufficient to describe the work or the effect of the work on the interests identified in the M.G.L. c 131 section 40 and the Bylaw. The construction detail shows the stabilization method for the culvert but does not specify the approximate groundwater elevation. Given the limited work area at this location, BETA recommends the Applicant show the potential dewatering location on the plan, as it does not appear there is adequate space for the proposed activities within the limit of work.

Crane/Timber Mat Installation: *Timber mats will be installed at the two bridge construction locations to avoid fill within Hop Brook. These mats are typically re-used on multiple sites and are often covered in soil and vegetative materials after a project's completion. Construction mats brought to this site should be thoroughly cleaned to avoid introduction of additional invasive plant material and fine sediment migration into wetlands.*

The NOI also does not provide the dimensions of the construction mats to be used or the height of the mats to be stacked to create the required construction platform.

W20. Include a Special Condition requiring the timber mats used on the Project site be cleaned prior to being placed within the Project corridor. Prior to installation, mats should be inspected by the Conservation Commission or their Agent to confirm compliance with this condition.

VHB: As discussed in Section 3.1.2 of the NOI, the mats will be thoroughly cleaned and will be free of vegetation before and after use on the Project. See also response to Comment W5.

BETA2: BETA's recommendation stands. However, based on the Applicant's response, we further recommend including a Special Condition requiring the contractor be provided the certification to the Commission that the crane mats are free of invasive species prior to placement and removal off-site.

W21. Provide the construction mat dimensions and stacked height required to provide the required construction platform.

VHB: As described in Note 2 on Sheets 47 and 65, the contractor will be limited to maximum construction mat dimensions of 40 feet by 40 feet at any given time, and as noted in the conceptual crane mat sections on Sheet 125, the actual configuration of the crane mats will be determined by the contractor. Based on the maximum crane mat width of 20 feet from the centerline of construction to the outermost limit on each side, the stacked height at Bridge 128 may be up to 7 feet and the stacked height at Bridge 129 may be up to 4 feet.

BETA2: This comment will be addressed in BETA's letter responding to the Stormwater Management materials and associated comments.

Contaminated Materials: *The NOI narrative and plans do not provide any details regarding contaminated soil and water management during construction. Although a soil management plan is discussed in the NOI, it was not included for review and approval by the Commission. To avoid inadvertent releases of contaminated material to adjacent wetlands through excavation and dewatering, additional details are required.*

W22. Provide plans depicting known areas of soil and groundwater contamination along the Project corridor groundwater which would have an impact on dewatering and potentially stormwater runoff recharge.

VHB: There are no known areas of soil or groundwater contamination along the corridor in Sudbury that would have any impact on dewatering or stormwater runoff. The information about the testing that was completed is being provided to the Commission. Also see response to comment W23.

BETA2: The Applicant has not provided sufficient information to describe the site. See G2 – BETA2.

Additionally, the Commission needs to understand where impacted soil management (removal, grading, stockpiling for re-use on site) will occur. Rail trail construction typically does not require substantial soil management and therefore, the "Best Management Practices for Controlling Exposure to Soil during the Development of Rail Trails" (MassDEP) would be an applicable guidance document. However, site work associated with the installation of the UG electric is much more intrusive and will require substantial trenching and excavation activities.

W23. Provide a contaminated soil and groundwater management plan for review and approval by the Conservation Commission, including a statement that addresses dewatering of potential contaminated groundwater. This plan should include locations for temporary soil stockpiles.

VHB: See response to Comment G2. Additionally, Eversource's contractor will be responsible for

selecting and securing the specific stockpile and storage locations. Eversource will specify that these be located in previously disturbed areas that will not require additional clearing or impacts to vegetated wetlands, waterways, inner 100-foot RFA, or rare species habitat. If stockpiling/storage must take place within AURA/BVW Buffer Zone, BLSF, or outer 100-foot RFA, appropriate best management practices (e.g., additional erosion controls) will be implemented. In general, stockpiles, if present, will be covered with plastic sheets or tarps to minimize potential for dust as outlined in Section 3.13 of the Eversource BMP manual.

BETA2: The NOI and supplemental information / response is not sufficient to describe the work or the effect of the work on the interests identified in the M.G.L. c 131 section 40 and the Bylaw. Specific stockpile locations for impacted soils should be proposed and shown outside any Area Subject to Jurisdiction under the WPA or local Bylaw. Given that construction activities will be on-going for several years, it is not realistic for the Commission to monitor the locations used for stockpiling impacted soils to confirm they are outside the Commission's jurisdiction nor is it always realistic to be able to visually identify clean vs impacted soil stockpiles.

Time of Year Restrictions: *The use of Time of Year (TOY) restrictions is required to avoid a take of rare species, impacts to a Coldwater Fishery Resource, work within 450 feet of the mean annual boundary of a Vernal Pool, and within 100 feet of a Black Racer hibernaculum. The following TOY restrictions are proposed for the Project:*

- *Work below the surface water elevation of Hop Brook: from October 1 to June 31.*
- *Within areas mapped for Eastern Whip-poor-will habitat: from May 1 to July 31*
- *Work within 450 feet of a Vernal Pool: from March 1 to May 14*
- *Work within 100 feet of black racer hibernacula: from November 1 to March 31*

The proposed TOY restriction for work within 450 feet of a Vernal Pool during the migratory and breeding season is not long enough to prevent impacts to vernal pool species during early spring migration and migration out of the pools. These restrictions could be extended from February 15 to June 15. Restrictions should include prohibiting construction lighting and vehicular / equipment movement along the ROW within 450 feet of the Vernal Pool. Erosion control placement between Vernal pools and vernal pool species' upland habitat will inhibit typical migration patterns. The construction impact of erosion controls installation and duration on species migration was not evaluated in the Wildlife Habitat Evaluation.

W24. *Extend the TOY restriction for work within 450 feet of a Vernal Pool to protect the species during late winter and post-breeding season migration.*

VHB: The NOI included a Time of Year Restriction of March 1 – May 15, which is a recommended management practice from the document developed by the Massachusetts Natural Heritage and Endangered Species Program in collaboration with the Division of Water Supply Protection and Bureau of Forestry and the Department of Conservation and Recreation entitled, "Massachusetts Forestry Conservation Management Practices for MESA-Listed Mole Salamanders" (Version 2007.1, revised December 2016). In addition, this TOY restriction was included in the MESA Checklist that was submitted to Natural Heritage for their review and comment. However, the Applicants are willing to extend the Vernal Pool TOY restriction for the Project to June 1 to provide additional assurance that vernal pool species are not adversely affected by construction of the Project. Typically, vernal pool species migrate to and from vernal pool areas during the evening and night time hours, when active construction or construction vehicle traffic along the corridor will not be occurring. Therefore, the TOY restriction prohibits the contractors from conducting any clearing/grading/excavating activities within 450 feet of these vernal pools but allows construction vehicles to traverse these areas.

BETA2: BETA's recommendation stands. The Bylaw protects all vernal pool species, therefore the TOY restriction should be selected with this in mind. The document referenced in the response is specific to MESA-listed moles salamanders, while the Bylaw protects the habitat of all vernal pool species.

W25. *Include a Special Condition requiring removal and re-installation of erosion controls within the Vernal Pool critical areas to outside the TOY restrictions.*

VHB: Please see response to W9. In summary, erosion control barriers within 450 feet of vernal pools will consist of syncopated silt fence to serve as an effective erosion control barrier while allowing vernal pool species to migrate to and from the vernal pools. Syncopated silt fence is installed in a staggered configuration with a two-foot gap between lengths of 50 feet in the row of silt fence closest to the vernal pool and a second row of 20 foot sections of silt fence installed one foot in front of each of these gaps on the side of the barrier closer to the work zone. Details for the syncopated silt fence were provided in Section 1.5 of Attachment I of the NOI and on Sheet 124 of the Eversource plans. A special condition requiring removal and re-installation of erosion controls within the Vernal Pool Buffers to outside the TOY restrictions would result in additional unnecessary disturbance from the Project with the potential to impact vernal pool species.

BETA2: BETA's recommendation stands. Removal and subsequent replacement of erosion controls will not result in a significant additional disturbance or result in impacts to the vernal pools.

W26. *Include a Special Condition restricting all construction activities within 450 feet of Vernal Pools (including vehicular / equipment movement and lighting) during the TOY restriction.*

VHB: Vernal pool species will be adequately protected through the implementation of a TOY restriction, the use of syncopated silt fence, and through oversight by an environmental monitor during construction. The Project has been designed to incorporate measures recommended by MNHESP to protect vernal pool species. It should be noted that construction within the Project Site will occur during daytime hours and no lighting will be necessary. Given all of these considerations, it is our opinion that this condition is not necessary.

BETA2: BETA's recommendation stands. Given there is no description of project location access/egress or turnaround, the Commission has not been provided sufficient information to describe the work or the effect of the work on the interests identified in the M.G.L. c 131 section 40 and the Bylaw, their function or the interests they are protecting.

These TOY restrictions and recommended restrictions significantly limit the construction period for the Project corridor. The areas where the TOY restrictions are required are not shown on any plans and the location of the Black Racer hibernaculum was not found on the plans. In the western portion of the Project area, work on some segments of land may be restricted to be conducted between August 1 through October 31 (a 3-month period), depending on the locations of the Black Racer hibernacula. Within this area, the following work is proposed:

- *Clearing and grading,*
- *Duck bank installation,*
- *Rehabilitation work on Bridge 128,*
- *Installation of two (2) manholes,*
- *Stormwater swale construction, and*

- *Plantings.*

If access to the work area is only through the ROW and public roadways, access to this area requires either crossing Hop Brook at Bridge 128 or from White Pond Road in Hudson.

W27. *Provide an exhibit, to be used in contractor bid documents, showing the TOY restrictions and locations on a plan. This exhibit should also show locations of construction equipment and soil management along with access / egress to the ROW, if proposed.*

VHB: See attached figure for TOY restrictions. Access and egress to the ROW (i.e., Project Site) will occur from public roadway crossings. To the extent practical/feasible, vehicles and equipment will be stored outside of the inner Riverfront Area and Bordering Land Subject to Flooding. There may be situations where storing vehicles and equipment within these areas is necessary to minimize impacts to those areas from frequent vehicle/equipment movement (e.g., moving large cranes over long distances each day vs. remaining stationary). The requirements contained within the SWPPP and the Construction Spill Prevention and Countermeasures Plan will be followed in these instances.

Eversource's Contractor will be responsible for selecting and securing the specific stockpile and storage locations. Eversource will specify that these be located in previously disturbed areas that will not require additional clearing or impacts to wetlands, waterways, inner 100-foot RFA, or rare species habitat. If stockpiling/storage must take place within AURA/BVW Buffer Zone, BLSF, or outer 100-foot RFA, appropriate best management practices (e.g., additional erosion controls) will be implemented.

BETA2: The figures do not sufficiently describe the work or the effect of the work on the interests identified in the M.G.L. c 131 section 40 and the Bylaw. They do not show equipment storage locations, soil management areas, or any site access / egress locations from public ways. In addition, the figures do not clearly show when work is prohibited/allowed within each TOY restriction area.

The TOY restriction figures are inconsistent with the discussion in the NOI and with the MESA conditional "No Take" documents:

- From Sta. 361+50 to 363+50, the work is within both 100 feet of a Black Racer hibernaculum, but also within the Eastern Whip-poor-will protection area and Eastern Box Turtle protection area. According to the TOY restrictions, vegetation clearing and earth moving will never be permitted in this location.
- Page 65 of the NOI says "No Construction" in the TOY restriction areas for Eastern Whip-poor-will, Black Racer, Vernal Pools, and in-stream work in Hop Brook, while the figures say "Avoid" construction. Avoid implies more leniency. Revise figures to state "No construction".

W28. *Provide construction schedule showing, tentatively, how the work will be scheduled to adhere to the TOY restrictions. This schedule should include an approximate duration for each construction component.*

VHB: The actual work to be performed in each area and the dates(s) for when such work will be performed will be established once a Contractor has been engaged to perform the work; however, the Project will be constructed in a two-phased approach as described in detail in Section 3 of the NOI application. Eversource has conducted internal scheduling review to confirm that a contractor will be able to adhere to the TOY restrictions while maintaining the anticipated construction

timeframe.

BETA2: Submit the tentative construction schedule review with anticipated dates for each construction component to confirm that the work can adhere to the TOY restrictions.

Corridor Restoration and Invasive Species Management: *Plants native to the Site and present along the Project corridor are proposed to be installed to restore impacts to rare species habitat, BLSF, and Riverfront Area. According to the notes on sheet 131, no horticultural cultivars or varieties are proposed along the Project corridor, however, plantings proposed on sheets C-26, C-29, and C-31 include both a cultivar (Ilex glabra 'compacta') and a species not native to Massachusetts (Physocarpus opulifolius). The notes on sheet 131 describe planting details, stating that species substitutions can only be made through approval by the Environmental Monitor (EM) and that only some of the plant material must be inspected by the EM prior to installation (not those in Plant Schedule A).*

Plantings are proposed only at Bridge 127 (Sta. 397+70 to 401+80), Bridge 128 (Sta. 723+70 to 729+00), and within mapped priority habitat (Sta. 361+55 to 400+22). Neither the plant number nor area to be planted within priority habitat are specified. All other areas along the Project corridor will be loamed and seeded following completion of Phase 1 of the Project, then left for "successional reforestation". No description of the source of loam to be used on the Site was provided.

The applicant is also proposing loam and seed within the mapped habitat areas, however, soils in some locations within the mapped habitat area do not consist of loam and are not vegetated with species like those included in the seed mix. The restoration plan for the mapped habitat area should restore existing habitat, not introduce another habitat type.

W29. *Provide a revised planting list on the DCR plans that includes only true species native to Massachusetts.*

VHB: The shrub ink berry (*Ilex glabra* "compacta") and ninebark (*Physocarpus opulifolius*) have been replaced with alternate-leaved dogwood (*Swida alternifolia*) and American hazelnut (*Corylus americana*).

BETA2: The plant lists included on the MCRT plans have been adequately revised with appropriate species native to Middlesex County. The revised plans, however, are dated the same as the plans submitted with the original NOI filing. Provide a revision date on the MCRT plans so they can be properly cited in future decisions.

W30. *Include a Special Condition requiring the Conservation Commission approve species substitutions and require reasoning behind why the substitution is proposed.*

VHB: The Applicants can agree to this recommended special condition.

BETA2: No further comment.

W31. *Include a Special Condition requiring the Environmental Monitor inspect and approve all materials prior to being planted. Photo documentation of plant stock prior to planting should be submitted to the Conservation Commission within 10 days of planting.*

VHB: The Applicants can agree to this recommended special condition.

BETA2: No further comment.

W32. *Provide landscaping plans showing the locations and numbers of plants to be installed in rare species habitat and near the bridges. Also indicate proposed depth of loam amendments.*

VHB: The species and number of plantings within Estimated/Priority Habitat and near the bridges

is included on sheet 131 of the plans provided as Attachment B in the NOI. As stated within Section 3.1.10, Eversource's qualified environmental monitor or qualified biologist will dictate the locations of the woody plantings to the contractor in the field. All plantings will be planted in a naturalized and random configuration to provide wildlife habitat and will not be planted in a linear manner. The depth of the loam amendments varies depending on location but will be a minimum of four inches.

BETA2: The NOI and supplemental information is not sufficient to describe the work or the effect of the work on the interests identified in the M.G.L. c 131 section 40 and the Bylaw. The plant number for the species proposed within mapped NHESP habitat is not shown on Sheet 131. The minimum depth of loam amendments should be included on the Plan Set. Landscaping plans are necessary to determine the plan is suitable to restore the area to pre-construction conditions where impacts are quantified as temporary and as required by the Limited Project performance standards. The planting plans are also necessary to confirm adequate plant density and appropriateness of the species proposed for the specific habitat.

W33. *Provide a separate restoration plan for the areas in mapped habitat where loam and seed are not appropriate for restoration.*

VHB: Although the area that this comment is referring to is not a resource area within the jurisdiction of the Massachusetts Wetlands Protection Act or the Sudbury Wetlands Administration Bylaw or Wetlands Bylaw Regulations, the Applicants understand the importance of preserving the stability of this area. It is important to note that the vast majority of the sandy barren area is located on Sudbury Valley Trustees property and is outside the project work site, so it will remain in its current condition.

The joint Applicants met with SVT on Friday, June 5, 2020, to discuss proposed plantings within the Desert Natural Area. Based on that meeting, the Applicants are currently evaluating whether scrub oak and/or Baptisia tinctoria can be planted within the existing limit of work and are also researching a sandy soil spec to replace the currently proposed loam and seed.

BETA2: The NOI and supplemental information is not sufficient to describe the work or the effect of the work on the interests identified in the M.G.L. c 131 section 40 and the Bylaw. BETA's initial Comment W33 was not only referencing the sand deposits within the mapped habitat. Areas within the Commission's jurisdiction and mapped habitat west of Bridge 128 have native soil textures that are not consistent with loam. The Applicant should provide supporting documentation on whether the application of loam is appropriate for Site stabilization in throughout NHESP mapped habitat.

W34. *Include a Special Condition requiring the loam borrow brought to the site to stabilize the work area after completing Phase 1 be sourced appropriately. Use of impacted soils (from contamination or invasive seed) should be prohibited.*

VHB: Project specifications will note that loam will be required to be sourced from a location that has not been identified as the site of a release of oil or hazardous materials.

BETA2: BETA's recommendation stands. Further, we recommend that the Special Condition state that all soil amendments be certified that they are free of oil and/or hazardous materials and invasive species prior to use on the site.

Include a Special Condition requiring that any soil reuse on site shall not result in the degradation of soil or groundwater in any area.

Although the NOI and plans state in several locations that no fertilizers will be used onsite, the BMP document (pages A1-26 and A1-29) as well as the “Jute Mesh Erosion Control Fabric” detail in the plan set (Plan 130) state fertilizers will be used. Hop Brook has been assessed and is impaired for total phosphorus. Accordingly, fertilizer use should be restricted.

W35. *Include a Special Condition prohibiting the use of fertilizers within jurisdictional areas.*

VHB: As described in Section 5.2.2 of the NOI narrative, no fertilizers will be used for the seeding and planting proposed post-construction, and DCR’s maintenance of the corridor will not include use of fertilizers.

BETA2: BETA’s recommendation stands. The revised plans have removed the reference to the use of fertilizers on plan sheet 130 of the Eversource plan set. The Applicant should also provide an updated BMP manual removing references to the use of fertilizers.

The NOI states that the Site will be managed for invasive species by DCR following construction, however, there is no discussion of ongoing invasive species management along the corridor during construction. Invasive species along the Project corridor should begin immediately following stabilization of the work area. An invasive species control plan should be submitted to the Conservation Commission for review and approval. Initial invasive species management should include frequent (once per month minimum during the growing season) management.

Section 3.3.1 of the NOI states that it is “usually not feasible to attempt to control invasive plants beyond the mowed area”, however, in areas where the applicant is proposing a greater than 50-foot wide cleared area and are not proposing any plantings (all manhole areas), invasive species establishment is likely in areas where the canopy is removed. The brief description of invasive species management provided in Section 3.3.1 of the NOI includes the use of chemical control by DCR.

W36. *Provide a detailed, species-specific Invasive Species Control Plan for the corridor. Control methods should begin immediately following site stabilization and should be phased as stabilization occurs.*

VHB: Section 3.3 of the NOI discusses long-term vegetation management along the Project corridor, including the monitoring and control of invasive species. DCR retains the option to use herbicides as a last measure to control an area of a difficult invasive species that is creating a direct risk to stability of the bike path or where public welfare would be at risk. For example, Japanese knotweed (*Polygonum cuspidatum*) is a particularly difficult species to control and herbicides may be used where it would be the only effective way to control this herbaceous species in the immediate vicinity of the bike path.

BETA2: The NOI and response are not sufficient to describe the work or the effect of the work on the interests identified in the M.G.L. c 131 section 40 and the Bylaw. Invasive species control by DCR following the trail construction does not address invasive species control/eradication during construction or following stabilization of Phase 1 prior to Phase 2 construction. Provide an adequate Invasive Species Control Plan that addresses invasive species monitoring, control, and eradication throughout the construction phase and following Phase 1 construction.

In areas where invasive species are present along the limit of work (as described in VHB’s WHE), aggressive species-specific vegetation control will be required, as invasive species are better suited to disturbed areas and will out-compete the native seed mix.

W37. *Include a Special Condition prohibiting the use of chemical control methods within jurisdictional areas to protect water quality in vernal pools, wetlands, and waterways.*

VHB: The applicants can accept a recommended special condition prohibiting the use of herbicides within any vernal pools, vegetated wetlands or waterways. However, DCR reserves the right to use herbicides in Buffer Zones/AURA, Riverfront Area and Bordering Land Subject to Flooding. In accordance with the requirements of the Wetlands Protection Act, any use of herbicides within buffer zone or resource areas will require the filing of a Notice of Intent to allow the Sudbury Conservation Commission the opportunity to review the plan for herbicide use in jurisdictional areas.

BETA2: The response does not adequately address the comment. In order for the Commission to consider permitting the use of chemical control methods, a Site and Species-specific Invasive Species Control Plan should be provided that describes the methodology, controls, and timing of chemical application.

BETA's recommendation stands.

MASSACHUSETTS WETLANDS PROTECTION ACT COMPLIANCE

The following are the applicable Massachusetts Wetlands Protection Regulations Provisions and Standards to the Project, and a description of the Project's compliance with these provisions and/or standards:

Limited Project Provisions:

310 CMR 10.53(3)(d)(1-4): *"The construction, reconstruction, operation and maintenance of underground and overhead public utilities, such as electrical distribution or transmission lines... may be permitted, in accordance with the following general condition and any additional conditions deemed necessary by the issuing authority:*

- 1. The issuing authority may require a reasonable alternative route with fewer adverse effects for a local distribution or connecting line not reviewed by the Energy Facilities Siting Council;*
- 2. Best available measures shall be used to minimized adverse effects during construction;*
- 3. The surface vegetation and contours of the area shall be substantially restored; and*
- 4. All sewer lines shall be constructed to minimize inflow and leakage".*

The Commission should consider whether the surface vegetation and contours of the area will be substantially restored following construction (Condition 3). Activities related to construction of the proposed 22-foot-wide platform, including clearing and grading to tie into existing topography, are not all temporary. After construction completion, there will not be an "in-kind" replacement of the altered areas and a 19-foot wide corridor will be managed and not allowed to restore to a more natural state.

Some areas of clearing will be between 50-70 feet wide and these areas are generally not proposed to be planted following clearing. Plantings are proposed only at Bridge 127 (Sta. 397+70 to 401+80), Bridge 128 (Sta. 723+70 to 729+00), and within mapped priority habitat (Sta. 361+55 to 400+22). Neither the plant number nor area to be planted within priority habitat are specified. The remainder of the corridor will be seeded with a native mix for stabilization and will be allowed to "revegetate naturally".

WPA1. *The Commission should consider whether the Project qualifies as a limited Project under the provision cited above and whether the Applicant has overcome the burden to demonstrate compliance with the conditions of this provision*

VHB: See response to Comment C2.

BETA2: As stated in our response to C2, the determination of a Project's compliance with any Limited Project Provisions and issuance of an OOC permitting a Project that does not meet the Performance Standards is at the discretion of the Conservation Commission. The burden of proof that the project can adhere to the Performance Standard lies with the Applicant.

WPA2. *Permanent clearing and grading and clearing associated with the transmission line extends outside the footprint of the MCRT bikepath and results in greater impacts.*

VHB: This Project has been designed as a joint transmission line/rail trail project and the impacts presented in the NOI are for both components of the Project. If it was only for the rail trail, the impacts would be very similar to the combined footprint. As with this Project, building a rail trail requires clearing, rail and tie removal, grading, installation of stormwater management controls, slope work to meet existing grade, and a gravel sub-base, with a working width of at least 19 feet. In addition, the rail trail component of the Project requires reconstruction of Bridge 127 and rehabilitation of Bridge 128 in Sudbury to support rail trail users and emergency vehicles (e.g., ambulances).

BETA2: The NOI and supplemental information is not sufficient to describe the work or the effect of the work on the interests identified in the M.G.L. c 131 section 40 and the Bylaw. The full extent of clearing, mowing, grading associated with the proposed width of the constructed level surface, and excavation associated with the manhole and duct bank installation are not required for construction of the rail trail.

310 CMR 10.53(6): *"The issuing authority may issue an Order of Conditions permitting ... the construction ... of bikepaths ... to or along riverfront areas but outside other resource areas, provided that adverse impacts from the work are minimized and that the design specifications are commensurate with the Projected use and are compatible with the character of the Riverfront Area."*

C5. *Much of the bikepath portion of the Project meets the requirements of this limited project provision, except where the work extends into BVW, BLSF, and LUW. These locations are not specified, and the impacts associated with the bikepath segments that do not qualify as a limited project are not quantified separately. Construction of the 22-foot wide construction platform and final 19-foot maintained corridor are not required for construction of the bikepath.*

VHB: The comment is correct. The limited project provision at 310 CMR 10.53(6) provides relief from the RFA regulations where the RFA does not overlap BVW, BLSF or LUW.

BETA2: No further comment.

WPA3. *Provide separate permanent impacts associated with the bike trail limited project within Riverfront Area from the permanent impacts to the corridor resulting from the transmission line.*

VHB: As discussed in Table 1 of the NOI, the only permanent impacts in Riverfront Area are from the MCRT. Please refer to Table 1 for MWPA RFA and Sudbury Bylaw RFA permanent impacts. Also, see response to Comment WPA2 and WPA37.

BETA2: This comment has not been addressed.

WPA4. *Quantify the temporary and permanent impacts to resource areas where the bikepath does not qualify as a limited project. This is necessary to confirm whether the Project meets the performance standards for all resource areas.*

VHB: When concurrently within Riverfront Area and Bordering Land Subject to Flooding, the MCRT will have 4,767 square feet of temporary impact and 2,986 square feet of permanent impact.

BETA2: The Applicant has quantified the impacts associated with construction of the MCRT that do not qualify as a Limited Project, however, the Applicant does not describe what proposed activities result in the quantified temporary impacts vs what activities result in the quantified permanent impacts.

Based on how VHB has quantified temporary and permanent impacts to RA and BLSF throughout the Project corridor (see WPA33 and WPA37), it is likely that the impacts presented in WPA4-VHB are not accurately quantified and that the Project will result in greater permanent impacts than quantified.

Specify what work results in temporary vs. permanent impacts as quantified in VHB's response to WPA4.

310 CMR 10.53(8): *"Any person proposing the replacement of an existing stream crossing shall demonstrate to the Issuing Authority that the impacts of the crossing have been avoided where possible, and when not possible have been minimized and that mitigation measures have been provided to contribute to the protection of the interests identified in MGL c. 131 s. 40."*

This provision lists site constraints that may limit a bridge replacements ability to meet the MA Stream Crossing Standards. One stream crossing (Bridge 127 – Sta. 725) will be replaced during Phase 1 of the Project. The applicant has adequately evaluated the replacement structure's compliance with the MA Stream Crossing Standards (Section 5.1.2). Based on their evaluation and the bridge construction description (Section 3.1.9.1 of the NOI), the proposed structure will result in a change in the stream hydrology. Since FEMA Floodway exists at the two Hop Brook crossings, encroachments (fill, bridge and transmission line components) would be prohibited below the FEMA Floodway elevation unless it is demonstrated through hydraulic analysis that the encroachment will not result in any increase in flood levels within the community both upstream and downstream during the occurrence of the base flood discharge.

It does not appear that the Applicant has evaluated the risk of meeting the MA Stream Crossing Standards considering the site constraints as required under the provisions at 310 CMR 10.53(8).

WPA5. Provide evaluation of the replacement stream crossing's potential for downstream flooding, stream stability, impacts to wetlands by replacing the crossing, and the potential to affect property and infrastructure. A "no-rise" determination would be required to demonstrate the Project's compliance with this provision.

VHB: The replacement stream crossing complies with the National Flood Insurance Program regulations for work within a floodway and results in a "no-rise". A "no-rise" certificate stamped by a professional engineer will be provided to the Town of Sudbury's Floodplain Administrator prior to construction

BETA2: Based on the Applicant's response, it is presumed that the evaluation of the potential for downstream flooding, stream stability, impacts to wetlands and the potential to affect property and infrastructure has not been performed. Therefore, the NOI is not sufficient to describe the work or the effect of the work on the interests identified in the M.G.L. c 131 section 40 and the Bylaw.

Impacts associated with placement of the timber crane mats in FEMA Floodway should also be evaluated.

Inland Bank – 310 CMR 10.54(4):

The NOI states that work associated with construction of the transmission line, approach to Bridge 127, and the Bridge 127 replacement will result in 246 linear feet of Bank alteration. This work includes clearing, grading, installation of timber construction mats into the embankment, construction of bridge abutments upgradient of the existing abutments, re-grading the embankments, and stabilization. Based on the descriptions provided in the NOI, it is unclear how the Bank will be restored following completion of bridge construction in order to comply with the standards at 310 CMR 10.54(4)(a)(1, 2, 4, and 5)⁶.

According to Section 3.1.1 of the NOI, vegetation removal will only include standing vegetation removal and stumps/roots will remain in place, however, slope excavation and timber mat placement will require stump/root excavation which will destabilize the Bank. The description of Bank stabilization efforts states that the Bank will be regraded, jute netting will be placed on the Bank, the area will be seeded, vegetation will be planted within the Buffer Zone to the Bank, and standing dead trees will be reinstalled, however, the plans do not depict the plant locations and the same seed mix will be used for stabilizing the Bank and the Buffer Zone.

WPA6. Provide crane mat cross sections using existing topography.

VHB: Conceptual crane mat sections are provided on Sheet 125 of the Eversource NOI plans. The contractor will be required to install the mats within the footprint that is shown on the plans. The actual cross section for the crane mats will be based on the contractor's means and methods and the exact layout will be determined in the field.

BETA2: The NOI is not sufficient to describe the work or the effect of the work on the interests identified in the M.G.L. c 131 section 40 and the Bylaw. The Commission has the regulatory authority to require construction detail plans that fully describe the proposed work.

As shown on the conceptual section on sheet 125 of the plan set, crane mat placement requires a level surface, which is not present at the limit of the proposed crane mat boundary. True cross sections of the crane mats, using existing topography, are required to the east and west of both bridges to determine the impacts of the work on the resource areas.

WPA7. Provide additional details describing how vegetation removal, excavation of the Bank, and installation of timber mats on the Bank will not impair the physical stability of the Bank in accordance with 310

⁶ 310 CMR 10.54(a): Where the presumption set forth in 310 CMR 10.54(3) is not overcome, any proposed work on a Bank shall not impair the following:

1. the physical stability of the Bank;
2. the water carrying capacity of the existing channel within the Bank;
3. ground water and surface water quality;
4. the capacity of the Bank to provide breeding habitat, escape cover and food for fisheries;
5. 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 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.
6. Work on a stream crossing shall be presumed to meet the performance standard set forth in 310 CMR 10.54(4)(a) provided the work is performed in compliance with the Massachusetts Stream Crossing Standards by consisting of a span or embedded culvert in which, at a minimum, the bottom of a span structure or the upper surface of an embedded culvert is above the elevation of the top of the bank, and the structure spans the channel width by a minimum of 1.2 times the bankfull width. This presumption is rebuttable and may be overcome by the submittal of credible evidence from a competent source. Notwithstanding the requirement of 310 CMR 10.54(4)(a)5., the impact on bank caused by the installation of a stream crossing is exempt from the requirement to perform a habitat evaluation in accordance with the procedures contained in 310 CMR 10.60.

CMR 10.54(4)(a)(1).

VHB: As described in Section 5.1.4 of the NOI, the only location where Bank impacts will occur is at Bridge 127 due to temporary placement of crane mats. The Bank here is located outside of the limits of grading and as such the bank will not be excavated in any manner. The installation and removal of timber mats on the bank will be completed in a manner to ensure that maintains the physical stability of the Bank. Prior to the placement of timber mats on the Bank, existing vegetation will be cut by hand or using mechanical methods, but the existing root systems will not be removed or disturbed. Timber mats will then be placed on the bank. Construction of bridge abutments will take place behind the existing abutments and will not result in Bank impacts. Crane mats will be in place for the minimum duration necessary and will be removed immediately upon completion of activities (or outside of TOYR, as applicable) where the use of a crane is required, and once the mats are removed the Bank will be restored to existing elevations (if necessary) then stabilized with jute mesh and coconut fiber erosion control blankets and seeded with a woody seed mix. The root systems of the vegetation that was in the Bank and which was trimmed prior to the placement of timber mats will provide natural recruitment for revegetation. In addition, the area will be planted with woody shrubs and trees (see sheets 130 and 131 in Attachment B of the NOI). All of these measures will ensure the physical stability of the bank is maintained throughout the Project.

BETA2: The NOI is not sufficient to describe the work or the effect of the work on the interests identified in the M.G.L. c 131 section 40 and the Bylaw.

The conceptual sections on sheet 125 of the plan set depict the edge of the crane mats placed toward the railbed below the existing ground elevation. This requires excavation of the existing surface soils, which will not be possible without root removal. Since the crane mats will be placed below the Bank boundary, impacts to the Bank are likely. Provide requested information.

WPA8. Provide additional details for restoring the Bank topography to ensure final topography is consistent with existing grades to confirm compliance with 310 CMR 10.54(4)(a)(2).

VHB: The regulations at 310 CMR 10.54(4)(a)(2) state that proposed work on a Bank shall not impair the water carrying capacity of the existing channel within the Bank. As described in Section 5.1.4 of the NOI, the placement of crane mats will not impair the water carrying capacity of the existing channel because the mats will be placed in low gradient flow areas that are characteristic of marshes, adjacent to the main stream channel that is located under the bridge. Also refer to response to WPA7.

BETA2: The NOI is not sufficient to describe the work or the effect of the work on the interests identified in the M.G.L. c 131 section 40 and the Bylaw.

Regardless of whether the mats are within low flow areas or within the primary channel, the mats are still proposed within LUW and will temporarily impact the streams carrying capacity during construction.

Provide plans with the necessary level of existing conditions and restoration details at the Bank impact locations to ensure the topography will be restored to existing conditions following construction for compliance with the General Performance Standards for Bank.

Provide Bank restoration notes on Construction Plans.

WPA9. Provide plans depicting the locations of the restoration plantings, and number and locations of “standing dead tree” re-installation to confirm compliance with 310 CMR 10.54(4)(a)(4 and 5), and 10.60.

VHB: The planting schedule, which includes a combined herbaceous and woody seed mix as well as woody plantings, is located on Sheet 131 of the Eversource NOI plans. As stated within the response to Comment W32 and as stated within Section 3.1.10 of the NOI, Eversource’s qualified environmental monitor or qualified biologist will dictate the locations of the woody plantings to the contractor in the field. All woody plantings will be planting in a naturalized and random configuration to provide wildlife habitat and will not be planted in a linear manner. Similarly, the location of standing dead tree reinstallations will be directed in the field by a qualified biologist and will be within the vicinity of the wildlife habitat evaluation wetland impact area.

BETA2: The response does not adequately address the comment. Provide requested materials to confirm compliance with the General Performance Standards for Bank for restoration of the Bank’s function.

WPA10. Provide reasoning behind the use of one seed mix for restoration of Bank and Buffer Zone.

VHB: The seed mix specifically includes both upland and wetland species to promote stabilization in either wetland or upland areas and is appropriate for use on the Bank and Buffer Zone in the Project Locus. The herbaceous/woody seed mix was chosen to for all areas of temporary disturbance except for the DCR shoulders to support efficient construction and restoration. The bike path shoulders will be restored with the herbaceous seed mix shown under Schedule A on Sheet 131 of the Eversource NOI plans.

BETA2: BETA recommends that a more location specific seed mix application be proposed by the Applicant to increase diversity and the likelihood of seed germination and success. As discussed in other comments, BETA is recommending that the Commission require the planting of woody vegetation along with the application of an appropriate seed mix to promote successful habitat restoration in a shorter period of time.

WPA11. Provide clarification on the vegetation removal process along the Bank. Meaning, will vegetation removal require stump removal for dead trees? Or will dead trees be removed in accordance with the vegetation removal description provided in the NOI?

VHB: See the responses to Comments W13 and WPA7. Stump removal for dead trees will only be done as needed to ensure that crane mats are stable.

BETA2: The response does not address the comment. Specify where stumps will be removed on the Bank to ensure crane mat stability. Response is inconsistent with response to WPA12.

WPA12. Describe how the “standing dead trees” will be re-installed. BETA assumes the trees will not contain their roots based on the proposed method of clearing so they will need to be driven into the ground to some depth to maintain stability. We also assume these dead trees will easily be uprooted due to instability of soil at grade and therefore will result in downed trees, safety issues, and potential soil instability. Also, if the trees are installed by auger drilling, describe the methodology for such activity including auger’s outside diameter measurements, equipment access to advance the augers, etc. If work is to be completed by hand, provide a description of that methodology including depth of the hole, etc.

VHB: Standing dead trees to be retained for reinstallation will be identified ahead of vegetation removal, and roots will be retained. If the existing dead tree is too weak to be reinstalled, another tree of similar size that is already being removed for construction will be used to create the snag. In both cases, the upper branches will be removed and the tree will be installed at least 6 feet deep to ensure stability. The hole will be dug out and backfilled using an excavator.

BETA2: The VHB response and the NOI are not sufficient to describe the work associated with the removal and in-kind replacement of dead trees. There are too many inconsistencies with statements and responses associated with stump removal procedures. Additionally, a dead tree has dead roots. Removal of the dead tree with its root system intact or even partially intact for placement to a depth of at least six feet deep would require a substantial excavation depending on the type of tree root systems.

The use of additional machinery, significant soil disturbance and bracing to stabilize reinstalled dead trees are considerations in determining whether this mitigation component is appropriate for the Site.

WPA13. Provide evidence that reinstalling dead trees has resulted in successful habitat restoration and the number of standing dead trees that will need to be replaced to avoid an adverse effect on Wildlife Habitat.

VHB: By reinstalling the same dead trees that are currently providing habitat functions at a 1:1 ratio, those same functions will be put back once the trees are reinstalled and there will be no net loss in this type of wildlife habitat.

BETA2: The NOI and response are not sufficient to describe the work or the effect of the work on the interests identified in the M.G.L. c 131 section 40 and the Bylaw. Provide documentation that reinstalling standing dead trees has been successful in restoring this type of habitat for a similar period of time. Destabilizing the dead tree will likely lead to a quicker tree fall.

Proposed duct bank installation and bridge rehabilitation from Station 399+00 to 401+60 (Bridge 128) requires placement of timber construction mats immediately upgradient of the Bank, within one foot of the approved Bank boundary in some locations. Given the steep topography from the railbed to the Bank, work in the Buffer Zone of the Bank in this location is likely to result in impacts to Bank. The construction mat profile depicted on Sheet 125 is conceptual and not shown for the actual cross sections of the railbed adjacent to the crossing. The railbed embankments will be excavated for placement of the timber mats immediately adjacent to the Bank. In addition, the Bridge plans do not depict the resource area boundaries.

WPA14. Provide crane mat cross sections for the approaches to Bridge 128 using existing topography to accurately depict the work proposed in proximity to the Bank and confirm the work will not impact the Bank or be located in Land Under Water or FEMA Floodway

VHB: See the response to Comment WPA6. Refer to Sheet 47 of the Eversource NOI plans that shows the location of the wetland resource area boundaries and the location of the crane pad footprint, which shows that the crane pad is upgradient and not within those areas.

BETA2: The NOI is not sufficient to describe the work or the effect of the work on the interests identified in the M.G.L. c 131 section 40 and the Bylaw.

As described in BETA's response to comment WPA6, there is no level surface above the Bank boundary at both approaches to Bridge 128 for placement of the crane mat. The plan view is not adequate to confirm that no impacts to the Bank will result from crane mat placement. Provide

requested cross sections.

WPA15. Provide resource area boundaries on the Bridge plans (Plan Sheets 155 – 167).

VHB: Resource area boundaries have been added to Sheets 155-167 and are included in the revised plan set that is an attachment to this supplemental submission.

BETA2: The NOI is not sufficient to describe the site or the effects of the work on the interests identified in the M.G.L. c 131 sec 40 and the Bylaw. The bridge plan sheets (Plan Sheets 156-168) have been revised to add the resource areas. However, all activities associated with work at Bridge 128 should be shown on the Bridge Key Plan to confirm no additional impacts to Bank will occur.

Bordering Vegetated Wetlands – 310 CMR 10.55(4):

The NOI application states the Project will result in 89 square feet of permanent BVW alteration and 527 square feet of temporary BVW alteration.

According to the NOI, temporary BVW alteration will result from installation of crane mats on both the east and west sides of Bridge 127 (Stations 724+33 to 726+36), replacement of a drainage pipe (~ Sta. 713+65), and from extending a drainage pipe and wetland replication construction (~Sta. 764+60). Restoration details for all temporarily impacted BVWs are not shown on the Plans and not adequately described in the NOI to confirm compliance with 310 CMR 10.55(4)(a)⁷.

WPA16. Provide soil restoration details for all temporarily impacted BVWs and provide BVW restoration notes on construction plans.

VHB: See response to SWB13. All soil restoration for temporarily impacted BVWs will be completed in accordance with Eversource's Best Management Practices Manual, which requires the following:

- Excavated soils shall be segregated by topsoil vs subsoil and replaced in the same order (i.e., subsoil beneath topsoil).
- Any rutting shall be regraded while taking care not to compact soils.

BETA2: The NOI is not sufficient to describe the site or the effects of the work on the interests identified in the M.G.L. c 131 sec 40 and the Bylaw. BETA's SWB13 comment and VHB's response are specific to construction of the wetland replication area. Eversource's BMP manual states that the BMPs for restoration of Wetlands/Watercourses (Page 5-2 of Attachment H) are for Projects where no permit is required. Explain applicability of this BMP to the Project.

Describe measures that contractors use to "not to compact soil".

Provide BVW restoration notes on construction plans.

Describe the wetland soil management (including stockpiling locations) and, if appropriate, measures used to ensure soil will not be impacted by exposure to aerobic condition.

WPA17. Provide planting plan for BVW restoration areas depicting species, locations and number of plants to be installed.

VHB: Please refer to Sheet 131 of Eversource's NOI plans for tables describing the species, locations, and number of plants to be installed in BVW restoration areas. As described in Section 3.1.10 of the NOI narrative, an environmental monitor will be onsite to properly space the proposed plantings

⁷ 310 CMR 10.55(4)(a): Where the presumption set forth in 310 CMR 10.55(3) is not overcome, any proposed work in a Bordering Vegetated Wetland shall not destroy or otherwise impair any portion of said area.

based on field conditions.

BETA2: The NOI is not sufficient to describe the site or the effects of the work on the interests identified in the M.G.L. c 131 sec 40 and the Bylaw. Provide a planting plan for all temporary BVW impact areas. The Plants on Sheet 131 are specific to plantings associated with only one of the areas. Sheet 131 does not provide enough information to confirm adequate restoration is proposed, since the table includes species used for restoration of BVW, Bank, LUW, BLSF, and RA. It is unknown what plants will be planted where.

Provide notes on plans where BVW restoration is required citing restoration requirements.

The BVW restoration plan should restore all temporarily impacts BVWs to the same wetland class. Provide restoration plan for each temporary BVW impact area.

WPA18. Specify the wetland seed mix to be used for BVW restoration.

VHB: See sheet 131 of Eversource's NOI plans for the seed mix to be used for BVW restoration. Also see the response to Comment WPA10.

BETA2: The seed mix specified on Sheet 131 is not appropriate for BVW restoration, as species within the mix are not suitable for wetland conditions. The seed mix to be used to BVW restoration should be specified on the plans.

No BVW impacts resulting from work on Bridge 128 are quantified, however, erosion controls to both the east and west of the Bridge are proposed to be placed on the wetland boundary and the timber mats will be installed within 1 foot of the wetland boundary. Due to the proximity of the erosion control and crane mat installation to the wetland boundary in all four quadrants, impacts to BVW from construction are likely.

WPA19. See WPA6. Provide crane mat sections using existing topography to show how the timber mats placed at the wetland edge can be installed and removed without any impacts to the adjacent BVW.

VHB: See the responses to Comments WPA6 and WPA14.

BETA2: The NOI is not sufficient to describe the work or the effect of the work on the interests identified in the M.G.L. c 131 section 40 and the Bylaw. Additional information is necessary to describe the effect of the work on resource areas that are within one foot of the limit of work.

Work associated with replacement of a drainage pipe (~ Sta. 713+65) and from extending a drainage pipe and wetland replication construction (~Sta. 764+60) will result in 4 square feet and 85 square feet of permanent impacts, respectively. Based on the descriptions provided in the NOI, the wetland replication plan does not comply with the standards at 310 CMR 10.55(4)(b)(2-5)⁸.

⁸ 310 CMR 10.55()(b): Notwithstanding the provisions of 310 CMR 10.55(4)(a), the issuing authority may issue an Order of Conditions permitting work which results in the loss of up to 5000 square feet of Bordering Vegetated Wetland when said area is replaced in accordance with the following general conditions and any additional, specific conditions the issuing authority deems necessary to ensure that the replacement area will function in a manner similar to the area that will be lost:

1. the surface of the replacement area to be created ("the replacement area") shall be equal to that of the area that will be lost ("the lost area");
2. the ground water and surface elevation of the replacement area shall be approximately equal to that of the lost area;
3. The overall horizontal configuration and location of the replacement area with respect to the bank shall be similar to that of the lost area;
4. the replacement area shall have an unrestricted hydraulic connection to the same water body or waterway associated with the lost area;
5. the replacement area shall be located within the same general area of the water body or reach of the waterway as the lost area;

No wetland replication is proposed in the area of Sta. 713+65 and instead, the size of the replication area adjacent to Sta. 764+60 was increased. The replication area at Sta. 764+60 is not at the same surface elevation, does not likely have the same groundwater elevation as Wetland 18, does not have an unrestricted hydraulic connection to the same water body or waterway associated with the lost area, and is not within the same general area of the water body as the lost area.

WPA20. Provide replication of the permanent BVW impacts proposed at Station 713+65 in compliance with the standards at 310 CMR 10.55(4)(b)(1-7).

VHB: The Project currently proposes replication for all permanent BVW impacts, including the 4 square feet of BVW loss at approximately STA 713+65, in a single contiguous area at the proposed replication area adjacent to Wetland 4. Replication is not currently proposed at approximately STA 713+65 because separately replicating an area of only 4 square feet in that location would disrupt AURA while providing negligible benefits.

The proposed replication area is approximately 819 square feet and constitutes replication at a ratio of 2:1 for all areas of permanent BVW and IVW loss. As discussed within the Wetland Replication Report included as Attachment D of the NOI, the replication area has been designed to provide greater species diversity and wildlife habitat and will result in an overall improvement to the BVW.

BETA2: The NOI is not sufficient to describe the work or the effect of the work on the interests identified in the M.G.L. c 131 section 40 and the Bylaw. The replication area is not in compliance with the BVW Performance Standards. The Project is already proposing to disturb 34,181 sf of AURA in this area. In addition, restoration of 23 sf of temporary impacts is proposed at Station 713+65. Replication in compliance with the Performance Standards is feasible and should be provided.

A wetland replication plan is presented in Attachment D of the NOI. The plan includes a description of the proposed hydrology, soils, and vegetation. Vegetation to be planted within the replicated BVW includes species typically suitable to replicate open emergent aquatic wetlands, whereas the wetland to be altered is a scrub shrub wetland, however, there is an emergent wetland to the north of the BVW replication area and sunlight conditions are likely appropriate for the species selected. The design proposes a larger wetland area (819 square feet) to also replicate the IVW (Sta. 732+50 / Wetland 13) to be filled (see Sudbury Bylaw Compliance Discussion).

The proposed wetland elevations appear to be appropriate based on the wetland to the north of the ROW, however, they are different than the existing wetland elevations. Based on a field inspection of the area, the wetland replication is located in an area of extensive invasive vegetation growth.

WPA21. Provide reasoning behind changing the wetland elevation and plant selection based on site conditions.

VHB: As discussed within Section 5.1.5 of the NOI and the Wetland Replication Report included as Attachment D of the NOI, the proposed elevation in the replication area was determined based on two wells that were installed within the proposed replication area. Furthermore, as discussed in Section 1.2.3 of the Wetland Replication Report, the plant species that were selected are suitable to the proposed hydrologic and soils conditions and were selected for their wildlife value as potential nesting sites, protective cover, and food sources.

6. at least 75% of the surface of the replacement area shall be reestablished with indigenous wetland plant species within two growing seasons, and prior to said vegetative reestablishment any exposed soil in the replacement area shall be temporarily stabilized to prevent erosion in accordance with standard U.S. Soil Conservation Service methods; and

7. the replacement area shall be provided in a manner which is consistent with all other General Performance Standards for each resource area in Part III of 310 CMR 10.00.

BETA2: The Wetland Replication Report does describe the depth to groundwater and plant species selection, however, greater shrub species diversity is recommended. The proposed topography within the existing wetland (as shown on plan sheet 135) will be lowered by more than 2 feet, changing the wetland type and functions. Provide a summary of the BVW functions impacted by the Project and describe how the replication area will replicate those functions.

Construction of the replication area will require excavation, grading, and soil placement at least 38 inches below the groundwater elevation. Provide construction details (including dewatering locations) for construction of the replication area.

The hydraulic connection to be extended between Wetlands 3 and 4 to maintain the hydraulic connection is a good example of a structure that, if replaced, could increase openness, improve habitat connectivity, and promote migration beneath the railbed (as opposed to than over the railbed).

WPA22. Provide an intensive invasive species management plan for the area surrounding the wetland replication area.

VHB: As described in the Wetland Replication Report provided as Attachment D of the NOI, the wetland replication area will be monitored for invasive species during the first two growing seasons following planting. In addition to the wetland replication area itself, this monitoring will include any adjacent areas that were disturbed to create the replication area as part of the Project (i.e., if any invasive species are found, they will be uprooted and removed from the area).

BETA2: The NOI is not sufficient to describe the work or the effect of the work on the interests identified in the M.G.L. c 131 section 40 and the Bylaw. The invasive species monitoring described in the Wetland Replication Plan is not adequate. See W36-BETA2.

WPA23. Include a special condition requiring invasive species management within and adjacent to the replication area for a minimum of 5 years following completion of the replication effort.

VHB: The Applicants disagree with this suggested special condition. Section 1.3 of the Wetland Replication Report discusses monitoring of the replication area, including invasive species, which complies with the requirements in the WPA regulations. The Applicants suggest and are amenable to a special condition requiring a minimum of annual monitoring within the replication area until 75% cover is met.

BETA2: The invasive species management described in the Wetland Replication Plan is not adequate for control of invasive plants. A Special Condition could be included requiring monitoring and invasive species management within and adjacent to the replication area until 90% native cover is achieved, and a full Certificate of Compliance is issued.

Land Under Water – 310 CMR 10.56(4)(a)

The NOI application states work associated with construction of the transmission line, approach to Bridge 127, and the Bridge 127 replacement will result 1,146 square feet of temporary Land Under Water alteration. This work includes grading, installation of erosion controls and placement of timber construction mats. According to the NOI, following the removal of the mats, the area of temporary LUW impacts will be stabilized with jut mesh erosion control blankets and seeded with a wetland seed mix. Based on the descriptions provided in the NOI, it is unclear how the LUW will be restored following completion of bridge construction in order to comply

with the standards at 310 CMR 10.55(4)(a)(2 and 3)⁹. The Applicant will only have the timber mats installed within the stream between July 1 and September 31 during construction to comply with Time of Year restrictions for Hop Brook. Wildlife presence in the soil and sediment of Hop Brook is also unknown and restoration of soil density following construction for this resource area is not provided.

The Wildlife Habitat Evaluation does not describe the importance of the LUW resource area within the limit of work, nor does it individually address the Project's impacts on this resource area. Although impacts are stated to be temporary, vegetation is present within LUW within the Limit of work to both the northeast and southeast of Bridge 127.

WPA24. Provide details on how timber mats will be placed on LUW (in water) that avoids permanent impacts to the riverbed. If the mats will be placed in dry conditions, then provide details for dewatering.

VHB: Although these areas have been identified as LUW based on the ANRAD peer review process, the mats will not be placed in the riverbed but in low gradient flow areas that are characteristic of marshes, adjacent to the main stream channel that is located under the bridge. As described in Section 5.1.6 of the NOI, crane mats will be in place for the minimum duration necessary and will be removed immediately upon completion of activities where use of a crane is required. During reconstruction of Bridge 127 filter fabric will be laid under and wrapped around the timber crane mats to prevent sediment from entering the waterbody, and erosion and sediment control measures including turbidity controls will ensure that sediment does not enter the stream channel. Once Bridge 127 is reconstructed, the crane mats will be removed, and the area will be restored (see crane mat restoration detail on sheet 130 in the Eversource NOI plans).

BETA2: The NOI and supplemental information / response is not sufficient to describe the work or the effect of the work on the interests identified in the M.G.L. c 131 section 40 and the Bylaw. The crane mats will be placed below the river bank within LUW. The Commission should consider that this is a Cold Water Fishery Resource and therefore has presumed important fish habitat. The low gradient flow areas of this critical resource has unique fish habitat conditions that require full restoration.

WPA25. Provide details on how timber mats will be placed and maintained on LUW (in water) that avoids turbidity of the adjacent surface waters.

⁹ 310 CMR 10.56(4)(a)(1-5): Where the presumption set forth in 310 CMR 10.56(3) is not overcome, any proposed work within Land under Water Bodies and Waterways shall not impair the following:

1. The water carrying capacity within the defined channel, which is provided by said land in conjunction with the banks;
2. Ground and surface water quality;
3. The capacity of said land to provide breeding habitat, escape cover and food for fisheries; and
4. The capacity of said land 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 5,000 square feet (whichever is less) of land in this resource area found to be significant to the protection of wildlife habitat, shall not be deemed to impair its capacity to provide important wildlife habitat functions. Additional alterations beyond the above threshold may be permitted if they will have no adverse effects on wildlife habitat, as determined by procedures established under 310 CMR 10.60.
5. Work on a stream crossing shall be presumed to meet the performance standard set forth in 310 CMR 10.56(4)(a) provided the work is performed in compliance with the Massachusetts Stream Crossing Standards by consisting of a span or embedded culvert in which, at a minimum, the bottom of a span structure or the upper surface of an embedded culvert is above the elevation of the top of the bank, and the structure spans the channel width by a minimum of 1.2 times the bankfull width. This presumption is rebuttable and may be overcome by the submittal of credible evidence from a competent source. Notwithstanding the requirements of 310 CMR 10.56(4)(a)4., the impact on Land under Water Bodies and Waterways caused by the installation of a stream crossing is exempt from the requirement to perform a habitat evaluation in accordance with the procedures established under 310 CMR 10.60.

VHB: See response to Comment WPA24 regarding placement of timber mats in LUW and the use of erosion controls that will avoid turbidity within Hop Brook. At the time of construction, a silt curtain or another measure that is appropriate based on field conditions will be used.

BETA2: The NOI and supplemental information / response is not sufficient to describe the work or the effect of the work on the interests identified in the M.G.L. c 131 section 40 and the Bylaw. Placement and removal of the mats should be described sufficiently to demonstrate that LUW will not be impacted and that water quality of the Cold Water Fisheries Resource is strictly maintained.

The mats may become embedded in the sediment when loaded with machinery. Provide details on how the mats will be removed without impacting water quality.

WPA26. Provide a description of how the jute mesh erosion control blankets will be secured in LUW to avoid impacts to ground and surface water quality.

VHB: Erosion control blankets will not be installed within LUW at Bridge 128. As described in the “Notes for Jute Mesh Erosion Control Fabric” and the Typical Crane Mat Restoration Cross Section – Bridge 127 on Sheet 130 of the Eversource NOI plans, each blanket will be installed by hand and secured with a minimum of four notched wood stakes that will be installed at each corner. Perimeter erosion controls will remain in place during installation of the blankets and the blankets will stabilize the slope, which will protect ground and surface water quality.

BETA2: The NOI and supplemental information / response is not sufficient to describe the work or the effect of the work on the interests identified in the M.G.L. c 131 section 40 and the Bylaw. The erosion blanket detail and installation notes describe the use of wire staples for securing the erosion control blankets and do not depict the locations of the proposed “notched wood stakes”.

BETA recommends securing the blankets with only biodegradable materials.

Specify the type of wood to be used to secure the blankets.

WPA27. Describe how the wetland seed mix will be retained onsite so it is not washed away during the establishment period.

VHB: As stated within the Notes for Jute Mesh Erosion Control Fabric on Sheet 130 of the Eversource NOI plans, the seed mix at Bridge 127 will be applied to the soil and will be covered with the jute mesh erosion control fabric. By placing the seed mix beneath the erosion control fabric, it will be protected from runoff during storm events. In other areas of temporary BVW impact, the seed mix will be covered with straw to protect it from erosion as necessary.

BETA2: The jute mesh fabric specified appears like it will provide structure and protection of seed during the establishment period. The use of hay and/or straw for the BVW restoration is detailed in the Eversource BMP Manual (Page 5-3) but is not described in Section 5.1.5 of the NOI and is not noted on the construction plans. Revise the NOI and plans to note BVW restoration procedure for all temporarily impacted BVW and revise BMP Manual to remove references of the use of hay.

WPA28. Provide plug plantings of native species within the LUW restoration area to restore the wildlife habitat function of this resource area.

VHB: The restoration plan includes plugs of aquatic plants within LUW. Refer to Sheet 131 of the Eversource NOI plans for details.

BETA2: The NOI is not sufficient to describe the work or the effect of the work on the interests identified in the M.G.L. c 131 section 40 and the Bylaw. Aquatic plants are proposed to be installed at both Bridge 127 and 128 locations. Provide planting plans showing the location of the proposed species to document restored vegetation density. In addition, the seed mix on sheet 131 is not appropriate for LUW restoration given the number of upland species. A seed mix with native wetland seed appropriate for flooded conditions is recommended.

Section 3.1.9.1 of the NOI describes the work associated with the bridge work. Work on Bridge 127 includes removing the existing timber piers, which will be cut at the mudline and removed by hand. No temporary LUW impacts are quantified for this work and description of how this work will be conducted in accordance with the LUW performance standards is not provided (i.e. will the work be conducted in the dry, and if not, how will water quality be protected during removal).

WPA29. Provide a description of how work associated with the removal of the existing Bridge 127 timber piers of Bridge 127 will be completed in accordance with 310 CMR 10.56(4)(a).

VHB: As described in Section 3.1.9.1 of the NOI, the timber piles will be cut at the mud line by hand to minimize impacts to Land Under Water Bodies and Waterways and no permanent or temporary impacts are anticipated. Please refer to Section 5.1.6 of the NOI for a discussion of compliance with 310 CMR 10.56(4)(a). Removal of the existing timber piers will not impair the water carrying capacity within the defined channel; the ground and surface water quality; the capacity of LUWW to provide breeding habitat, escape cover and food for fisheries; or the capacity of LUWW to provide important wildlife habitat functions. Removal of the piers will have no effect on the Project's compliance with the Stream Crossing Standards.

BETA2: The NOI and supplemental information / response is not sufficient to describe the work or the effect of the work on the interests identified in the M.G.L. c 131 section 40 and the Bylaw. Provide more detail on how this work will be conducted (i.e. access to piers, type of equipment, use of divers). Describe how sediment suspension will be avoided and how the work will not increase turbidity in the stream. Also, the Applicant should address potential impacts to small boat navigability if timber piers are cut only to the mud line and not below.

Bordering Land Subject to Flooding - 310 CMR 10.57(4)(a)(1-3)

The NOI application states the Project will result in 2,622 square feet of permanent BLSF impacts and 7,749 square feet of temporary BLSF impacts. Work within BLSF along the Project corridor is located at Bridge 128, along the Unnamed tributary to Hop Brook (parallel to Station Road), and at Bridge 127.

As previously stated, the ORAD affirmed the FEMA 100-year base flood elevations (BLSF boundary) only. It is unclear how much of the topography within the Floodplain areas was surveyed in the field. Accordingly, areal BLSF impacts and fill volumes below the 100-year floodplain boundary may not be accurate.

WPA30. Provide confirmation that all topography shown on the Project plans (in areas where BLSF and FEMA Floodway is present) is a result of an on-the-ground survey.

VHB: See the response to Comment C1.

BETA2: The response to C1 indicates that the topography shown on the Project plans is not a result of an on-the-ground survey, however, the BLSF boundary was approved as shown on the Plans.

The Proponent has included cut and fill calculations for the Project and has indicated that the Project will result in a Net Gain of 78.46 cubic yards of storage. The methods of the cut and fill calculations were not provided and are not conducted in a way that can confirm compliance with the standards at 310 CMR 10.57(4)(a)(1).

Cut and fill volumes for the length of the Project along the Unnamed Tributary to Hop Brook are combined, as are the cut and fill volumes for the length of the Project along Hop Brook. The proposed cut and fill volumes are not separated by the stream reaches in which the cut/fill are proposed. Displaced water within a given reach should be compensated for within that reach to avoid impacts to stream hydrology and changes in the flood stage.

WPA31. Provide a cut/fill analysis for the project by stream reach and elevations to confirm adequate compensatory storage is provided in accordance with 310 CMR 10.57(4)(a)(1)¹⁰.

VHB: The cut/fill analysis by station and elevation was provided in Table 11 of the NOI.

BETA2: The NOI is not sufficient to describe the work or the effect of the work on the interests identified in the M.G.L. c 131 section 40 and the Bylaw. The cut/fill volumes provided in Table 11 are not calculated by reach, and therefore compliance with the cited standard cannot be evaluated. Provide requested information.

WPA32. Provide planting plans for compensatory storage areas.

VHB: The planting schedule on Sheet 131 details all proposed restoration by station, including a combined herbaceous/woody seed mix, shrub plantings, and tree plantings.

BETA2: The NOI is not sufficient to describe the work or the effect of the work on the interests identified in the M.G.L. c 131 section 40 and the Bylaw. Plantings are only proposed at the bridge crossing areas (397+70 to 401+60; 723+70 to 726+30) and within the BLSF area east of Bridge 127 (726+30 to 729+00). Other areas of BLSF grading and stabilization will only be seeded. Seeding within BLSF impact areas is not adequate to restore the resource area functions and values in a foreseeable timeframe.

Provide plans depicting plantings within areas that provide compensatory storage for the proposed fill within the floodplain.

The application quantifies only the proposed paved areas within BLSF as permanent impacts, while areas that will be impacted from grading, duct bank installation, and continued maintenance are considered only temporary. The impacts to BLSF were not quantified correctly to accurately describe the projects impact on wildlife habitat. For BLSF impacts to be considered temporary, cleared areas should be planted with native species ultimately resulting in varying heights to comply with 310 CMR 10.60(1)(a)¹¹.

¹⁰ 310 CMR 10.57(4)(a)(1): Compensatory storage shall be provided for all flood storage volume that will be lost as the result of a proposed project within Bordering Land Subject to Flooding, when in the judgment of the issuing authority said loss will cause an increase or will contribute incrementally to an increase in the horizontal extent and level of flood waters during peak flows.

Compensatory storage shall mean a volume not previously used for flood storage and shall be incrementally equal to the theoretical volume of flood water at each elevation, up to and including the 100-year flood elevation, which would be displaced by the proposed project. **Such compensatory volume shall have an unrestricted hydraulic connection to the same waterway or water body. Further, with respect to waterways, such compensatory volume shall be provided within the same reach of the river, stream or creek (emphasis added).**

¹¹ 310 CMR 10.60(1)(a): To the extent that a proposed project on inland Banks, Land under Water, Riverfront Area, or Land Subject to Flooding will alter vernal pool habitat or will alter other wildlife habitat beyond the thresholds permitted under 310 CMR 10.54(4)(a)5., 10.56(4)(a)4., 10.57(4)(a)3. and 10.58(4)(d)1., such alterations may be permitted only if they will have no adverse effects on wildlife habitat. Adverse effects on wildlife habitat mean the alteration of any habitat characteristic listed in 310 CMR 10.60(2), insofar as such alteration will, following two growing seasons of project completion and thereafter (or, if a project would eliminate trees, upon the maturity of replanted saplings) substantially reduce its capacity to provide the important wildlife habitat functions listed in 310 CMR 10.60(2). Such performance standard, however, shall not apply to the habitat of rare species, which are covered by the performance standards established under 310 CMR 10.59.

WPA33. Provide accurate permanent and temporary BLSF impacts associated with the Project. Areas that will be converted from forested land to maintained grass area and areas where the topography is changing permanently should be quantified at permanent impacts.

VHB: Section 5.1.7 of the NOI provides an accurate account of the permanent and temporary BLSF impacts associated with the Project and provides a detailed and complete discussion of how the Project complies with all applicable performance standards in 310 CMR 10.57(4) for proposed activities within BLSF. The information provided in Section 5.17 related to proposed impacts is presented in two ways; (1) as it relates to the performance standards for flood storage, volume, and connectivity to the adjacent waterbody, and (2) as it relates to wildlife habitat functions. Table 11 presents the summary of changes to flood storage volume proposed in BLSF as it relates to the performance standards associated with this function, while Table 10 presents the accurate account of the permanent and temporary disturbance to BLSF as it relates to wildlife habitat functions. As demonstrated in Section 5.17, the Project will result in a net gain of compensatory flood storage. In addition, all disturbed areas outside the proposed paved portion of the MCRT will be revegetated with native vegetation. The proposed revegetation consists of a combination of supplemental woody plantings and/or the planting of a native seed mix that contains both woody and herbaceous species that will provide adequate wildlife value once established (see Sheet 131 of the Eversource plans for the planting schedule).

BETA2: The NOI is not sufficient to describe the work or the effect of the work on the interests identified in the M.G.L. c 131 section 40 and the Bylaw. The Project will result in greater permanent impacts to BLSF than quantified.

WPA34. Provide an updated wildlife habitat evaluation that accurately describes the project's effect on the Wildlife Habitat provided by BLSF and the Project's effect on the site's ability to provide this function following construction.

VHB: An updated WHE is not required. The WHE that was submitted as Attachment J to the NOI accurately assesses potential impacts to important wildlife habitat features for BLSF which is associated with Wetland Impact Areas ("WIA") S4, S5, S15, and S16 through S19. Section 3 of the NOI evaluates each individual WIA, including an adverse effects analysis and proposed restoration. Also, it is important to reiterate that the DEP regulation at 310 CMR 10.60(1) states that the alteration of a resource area's characteristics (e.g., topography, vegetation, hydrology) will not have an adverse effect on wildlife habitat if within two growing seasons (or, if a project would eliminate trees, upon maturity of the replanted saplings) the capacity of the area to provide important wildlife habitat functions listed in 310 CMR 10.60(2) (e.g., food, shelter, breeding areas, nesting sites, and migratory areas) is not substantially reduced. In addition, the MassDEP "Wildlife Habitat Protection Guidance for Inland Wetlands" (the "Guidance") states, "it is not adequate to conclude that a project will result in an adverse effect only because alterations to wildlife habitat are proposed. The alterations become 'adverse' when they substantially [emphasis added] reduce the site's capacity to provide important wildlife habitat functions (e.g., shelter, food, breeding areas) and consequently reduce the site's capacity to support wildlife." The Guidance also states, "simply put, no adverse effect does not mean no alteration." The proposed restoration as part of the Phase 1 portion of the Project was designed to be well established within two growing seasons to maintain the capacity of the area to provide important wildlife habitat functions.

BETA2: The NOI is not sufficient to describe the work or the effect of the work on the interests identified in the M.G.L. c 131 section 40 and the Bylaw. The WHE combines the resource areas and does not discuss the impacts to habitat features by resource area. Therefore, determining the Project's impact on habitat functions of BLSF cannot be evaluated based on the WHE conducted.

The project does not meet the Performance Standards at 310 CMR 10.57(4)(a)(3). Areas that will only be seeded with a woody / herbaceous species seed mix will not maintain its capacity to provide important wildlife functions as the existing habitat within two years.

The WHE fails to quantify the important wildlife habitat characteristics present beyond the impact area within the Site (the ROW). Quantify the important wildlife habitat characteristics on the entire site, as required to determine the Project's effect on the wildlife habitat function of the Site for each resource area.

WPA35. Provide planting plans for the BLSF restoration areas.

VHB: Table 10 in the NOI contains the proposed temporary BLSF impacts, which will be restored. The planting schedule on Sheet 131 details all proposed restoration by station, including a combined herbaceous/woody seed mix, shrub plantings, and tree plantings.

BETA2: The NOI is not sufficient to describe the work or the effect of the work on the interests identified in the M.G.L. c 131 section 40 and the Bylaw. Plantings are only proposed at the bridge crossing areas (397+70 to 401+60; 723+70 to 726+30) and within the BLSF area east of Bridge 127 (726+30 to 729+00). Seeding with a mix that includes a limited number of woody species throughout the site without the necessary watering, monitoring for invasive species and monitoring for germination does not have a likelihood for successful in-kind restoration in a foreseeable future.

In addition, the Applicant cites 310 CMR 10.57(1)(a)(3)¹² in their description of the Project's compliance with the BLSF wildlife habitat performance standard and in their NOI narrative description of compliance with 310 CMR 10.60. However, this section is not applicable to the Site since the railroad has been abandoned for approximately 50 years.

WPA36. This section of the regulations appears to be inappropriately cited. Any decisions or evaluations that employed this statement should be re-evaluated. Otherwise, the Applicant should provide legal decisions that address this provision interpretation.

VHB: This regulation is appropriately cited and applicable. The fact that the railroad has not been operated recently does not change the fact that rail tracks, ballast and embankment are listed among the types of areas that have been so extensively altered by human activity that their important wildlife habitat functions have been effectively eliminated. However, as stated within Section 1.1.1.2 of the WHE, a Detailed Appendix B WHE was completed for each impact area,

¹² 310 CMR 10.57(1)(a)(3): *Certain portions of Bordering Land Subject to Flooding are also likely to be significant to the protection of wildlife habitat. These include all areas on the ten year floodplain or within 100 feet of the bank or bordering vegetated wetland (whichever is further from the water body or waterway, so long as such area is contained within the 100 year floodplain), and all vernal pool habitat on the 100 year floodplain, except for those portions of which have been so extensively altered by human activity that their important wildlife habitat functions have been effectively eliminated (such "altered" areas include paved and gravelled areas, golf courses, cemeteries, playgrounds, landfills, fairgrounds, quarries, gravel pits, buildings, lawns, gardens, roadways (including median strips, areas enclosed within highway interchanges, shoulders, and embankments), railroad tracks (including ballast and embankments), and similar areas lawfully existing on November 1, 1987 and maintained as such since that time). (emphasis added).*

including BLSF.

BETA2: The cited section of the regulations states that altered BLSF must be maintained for the function it was altered for to be considered so extensively altered that their wildlife function has been eliminated.

See response to WPA34 regarding the WHE.

Riverfront Area - 310 CMR 10.58(4) and (5)

As stated in the NOI, the Project will result in impacts to Riverfront Area associated with three perennial streams (as defined under the WPA) and in total, will result in 129,261 square feet of impact in the inner (0-100') riparian area and 27,205 square feet in the outer (100-200') riparian area.

C8. The NOI describes much of the corridor as being “previously degraded”, stating that the 11-foot area occupied by the rail ties, steel rails, and stone ballast meet the definition. The NOI narrative on pages 59 states that all work is proposed entirely within previously degraded RA, however, on page 57 the Applicant states that, in accordance with 310 CMR 10.58(5)¹³ there is a 11-foot-wide degraded area.

VHB: The referenced narrative actually states that all work associated with the Project, including both the transmission line and MCRT components, is proposed entirely within the previously developed and degraded area.

BETA2: The NOI is not sufficient to describe the work or the effect of the work on the interests identified in the M.G.L. c 131 section 40 and the Bylaw. As stated in the regulations, “A previously developed riverfront area contains areas degraded prior to August 7, 1996 by impervious surfaces from existing structures or pavement, absence of topsoil, junkyards, or abandoned dumping grounds.”

VHB states the entire Limit of Work is within “previously developed and degraded” areas. The Project plans, however, appear to depict work within RA beyond the limits of the constructed railbed at the manholes locations and where the railbed is lower in elevation than the surrounding topography. Work beyond the constructed railbed is not within degraded RA and is, therefore, not considered redevelopment.

Provide plans depicting the limit of previously degraded RA meeting the definition under 310 CMR 10.58(5) and quantify RA impacts that do not qualify as redevelopment.

Like the impacts proposed within BLSF, the NOI quantifies only the proposed paved areas within RA as permanent impacts, while areas that will be impacted from grading, duct bank installation, and continued maintenance are considered temporary. Impacts within previously degraded RA should be separated from impacts to vegetated RA that is currently providing wildlife habitat, as work within the vegetated RA must fully meet the standards at 310 CMR 10.58(4), while impacts within the previously degraded RA must meet the standards at 310 CMR 10.58(5).

WPA37.Re-evaluate permanent and temporary RA impacts associated with the Project. Impacts within previously degraded RA should be quantified separately from impacts outside the 11-foot wide rail ballasts. The areas to be cleared and maintained grass area, and areas where the topography is changing permanently should be quantified at permanent impacts.

¹³ 310 CMR 10.58(5): ...A previously developed riverfront area contains areas degraded prior to August 7, 1996 by impervious surfaces from existing structures or pavement, absence of topsoil, junkyards, or abandoned dumping grounds.

VHB: This does not require reevaluation. Please refer to the discussion in Section 5.1.8 of the NOI. Note that the Project specifications do not call for the creation of a maintained grass area in any location. The proposed revegetation consists of a combination of supplemental woody plantings and/or the planting of a native seed mix that contains both woody and herbaceous species that will be applied in all areas of temporary disturbance except for the bike path shoulders. The bike path shoulders will be restored with the herbaceous seed mix shown under Schedule A on Sheet 131 of the Eversource NOI plans. This revegetation plan will provide adequate wildlife value once established in all areas of temporary disturbance outside of the proposed permanent impact areas associated with the 10-foot paved surface for the MCRT.

BETA2: The NOI is not sufficient to describe the work or the effect of the work on the interests identified in the M.G.L. c 131 section 40 and the Bylaw. The corridor management plan calls for mowing of the shoulders every other week. This frequency will not allow the seed mix to go to flower or produce seed, effectively creating a maintained grass area. The area over the duct bank will also be mowed annually preventing the growth of shrubs and trees. Neither of these treatments will restore the RA's existing habitat value.

Propose canopy and shrub plantings in all temporary RA impact areas to restore the habitat function of the Site.

WPA38. Provide a description of how the impacts outside the existing previously degraded RA meet the performance standards at 310 CMR 10.58(4)(c and d)¹⁴.

VHB: Please refer to the discussion in Section 5.1.8 (page 56 and 57) of the NOI.

BETA2: See Comment C8-BETA2. The NOI is not sufficient to describe the work or the effect of the work on the interests identified in the M.G.L. c 131 section 40 and the Bylaw. The burden is on the Applicant to document compliance with the RA Performance Standards at 310 CMR 10.58(4) where work is not within degraded RA.

The redevelopment standards allow Projects to be constructed in previously degraded areas to not fully comply with the standards at 310 CMR 10.58(4)(c and d).

The narrative description of the Project's compliance with the standards at 310 CMR 10.58(5)(f)¹⁵ requires additional details to confirm compliance. Areas that will be stabilized with a native seed mix, but will be maintained are not true RA restoration, since the work will not result in comparable resource area functions. The entire length of the project within RA should be planted for the work to be considered restoration. Planting

¹⁴ 310 CMR 10.58(4)(c): Practicable and Substantially Equivalent Economic Alternatives. There must be no practicable and substantially equivalent economic alternative to the proposed project with less adverse effects on the interests identified in M.G.L. c. 131 § 40.

310 CMR 10.58(4)(d): No Significant Adverse Impact. The work, including proposed mitigation measures, must have no significant adverse impact on the riverfront area to protect the interests identified in M.G.L. c. 131, § 40.

¹⁵ 310 CMR 10.58(5)(f): When an applicant proposes restoration on-site of degraded riverfront area, alteration may be allowed notwithstanding the criteria of 310 CMR 10.58(5)(c), (d), and (e) at a ratio in square feet of at least 1:1 of restored area to area of alteration not conforming to the criteria. Areas immediately along the river shall be selected for restoration. Alteration not conforming to the criteria shall begin at the riverfront area boundary. Restoration shall include:

1. removal of all debris, but retaining any trees or other mature vegetation;
2. grading to a topography which reduces runoff and increases infiltration;
3. coverage by topsoil at a depth consistent with natural conditions at the site; and
4. seeding and planting with an erosion control seed mixture, followed by plantings of herbaceous and woody species appropriate to the site;

is proposed, however, the plans do not clearly depict the planting locations.

WPA39. Provide planting plans showing RA restoration.

VHB: The planting schedule on Sheet 131 of the Eversource NOI plan details all proposed restoration, including RA.

BETA2: The NOI and supplemental information / response are not sufficient to describe the work or the effect of the work on the interests identified in the M.G.L. c 131 section 40 and the Bylaw. Plantings within RA are only proposed in RA adjacent to Bridge 127 and 128. The remaining RA onsite will be stabilized with only a seed mix. Provide planting/landscaping plans depicting the approximate locations of the proposed plantings.

WPA40. Provide a revised description of the Project's compliance with 310 CMR 10.58(5)(f) that fully describes the areas that will be restored RA in-kind and areas that will be converted to different habitat.

VHB: This does not require a revised description. Please refer to the discussion in Section 5.1.8 of the NOI.

BETA2: See WPA32 and WPA37. Provide requested information.

Estimated Habitat of Rare Wildlife - 310 CMR 10.59

The Project has received two conditional approvals from the Natural Heritage and Endangered Species Program: one for the transmission line and one for the bikepath. The approval for the bikepath required that a turtle protection plan be submitted to NHESP for review and approval, while the turtle protection plan submitted by Eversource was approved by NHESP. In addition, TOY restrictions and construction signage are required for the Project to avoid a take of rare species and the Corridor Management Plan must be implemented as proposed to avoid a Take.

WPA41. Provide the Conservation Commission with a copy of the 5/31/2018 Corridor Management Plan for review and approval.

VHB: The Corridor Management Plan is included as an attachment to this submission.

BETA2: The DRAFT Corridor Management Plan submitted is dated 3/13/2020, while the plan reviewed and approved by NHESP was dated 5/31/2018. Has NHESP received and reviewed the current Corridor Management Plan, as required by their Conditional "No-Take" letter?

The submitted Corridor Management Plan does not discuss mowing restrictions within mapped Whip-poor-will habitat. The DRAFT Corridor Management Plan should include protections for this species.

WPA42. Provide the Project's NHESP Approved Turtle Protection Plan.

VHB: The Turtle Protection Plan is included as an attachment to this submission.

BETA2: The DRAFT Eastern Box Turtle Protection Plan submitted is not dated, while the plan reviewed and approved by NHESP for the transmission line in 2018 was dated 5/31/2018. Has NHESP received and reviewed the current version of the plan?

Provide the Conservation Commission with an update on the status and/or changes to items 1-3 of NHESP's conditional "No-Take" letter from 10/19/2018 for the transmission line and items 1-4 of NHESP's conditional "No-Take" letter from 5/17/2019 for the rail trail.

Wildlife Habitat Evaluations - 310 CMR 10.60

The NOI includes wildlife habitat evaluations along much of the Project corridor. The evaluation, however, does not address wildlife habitat fragmentation, duration of the construction period and its specific effects on documented wildlife habitat, or the duration of time between restoration activities and full compliance with the no-adverse effect standard. The evaluation also does not address the full scope of the existing habitat features along the corridor for an adequate comparison of proposed impacts to habitat features to features that will remain unaltered by construction. In addition, the Post-construction evaluations of the Appendix B say “See note below”, however, there are no notes below the “VI. Quantification Table for Important Habitat Characteristics.”

In addition, as previously discussed, the Wildlife Habitat Evaluations do not address the Vernal Pool Envelope or Critical Terrestrial habitat of the Vernal Pools that are extend within the ROW. These vernal pools are also not identified on the wildlife habitat evaluation forms.

WPA43. Provide an adequate analysis on the Project’s potential for wildlife habitat fragmentation.

VHB: An adequate analysis on the Project’s potential for wildlife habitat fragmentation has been presented in the Wildlife Habitat Evaluation (Attachment J) submitted with the NOI. As required at 310 CMR 10.60, a Detailed Wildlife Habitat Evaluation (“Appendix B”) was completed by a qualified individual for all state and local wetland resource impact areas associated with the Project. As outlined in the MassDEP guidance document, “Massachusetts Wildlife Habitat Protection Guidance for Inland Wetlands (2006), the potential for fragmentation is evaluated by completing an analysis of Landscape Context and Habitat Connectivity (refer to Part IV of the Appendix B: Detailed Wildlife Habitat Evaluation Form). Section 2.3 of the WHE outlines the methodology utilized to assess Landscape Context and Habitat Connectivity, Section 3.16 of the WHE provides a conclusion regarding Landscape Context and Habitat Connectivity, and each Appendix B form submitted for each proposed wetland impact area contains a completed Section IV for Landscape Context and Habitat Connectivity

BETA2: The NOI and supplemental information are not sufficient to describe the work or the effect of the work on the interests identified in the M.G.L. c 131 section 40 and the Bylaw. The WHE narrative for each impact area fails to provide a description of the area’s landscape context and impacts to connectivity. The only indication of the landscape context and habitat connectivity review is on the field data form.

BETA disagrees with VHB’s assessment of the Project’s impacts to habitat connectivity in WIA S7, S12, S14, S15, and S16 (see BETA – Table 1 Attached).

Provide the requested analysis.

WPA44. Conduct an evaluation of the entire Project locus in accordance with 310 CMR 10.60 and the Massachusetts Wildlife Habitat Protection Guidance for Inland Wetlands (DEP – March 2006), describing the quantity of habitat features onsite to remain undisturbed in comparison to the quantity of the features to be altered by project construction. This is required to confirm there will be no-adverse effect on wildlife habitat.

VHB: A Wildlife Habitat Evaluation (WHE) was conducted for the proposed Project in accordance with 310 CMR 10.60 and the Massachusetts Wildlife Habitat Protection Guidance for Inland Wetlands (DEP-March 2006). The characterization of important habitat features within the undisturbed portions of the entire Project Locus was completed by qualified wildlife biologists. Observations and conclusions made by these qualified individuals that the important wildlife

habitat features found within the proposed limits of work are also common and found in abundance in the undisturbed portions of the Project Locus are important, but do not serve as the sole basis for the “no adverse effect” conclusion for the Project. As outlined in detail in Sections 3 and 4 of the WHE, important habitat features identified within the proposed limits of work will be restored and replicated to achieve the “no adverse effect” standard. Please refer to pages 57 and 58 (Section 4) of the WHE for the restoration and mitigation measures proposed for important wildlife habitat features within the construction footprint.

BETA2: The NOI and supplemental information are not sufficient to describe the work or the effect of the work on the interests identified in the M.G.L. c 131 section 40 and the Bylaw. The WHE has not been completed in accordance with CMR 10.60 and the Massachusetts Wildlife Habitat Protection Guidance for Inland Wetlands (DEP WH Guidance – March 2006). Specifically,

- The WHE does not quantify the existing important wildlife habitat characteristics on the entire Site and no plan is provided identifying important wildlife features, as required by Section V.B.1.a. of the DEP WH Guidance¹⁶.
- Mitigation, such as wildlife-crossing tunnels where a site is shown to be a migration corridor for wildlife between vernal pools or other wetlands, should be considered in accordance with Section V.B.2.b.ii.¹⁷ of DEPs WH Guidance.
- The WHE does not demonstrate that the Project’s impacts on important habitat features will only occur on features that are very common on the Site, as required by Section V.B.2.b.iii¹⁸

The No Adverse Effect determination of WHE relies on the fact that important habitat features will be restored and/or replicated, however, adequate details describing the replication in accordance with Section V.C. 1 through 7 of the DEP WH Guidance are not provided. BETA disagrees with several findings presented in the WHE related to important habitat characteristics and the Project’s impacts on those characteristics, such as the presence of dense small trees and woody shrubs in WIA S11, which provide safe nesting sites and roosting locations for small song birds. The dense habitat restricts movement of larger predators. This habitat will not be replicated. See BETA - Table 1 attached for additional findings.

The WHE also fails to address the long-term effects of increased human activity on the trail and the potential for increasing human/wildlife interaction. Replicating habitat features along the trail,

¹⁶ DEP Wildlife Habitat Guidance Section V.B.1.a. – “Appendix A or B should be completed where required to identify important wildlife habitat features and activities on the site. Habitat Features and Activities should be described both in the form and on a project site plan. A narrative may also help describe the site.”

¹⁷ DEP Wildlife Habitat Guidance Section V.B.2.b.ii. – “Depending on the type of activity proposed and the characteristics of the site, it may be possible to avoid adverse effects through careful site design, restoration, replication (in accordance with 310 CMR 10.60 (3)) or other mitigation. Other types of mitigation may include a wildlife-crossing tunnel where a site is shown to be a migration corridor for wildlife between vernal pools or other wetlands. The more important the habitat features on a site or the larger the alteration, the more difficult it will be to meet this standard.”

¹⁸ DEP Wildlife Habitat Guidance Section V.B.2.b.iii. – “Applicants may show that alterations will have a negligible effect on important wildlife habitat functions in some circumstances. This may occur only when an above-threshold activity will alter an important habitat feature that is very common on the site, so that the amount of that habitat feature lost on the site is insignificant compared with the amount that remains. For example, a project may alter underwater branches and logs that provide important cover for wildlife, but do so in an area where the amount of cover that will remain on the site is sufficient to meet all wildlife needs. The impact can be considered insignificant only if an alteration would not substantially reduce the resource area’s capacity to provide important wildlife habitat functions.”

such as brush piles, will increase habitat used by raccoons, skunks, possums, and snakes.

Provide the requested information.

WPA45. Describe the wildlife habitat provided by resource areas proposed to be impacted by the Project and the capacity for the Site to maintain this function after construction completion.

VHB: This information has already been provided in Section 5 of the NOI and the WHE report in Attachment J. In addition, see any responses provided herein related to wildlife habitat for additional details.

BETA2: The NOI and supplemental information are not sufficient to describe the work or the effect of the work on the interests identified in the M.G.L. c 131 section 40 and the Bylaw. The WHE does not evaluate the resource areas individually and impacts to important wildlife habitat characteristics are not adequately quantified, therefore, the WHE submitted should not be used to confirm the Project will maintain the capacity for the Site to perform this function after construction completion.

WPA46. Provide the "Notes Below" as referenced in sections "VI. Quantification Table for Important Habitat Characteristics" included in the Wildlife Habitat Evaluation.

VHB: The "Notes Below" section on the forms were moved to the WHE narrative; all information is included in the WHE narrative.

BETA2: Understood. The WHE narrative does not quantify the existing important wildlife habitat characteristics on the entire Site or provide the change in important wildlife habitat characteristics following the construction of the Project, as required by a WHE to determine its effects on wildlife habitat. Accordingly, the NOI and supplemental information are not sufficient to describe the work or the effect of the work on the interests identified in the M.G.L. c 131 section 40 and the Bylaw.

SUDBURY WETLANDS PROTECTION ADMINISTRATION BYLAW

The following are the applicable Sudbury Wetland Protection Administration Bylaw and Regulations Provisions and Standards to the Project, and the Project's compliance with these standards:

SWB17. The Sudbury Wetlands Protection Bylaw and Regulations do not provide relief from meeting the local performance standards. Provide a detailed analysis of how the Project fully meets all performance standards under the local Bylaw and Regulations.

Isolated Vegetated Wetlands -Article XXII- Section 2:

The Project proposes to fill a 303 square foot IVW north of the Right of Way at Sta. 732+50 (Wetland 13). The purpose of the local Bylaw and Regulations are to prevent adverse effects on wetland values. The Bylaw wetland values provided by the IVW at this location are: protection of groundwater, flood control, wildlife habitat. No wildlife habitat evaluation was conducted specifically on this wetland to be filled, therefore compliance with the local performance standards at Section 7.3 and 7.8.2 cannot be determined.

SWB1. Provide a wildlife habitat evaluation for the IVW to be filled, in accordance with Section 7.4 of the Bylaw Regulations.

VHB: A WHE was completed for the IVW and is included within the discussion for Wetland Impact Area WIA 19 in the WHE included as Attachment J of the NOI.

BETA2: The NOI and supplemental information are not sufficient to describe the work or the effect of the work on the interests identified in the M.G.L. c 131 section 40 and the Bylaw. The WHE for

WIA S19 only mentions the impacts to the IVW but does not address if important habitat characteristics are provided by the IVW. A photograph of the IVW is not included in the photographs for WIA S19 in the WHE. Provide requested materials.

Erosion controls are proposed directly on the boundary of Wetland 26 (~Sta. 577+30). Installation and removal of these erosion controls may result in additional impacts to IVW.

SWB2. Relocate erosion controls to a distance where impacts to the IVW are not likely, otherwise, impacts to the IVW should be quantified and the area should be restored following construction completion.

VHB: All wetland resource area boundaries will be flagged in the field prior to the start of any construction, including the IVW, and an environmental monitor will be onsite during installation of the erosion controls. As currently designed, the erosion controls will not impact the IVW located near STA 577+30; therefore, there are no impacts to quantify.

BETA2: Recommend a Special Condition that requires staking the erosion control boundary by on-the-ground survey methodology for inspection by the Commission and/or their representative prior to installation of the erosion controls.

Cold Water Fisheries Resources – Regulations - Section 2.6:

Cold Water Fisheries Resources (CFR) are protected under the Bylaw. According to the NOI, eight (8) streams that may meet the Bylaw definition of a CFR are present along the Project corridor, while Hop Brook is the only CFR designated by the State. The Project proposes clearing between 5 and 80 feet of the potential CFRs along the Project corridor; accordingly, the Project will reduce the natural vegetative cover between the limit of work and the Bank of the CFRs. The area of clearing adjacent to the eight CFRs onsite has not been quantified or depicted on the Project Plans and the Applicant has not definitively demonstrated that the Project will not result in temporary or permanent impacts to the CFRs located along the Project corridor.

Based on the Project description and the description of compliance with the Sudbury Bylaw, the Applicant has not demonstrated compliance with the CFR Bylaw performance standards. Several of the CFRs flow parallel to the ROW, and the Project will result in on, or immediately adjacent to, the Banks of these areas. For example, clearing is proposed within 20 feet of the Bank to Dudley Brook for a length of 550 feet. Vegetation on the railroad embankment provides shade and overhanging vegetation to the stream, which will be removed by the Project. The Applicant has not definitively demonstrated that the Project will not result in temporary or permanent impacts to the eight (8) Bylaw CFRs located along the Project corridor.

SWB3. Quantify the area of proposed clearing within 80 feet of CFRs.

VHB: The area of proposed clearing within 80 feet of both MA and Sudbury Bylaw CFRs is provided below. It is important to note that the calculations were based on the existing overhanging canopy, and trees whose trunks are located outside of the limit of work will not be removed and will continue to provide shade to these waterbodies.

- Hop Brook at Station 400+30 (Bridge 128) – 14,319 square feet
- Intermittent stream at Station 527+30 – 3,966 square feet
- Dudley Brook at station 539+40 – 16,424 square feet
- Intermittent stream at station 561+82 – 4,992 square feet
- Intermittent stream at station 593+18 – 18,816 square feet
- Hop Brook at station 725+35 (Bridge 127) – 73,397

- **Tributary to Wash Brook at station 747+39 – 4,704 square feet**

BETA2: Areas quantified, except for impacts to the intermittent tributary to Hop Brook that runs parallel to the Project near Station Road. Quantify impacts to all eight bylaw CFRs.

The quantified clearing totals 136,618 square feet (3.1 acres) of clearing within 80 feet of CFR.

SWB4. Provide restoration details for areas to be cleared within 80 feet of CFRs that do not already have restoration proposed, for example at Sta. 540, 587, 603, 706+50, etc.

VHB: All areas except for the 10-foot-wide paved MCRT and the bike path shoulders will be restored with the native seed mix shown on Sheet 131 of the Eversource plans, which includes both woody shrubs and herbaceous species. The bike path shoulders will be restored with the herbaceous seed mix shown under Schedule A on Sheet 131 of the Eversource NOI plans.

BETA2: The NOI and supplemental information is not sufficient to describe the work or the effect of the work on the interests identified in the M.G.L. c 131 section 40 and the Bylaw. Use of a seed mix for restoration of greater than 3.1 acres of clearing within 80 feet of CFRs is not adequate to mitigate the impacts.

SWB5. Evaluate the impacts of clearing on the Bylaw-protected CFRs.

VHB: Sudbury that are considered CFRs under the Sudbury Bylaw only. All of these crossings are culverted beneath the railroad embankment and are therefore currently impacted. In addition, all of the crossings except for Dudley Brook are intermittent streams with dry stream beds during parts of the year, which do not provide fisheries habitat. Each crossing for the Bylaw-only CFRs was evaluated for potential impacts regarding removal of vegetation that could impact shading. All of the culverts extend beyond the proposed limit of work, and the limit of work within 80 feet of the crossings is primarily limited to the construction platform so vegetation on the side slopes will not be removed. Therefore, vegetation that is currently providing shading outside of the limit of work will be retained and no shading impacts to the Bylaw-only CFRs are anticipated. In addition, all areas except for the 10-foot-wide paved MCRT and bike path shoulders will be restored with the native seed mix shown on Sheet 131 of the Eversource plans, which includes both woody shrubs and herbaceous species. The bike path shoulders will be restored with the herbaceous seed mix shown under Schedule A on Sheet 131 of the Eversource NOI plans.

BETA2: The NOI and supplemental information is not sufficient to describe the work or the effect of the work on the interests identified in the M.G.L. c 131 section 40 and the Bylaw. The effects of canopy loss on water temperature for all CFRs (not just the “bylaw only” CFRs) must be evaluated, and compliance with section 2.6 of the local Regulations should be demonstrated for work at each stream individually. Currently, the project does not meet the Bylaw Regulations performance standards for CFRs.

The NOI states that, according to the Mass. Division of Fisheries and Wildlife (DFW), the clearing associated with the Project is not likely to have an effect on stream temperature of the state-designed CFRs, however, no evaluation by the DFW was conducted on the tributary streams. In addition, no written correspondence between the applicant and the DFW was provided to the Commission describing the DFW’s findings on the Project’s impacts to Hop Brook.

SWB6. Provide correspondence from DFW describing their findings on the Project’s impacts to the onsite CFRs.

VHB: The correspondence with Caleb Slater from DFW is included as an attachment to this submission.

BETA2: Correspondence with DFW is provided. In the correspondence, Mr. Vieira (VHB) states that netting will be placed below the bridges to prevent debris from falling into the brook. Provide a specification for the netting to be used under the bridges and include an installation detail for the netting. Also provide a note on the construction and bridge plans stating this requirement.

In the correspondence Dr. Slater (DFW) notes that areas along the brook should be replanted after construction completion and that the “removal of a few trees in the immediate area of the bridge” should not result in loss of shade for the stream. Dr. Slater’s evaluations only pertained to the state-designated CFRs, so his evaluation on impacts should also only be used in evaluating those streams.

The proposed clearing within 80 feet of the state-designated CFRs totals 106,532 sf (2.4 acres). The loss of this much vegetation constitutes more than the removal of a few trees.

Adjacent Upland Resource Areas – Regulations - Section 7.2:

The Bylaw protects Adjacent Upland Resource Areas (AURA) to protected wetlands. According to the NOI, 853,305 square feet of the ROW is within 100 feet of protected resource areas and 71% of this adjacent upland will remain unaltered by the Project, with 94,645 square feet being permanently altered (11% of the AURA onsite) and 153,519 square feet being temporarily altered. The application quantifies only the proposed paved areas within the AURA as permanent impacts, while areas that will be impacted from grading, duct bank installation, and continued maintenance are considered temporary.

Under Section 7.2 of the Bylaw, Commission can designate no-disturbance, temporary disturbance, and limited disturbance areas within the AURA to protect the functions the AURA is providing. Along the Project corridor, the AURA provides important wildlife habitat, habitat for rare species, upland habitat for vernal pool species, and water pollution prevention functions.

SWB7. *Quantify the permanent impacts to AURA from the Project including areas that will not be restored to the existing conditions.*

VHB: Section 5.2.3 of the NOI quantifies and discusses permanent and temporary impacts to AURA. As discussed in the response to Comment C2, all temporarily disturbed areas will be restored with native vegetation. The revegetation of the Project corridor outside of the proposed paved surface includes a variety of strategies, dependent upon proximity to the paved MCRT and the underground transmission line, proximity to perennial waterbodies, and proximity to Estimated/Priority Habitat for state-listed species. In addition, as discussed in the wildlife habitat evaluation, the Project also incorporates restoration of important wildlife habitat features such as standing dead trees, brush piles, and food plants. This proposed restoration will maintain or improve the functions of values that the AURA is currently providing, including wildlife habitat functions.

BETA2: The NOI and supplemental information is not sufficient to describe the work or the effect of the work on the interests identified in the M.G.L. c 131 section 40 and the Bylaw. Quantify the area of impacts to the AURA that will be stabilized with seed only.

Provide mitigation for the permanent impacts to the AURA as required by section 7.2 of the Sudbury Wetland Regulations. Restoration of the temporarily impacted area does not qualify as mitigation for the permanent impacts, as these measures are required to mitigate for the

temporary impacts.

Provide plans depicting the habitat restoration elements (dead trees, brush piles, food plants) proposed within the AURA on the Site.

Vernal Pools and AURA to Vernal Pools – Regulations- Section 2.2 and 7.2:

The Bylaw establishes the Commission’s jurisdiction over Adjacent Upland Resource Areas (AURA) to protect adjacent resource areas, including Vernal Pools. According to the Bylaw Regulations, the presence of Vernal Pool Habitat within wetlands can be used by the Commission to require additional areas of No Disturbance due to the significant habitat provided by of these areas. The Applicant has not demonstrated that the work will not result in impacts to Vernal Pools.

The Project proposes a March 1 to May 15 TOY restriction for work within 450 feet of a Vernal Pool. Migration to Vernal Pools can begin in February and migration out of Vernal Pools to upland areas can extend into mid-June.

SWB8. Demonstrate that the proposed TOY restriction is appropriate for the Vernal Pool Buffer Zone.

VHB: See response to Comments W24 and W26. Vernal pool migration is adequately protected through the implementation of a TOY restriction, the use of syncopated erosion control barriers, and through oversight by an environmental monitor during construction.

BETA2: The NOI and supplemental information is not sufficient to describe the work or the effect of the work on the interests identified in the M.G.L. c 131 section 40 and the Bylaw. Provide evidence that the proposed TOY restriction is adequate for protection for all Vernal Pool Species (not just mole salamanders).

SWB9. The Commission can consider requiring a No Disturbance Zone in proximity to the Vernal Pools located along the corridor

VHB: Please refer to Section 5.2.3 of the NOI for a detailed discussion on the proposed No Disturbance Zones in proximity to Vernal Pools along the corridor. In summary, the Project has been designed to avoid and minimize impacts to the area within 100 feet of vernal pools. The majority (68%) of the total Vernal Pool Buffer will be a No Disturbance Area, with no activities proposed.

BETA2: Regardless of whether 68% of the VP AURA will be protected, the Commission can still impose a No Disturbance Zone for the work. Work is proposed within 5 feet of the boundary of some Vernal Pools. The commission should consider requiring a greater separation between the limit of work and the VPs and require plantings to restore the AURA to VPs.

SWB10. Quantify the permanent impacts to Vernal Pool Buffer Zone that includes areas that will not be restored to the existing conditions under this Project proposal.

VHB: Table 1 on page 4 and Table 15 on page 73 of the NOI provides this information.

BETA2: The NOI and supplemental information is not sufficient to describe the work or the effect of the work on the interests identified in the M.G.L. c 131 section 40 and the Bylaw. Quantify the area of impacts to the VP AURA that will be stabilized with seed only. These measures are not adequate to restore the resource area functions and values in a foreseeable timeframe

Provide mitigation for the permanent impacts to the VP AURA as required by the local regulations.

SWB11. Update the Wildlife Habitat Evaluation to fully analyze the Project's effects on the Vernal Pool envelope and Critical Terrestrial Habitat area.

VHB: The Notice of Intent application has been filed under the Massachusetts Wetlands Protection Act (M.G.L. Chapter 131, Section 40), its implementing Regulations (310 CMR 10.00) and the Sudbury Wetlands Administration Bylaw and Regulations. As dictated by the MWPA Regulations and the Sudbury Wetlands Regulations, a Wildlife Habitat Evaluation (WHE) was conducted for the proposed Project in accordance with 310 CMR 10.60 and the Massachusetts Wildlife Habitat Protection Guidance for Inland Wetlands (DEP-March 2006). The WHE was submitted as Attachment J of the NOI.

Footnotes 3 and 4 on Page 5 of 27 of the BETA review letter dated May 11, 2020, refer to a USACE document for Vernal Pool Best Management Practices (January 2015). This document was a guidance document previously utilized by the USACE under the previous Massachusetts General Permit and which included the terminology for Vernal Pool Envelope (0-100 feet from depression) and the Critical Terrestrial Habitat area (100-750 feet from depression). The current Massachusetts General Permit issued by the USACE in April 2018 revised the compliance guidance for Vernal Pools (General Condition 23) to exclude the use of the Vernal Pool Best Management Practices document (January 2015). The terms Vernal Pool envelope and Critical Terrestrial Habitat are not regulatory terms found in either the MWPA, its implementing Regulations, or the Sudbury Wetland Bylaw/Regulations.

The WHE completed for the Project and submitted as Attachment J includes a full analysis of the proposed impacts from the Project within all Vernal Pool Buffers as defined under the MWPA and the local bylaw. In addition, Section 5.2.3 of the NOI provides a detailed narrative outlining regulatory compliance within the Vernal Pool Buffers in the Project Locus.

BETA2: The NOI and supplemental information is not sufficient to describe the work or the effect of the work on the interests identified in the M.G.L. c 131 section 40 and the Bylaw.

Regardless of whether the cited document is currently referenced in the USACE Mass. GP, the referenced document is still provided as guidance for avoiding and minimizing impacts to Vernal Pools. The guidance is based on scientific literature on habitat protection for vernal pool species and is applicable for use with respect to the Project.

The WHE does not evaluate the Project's impact on VP species' upland habitat and migration, which is critical to their lifecycle. For example, in WIA S19 there are three vernal pools in proximity to Station 745, however, in the evaluation of this WIA, there is no mention of vernal pools being present along the Project even though their boundaries are within 4 feet of the limit of work. Another example is in WIA S7, where the Site passes by four substantial VPs from Sta 407 to 416. The WHE for this area also fails to discuss the presence of the VPs or the Project's impact on the VP species upland habitat, migration pathways, and habitat connectivity.

Update the WHE to address the Project's indirect effects on the adjacent Vernal Pools, as required by Section 7.3 of the Bylaw regulations¹⁹.

¹⁹ Bylaw Regulations – Section 7.3:

Indirect impacts – the effects of human activities near wildlife habitat – can have equally harmful effects. For example, floodlights continuously illuminating feeding, nesting and movement areas can effectively deny those areas to wildlife. Depositing storm water runoff from paved surfaces can change the temperature of receiving waters (e.g., vernal pools). Therefore the Commission shall take into account indirect effects on a project by project basis.

Resource Replications – Section 7.8:

The Applicant provides an analysis of the Project’s compliance with the Bylaw Resource Replications Standards, however, not all standards are met. The Applicant is requesting a waiver from the requirement that the replication area be established before structures are constructed but then states the replication area will be constructed as part of the vegetation removal process, which is proposed prior to the construction of any structures in Phase 1.

SWB12. Provide clarification on why the Project requires a Waiver from the requirement that the replication area be constructed before construction of structures.

VHB: As stated within Section 5.2.5 of the NOI, the waiver is being requested from the Sudbury Bylaw requirements to allow the construction of the replication area during construction of Phase 1 of the Project.

BETA2: The NOI and supplemental information is not sufficient to describe the work or the effect of the work on the interests identified in the M.G.L. c 131 section 40 and the Bylaw. The NOI did not provide enough evidence to demonstrate that granting a waiver from this local provision is necessary, especially given the proposed construction sequence included in the NOI. Provide additional information.

The Applicant is also requesting a Waiver from the requirement that the original wetland soil must be transplanted with the soil structure intact. Based on a field inspection of the IVW impact area and BVW replication area, this waiver request is justified, however, the Applicant should still reproduce the soil profile within the replication area.

SWB13. Provide details for replicating the soil lamination and density profile within the replication area. Placement of 12 inches of compost is not adequate to replicate the soil profile.

VHB: As discussed within the Wetland Replication Report that was included as Attachment D, to avoid spreading invasive species via translocated soils, the Project proposes using a manmade soil mixture consisting of equal volumes of organic (compost) and mineral material such as rich loamy sand with a loose to friable consistency. For specific details on soil specifications, see Note 5 on Sheet 135 of the Eversource plans.

BETA2: The NOI and supplemental information is not sufficient to describe the work or the effect of the work on the interests identified in the M.G.L. c 131 section 40 and the Bylaw. The proposed soil replication strategy will only replicate the organic layer and does not address how the replication will replicate the density profile.

Provide existing soil lamination and density details for BVW and IVW that will be permanently altered.

SWB18. As confirmed through correspondence with the Conservation Commission, the “Resource Replication” provision of the Bylaw Regulations (Section 7.8) is intended to specify the performance standards for replicating all resource areas, including BLSF, RA and AURA. Provide replication of all permanent impacts to these resource areas accordance with the Section 7.8 performance standards.

At a minimum, the ratio of replication and restoration of resource areas to the permanent impact area must be 2:1, with the goal of restoring or replicating the functions of the permanently altered

resource area. Any restoration area must restore, but ideally improve, a resource area. This work should complement the vegetation work required to meet the limited project provisions.

Include a Special Condition requiring that restored temporary impact areas be established with at least 90% native species.

Wildlife Habitat – Regulations – Section 7.3

The Applicant states that much of the corridor will be restored upon Project completion and that the restoration areas should be equal to the replacement areas, however, a 19-foot-wide corridor along the Project will be maintained in perpetuity. Therefore, the replacement areas will not be equal to the area lost. To comply with the Bylaw standards at 7.3, for work to have no adverse effect, the work must not substantially impair an areas ability to provide wildlife habitat functions.

C9. *The abundance of wildlife habitat features located outside the ROW should not be substantially relied upon in the determination of whether the Project will have an adverse effect of the ability for the Project's to provide wildlife habitat.*

VHB: See the response to comment WPA44.

BETA2: The NOI and supplemental information is not sufficient to describe the work or the effect of the work on the interests identified in the M.G.L. c 131 section 40 and the Bylaw. The WHE does not provide an adequate quantification of important habitat characteristics within and outside the impact area to provide a determination of the Project's effect on wildlife habitat. As previously described, additional existing conditions information describing the existing wildlife habitat features within the Site locus are required to adequately quantify the Project's impact on wildlife habitat.

SWB14. *Provide an analysis of the Project's impacts on Town-defined CFRs.*

VHB: See the response to comment SWB5.

BETA2: The NOI and supplemental information is not sufficient to describe the work or the effect of the work on the interests identified in the M.G.L. c 131 section 40 and the Bylaw. The WHE does not address impacts to CFRs. For example, the Project proposes 18,816 square feet of clearing within 80 feet of Sta. 593+18, which falls within WIA S13. The narrative WHE for this area, however, does not mention the presence of the CFR or the effect the Project will have on the CFR.

Update the WHE to address the Project's indirect effects on the adjacent CFRs, as required by Section 7.3 of the Bylaw regulations.

SWB15. *Provide an analysis of the Project's impacts on Vernal Pools, the Vernal Pool Envelope and the CTH of Vernal Pools.*

VHB: See the response to comment SWB11.

BETA2: The NOI and supplemental information is not sufficient to describe the work or the effect of the work on the interests identified in the M.G.L. c 131 section 40 and the Bylaw. The WHE has not adequately evaluated the Project's impacts on Vernal Pools and their upland habitat. See SWB11 – BETA2.

SWB16. *Provide an analysis of the Project's impacts on BLSF, RA, Bank, LUW and AURA.*

VHB: See the responses to Comments WPA44 and WPA34. Section 5 of the NOI and the WHE report provided in Attachment J provides detailed summaries of the Project's impacts on all of

these state and local resource areas.

BETA2: The NOI and supplemental information is not sufficient to describe the work or the effect of the work on the interests identified in the M.G.L. c 131 section 40 and the Bylaw. The WHE provided combines the important habitat characteristics for the resource areas and does not discuss the impacts to habitat characteristics by individual resource area. Therefore, determining the Project's impact on the habitat characteristics of the individual resource areas (BLSF, RA, Bank, LUW, and AURA – as well as IVW and BVW) cannot be evaluated based on the WHE conducted.

Riverfront Area Protection – Regulations – Section 7.10

The Bylaw protects Riverfront Area of perennial and intermittent streams. According to the NOI, 252,729 square feet (5.8 acres) of the ROW has Riverfront Area as defined under the Bylaw. Of the total Bylaw RA on the site, 69% will remain unaltered by the Project, with 31,789 square feet (0.73 acres) being permanently altered (13% of the Bylaw RA onsite) and 46,707 square feet (1.07 acres) being temporarily altered. The application quantifies only the proposed paved areas within the bylaw as permanent impacts, while areas that will be impacted from grading, duct bank installation, and continued maintenance are considered temporary.

Under Section 7.10 of the Bylaw, the Commission protects Bylaw RAs with the same performance standards as AURAs, however, the protection extends 200 feet from the MAHW boundary. Along the Project corridor, the RA provides important wildlife habitat, habitat for rare species, upland habitat for vernal pool species, and water pollution prevention functions. The burden is on the Applicant to demonstrate that the Project meets the Bylaw Performance Standards.

SWB19. *The NOI and supplemental information is not sufficient to describe the work or the effect of the work on the interests identified in the M.G.L. c 131 section 40 and the Bylaw.*

Quantify the permanent impacts to Bylaw RA from the Project, including areas that will be stabilized with seed only.

Provide mitigation for the permanent impacts to Bylaw RA as required by Section 7.2 and 7.10 of the Sudbury Wetland Regulations. Stabilization of temporarily impacted Bylaw RA does not qualify as mitigation for the permanent impacts, as these measures are required to mitigate for the temporary impacts.

Provide plans depicting the habitat restoration elements (dead trees, brush piles, forage) proposed within the Bylaw RA on the Site.

STORMWATER MANAGEMENT

The project proposes stormwater management primarily through country drainage with some areas of the property improved with water quality swales and low points intended to function as infiltration basins. A catch basin is proposed near station 531 to convey flows to a 2' deep surface basin near station 534. Existing culverts used to convey flows between wetland areas and/or streams will generally be retained. Otherwise, stormwater from the proposed trail will flow, unmanaged, onto the surrounding areas to the north and south.

VHB: The Applicants are reviewing BETA's comments on stormwater management issues (SW1 through SW51) and responses will be provided in a separate submission as soon as possible.

BETA2: The responses will be reviewed when submitted.

BRIDGE CONSTRUCTION IMPACTS

The project includes work on two existing bridges over Hop Brook.

Work associated with former Bridge 128 (station 400+10 to 400+55) approximately 1680 feet west of Dutton Road includes the replacement of the timber deck (12 feet wide by 43± feet long). Work areas include steel sheeting and crane mats, 85'x40' on west side and 95'x40' on the east side.

Work associated with former Bridge 127 (station 725+9 to 725+60) approximately 1350± feet east of Boston Post Road includes the replacement of the timber deck (12 feet wide by 43± feet long). Work areas include steel sheeting and crane mats, 85'x40' on west side and 95'x40' on the east side.

The crane mat detail indicates that timber cribbing will be installed at 20 feet from the centerline and the plans indicate that this is the limit of work and there are no additional impacts beyond the 20 feet.

- B1. *Confirm that there will not be any additional disturbance or impacts to resource areas outside the crane mat footprint.*

VHB: See the response to Comment WPA6.

- B2. *Recommend that a condition be included that requires a detailed plan for the construction of the crane mat.*

VHB: See the response to Comment WPA6.

- B3. *Include temporary impacts associated with cutting timber piles. Recommend removing timber piles 2 feet below mud line.*

VHB: The timber piles are being cut at the mud line by divers to minimize impacts to Land Under Water Bodies and Waterways and no permanent or temporary impacts are anticipated. Requiring the piles to be cut 2 feet below the mud line would require excavating the riverbed to get access to the piles. This would increase the impact area and would have the potential to cause turbidity in the flowing water from the excavation and backfilling.

BETA2: See Comment WPA29 – BETA2.

- B4. *Recommend utilizing both erosion control type C options at bridgework areas.*

VHB: See the response to Comment WPA25.

BETA2: These comments (B1, B2, and B4) will be addressed during the BETA's Engineering review of the revised and supplemental stormwater materials.

SUMMARY

Based on our technical review of the supplemental information submitted, the Applicant has not provided sufficient information to describe the site, the work and the effect of the work on the interests identified in the Act and Bylaw. Therefore, the Conservation Commission can not issue an Order of Conditions approving the work. BETA Group, Inc. will be at the August 13, 2020 public hearing of the Sudbury Conservation Commission to answer any questions regarding our comments

If we can be of any further assistance regarding this matter, please contact us at our office.

Very truly yours,
BETA Group, Inc.



Laura Krause
Project Scientist



Marta J. Nover
Vice President

CC: O:\7100s\7130 - Sudbury - Transmission Line\Engineering\Reports\2020-7-24 Second Performance Standards Review\Sudbury-Hudson
Transmission Peer Review Draft 8.7.2020.docx

Peer Review - Sudbury-Hudson Transmission Reliability and Mass Central Rail Trail Project
BETA – Table 1: Wildlife Habitat Evaluation Review by Wetland Impact Area (WIA)

WIA	COMMENTS	RECOMMENDATIONS
S1	<ul style="list-style-type: none"> • Work site, removal of ground cover/brush piles and resulting bike path will restrict movement between vernal pool and neighboring wetland where amphibians will seek cover in late summer through early winter. <ul style="list-style-type: none"> ○ Proposed restoration includes herbaceous cover in seed mix but does not include replacing woody debris with brush piles. • Large Woody Debris” habitat not listed on Field data form but appear in photo log. • Restoration includes planting of low-bush blueberry 	<ul style="list-style-type: none"> • Restore important habitat features present in S1 • Revise WHE to include all important habitat features present within WIA. • Provide planting plan, plant number, and habitat feature locations. • Quantify important habitat features on the Site, and within impact area to demonstrate the Project’s effect on the Site’s ability to protect wildlife habitat.
S2	<ul style="list-style-type: none"> • Vernal pool far enough away to not be directly impacted. • Work site restricts migration to nearby wetland. • Impact area does not include important habitat features aside from upland food plants which will be replaced with black huckleberry plantings. 	<ul style="list-style-type: none"> • Provide planting plan and plant number for restoration area. • Quantify important habitat features on the Site, and within impact area to demonstrate the Project’s effect on the Site’s ability to protect wildlife habitat.
S3, S4, S5, S6	<ul style="list-style-type: none"> • Attachment K detailing standing deadwood replacement does not provide adequate details on how this will be accomplished, especially with sensitive and unstable wetland soils. • The adverse effects analysis considers all areas together. VHB determined that an insignificant percentage of important habitat will be affected, however losses to standing vegetation with view of water in areas 3 and 6 may be just a small percentage while areas 4 and 5 will be clear-cut. • Almost 50% of the total square footage of S4 and S5 will be cleared, and they will not recover quickly. • Location for crane mats must be cleared and flattened which is potentially destructive as wetland habitat is very sensitive to changes in elevation, slope, and soil compaction. 	<ul style="list-style-type: none"> • Revise WHE to evaluate each impact area separately. • Quantify important habitat features on the Site, and within impact area to demonstrate the Project’s effect on the Site’s ability to protect wildlife habitat. • Conduct WHE by resource area to confirm restoration efforts proposed in each resource area are adequate to result in a no-adverse effect. • Provide adequate details on the replacement of standing dead tree installation and proposed locations.
S7	<ul style="list-style-type: none"> • The work site is within the buffer zone of 5 different wetlands/ vernal pools yet only AURA is considered. • While the berm on each side of the rail will contain runoff from the site, and grading will not extend past this berm, the Project will completely sperate the southern wetland from surrounding wetlands, contributing to habitat fragmentation. 	<ul style="list-style-type: none"> • Evaluate the effect of the bike path construction on the southern wetland’s connectivity to adjacent wetlands. • Quantify important habitat features on the Site, and within impact area to demonstrate the Project’s effect on the Site’s ability to protect wildlife habitat.

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	<ul style="list-style-type: none"> Existing berms on either side of work area and proposed bike path create a barrier that restricts the movement of amphibians between wetlands. <ul style="list-style-type: none"> Southern wetland fragmented from larger wetland by original rail bed, clearing ground cover and adding bike path will create additional obstacles further isolating southern wetland. Possible solution to this is building a tunnel under the bike path to prevent possible flooding and serve as a wildlife crossing for more sensitive species. 	<ul style="list-style-type: none"> Evaluate the use of wildlife tunnels to mitigate for fragmentation.
S8	<ul style="list-style-type: none"> Large number of standing dead trees to be replaced, still unsure of how/ where they will be replaced. Significant invasive species present. If site is cleared and replaced with low herbaceous/ woody vegetation, then invasive species will outcompete and become dominant. 	<ul style="list-style-type: none"> Quantify important habitat features on the Site, and within impact area to demonstrate the Project’s effect on the Site’s ability to protect wildlife habitat. Provide site and species-specific invasive species controls plan.
S9	<ul style="list-style-type: none"> Culvert connecting north and south end of stream may allow for some wildlife movement between north and south sections of wetland. This does not discuss impacts from possibly cleaning/replacing culverts if they have become blocked or damaged. Large number of standing dead trees similar to S8 Invasive species similar to S8 	<ul style="list-style-type: none"> Quantify important habitat features on the Site, and within impact area to demonstrate the Project’s effect on the Site’s ability to protect wildlife habitat. Provide site and species-specific invasive species controls plan. Evaluate the use of the culvert for wildlife migration and potential for culvert improvements to mitigate impacts to migration.
S10	<ul style="list-style-type: none"> Culvert similar to S9 Invasive species similar to S8 	<ul style="list-style-type: none"> Quantify important habitat features on the Site, and within impact area to demonstrate the Project’s effect on the Site’s ability to protect wildlife habitat. Provide site and species-specific invasive species controls plan. Evaluate the use of the culvert for wildlife migration and potential for culvert improvements to mitigate impacts to migration.
S11	<ul style="list-style-type: none"> Based on species present, work site will be removing a significant amount of early successional forest habitat; dense small trees and wooded shrubs, which will not be directly replaced. This dense vegetation restricts movement of larger predators providing safe nesting and roosting locations for small songbirds, and small mammals on the ground. 	<ul style="list-style-type: none"> Quantify important habitat features on the Site, and within impact area to demonstrate the Project’s effect on the Site’s ability to protect wildlife habitat. Provide site and species-specific invasive species controls plan.

Peer Review - Sudbury-Hudson Transmission Reliability and Mass Central Rail Trail Project
BETA – Table 1: Wildlife Habitat Evaluation Review by Wetland Impact Area (WIA)

	<ul style="list-style-type: none"> • Adequate information not provided to determine if the surrounding vegetation is consistent with the vegetation present in the limit of work. • Culvert similar to S9 • Invasive species similar to S8 	<ul style="list-style-type: none"> • Evaluate the use of the culvert for wildlife migration and potential for culvert improvements to mitigate impacts to migration. • Evaluate impacts to songbird and small mammal habitat.
S12	<ul style="list-style-type: none"> • Culvert similar to S9 • Surrounding wetlands fragmented from human activity so presence of large persistent populations of wildlife species is unlikely. • Project will remove a large amount of dense vegetation that provides cover by local wildlife as they travel through the more developed and heavily populated area. This will not be replaced by current proposed restoration. • Several invasive species present like previous sections. 	<ul style="list-style-type: none"> • Quantify important habitat features on the Site, and within impact area to demonstrate the Project’s effect on the Site’s ability to protect wildlife habitat. • Evaluate the use of the culvert for wildlife migration and potential for culvert improvements to mitigate impacts to migration. • Evaluate impacts to wildlife cover habitat present within impact area. • Provide site and species-specific invasive species controls plan.
S13	<ul style="list-style-type: none"> • Work area is near an already well-developed area and is largely comprised of invasive species. • Considering the larger section of forest and wetland north of the site, the loss of habitat in this section will not likely have a significant impact on the surrounding habitat. • Project site would benefit from the addition of brush piles and replanting native vegetation in place of removed invasive species as proposed in the restoration plan. 	<ul style="list-style-type: none"> • Quantify important habitat features on the Site, and within impact area to demonstrate the Project’s effect on the Site’s ability to protect wildlife habitat. • Provide site and species-specific invasive species controls plan.
S14	<ul style="list-style-type: none"> • Impact area is small and surrounded by human development and a road. Similar to S13 there is likely little direct impact on the habitat of the area as a whole. • This area is one of the few spots that wildlife can cross Union Ave with relative cover. • Project may restrict movement of wildlife between the forested area surrounding wetlands 24 and 24A and the eastern habitat areas east of Route 20.. 	<ul style="list-style-type: none"> • Quantify important habitat features on the Site, and within impact area to demonstrate the Project’s effect on the Site’s ability to protect wildlife habitat. • Evaluate the Project’s impact on wildlife migration and fragmentation at this location.
S15	<ul style="list-style-type: none"> • This impact area provides the only access through this heavily developed area. • Provides cover for wildlife to cross both Union Ave and Boston Post road. • Trees and vegetation will be removed from a large stretch of land removing cover for wildlife. Restoration plan details replacing snags and plant food 	<ul style="list-style-type: none"> • Quantify important habitat features on the Site, and within impact area to demonstrate the Project’s effect on the Site’s ability to protect wildlife habitat. • Evaluate the Project’s impact on wildlife migration and fragmentation at this location.

Peer Review - Sudbury-Hudson Transmission Reliability and Mass Central Rail Trail Project
BETA – Table 1: Wildlife Habitat Evaluation Review by Wetland Impact Area (WIA)

	shrubs, but not larger tree cover needed to replicate the existing cover for larger animals that may use this corridor.	<ul style="list-style-type: none"> • Provide restoration plans to replicate the existing habitat features.
S16	<ul style="list-style-type: none"> • Area similar to S15 provides only corridor for wildlife in surrounding area, though area is larger, and more vegetation cover will remain for wildlife to utilize. • Included pictures do not show nearby wetland. unable to evaluate wetland habitat based on information provided. • Areas S16, S17, S18 and S19 are all evaluated together, however S16 and S19 are very large sections that encompass several different hydrological features over a large area, this evaluation focuses on the section of these areas closest to the river crossing. • Evaluation tends to group resources together, such as total standing dead trees, instead of standing dead trees bordering riverfront (open water), and standing dead trees within bordering wooded swamp, which provide shelter for different species. 	<ul style="list-style-type: none"> • Revise WHE to evaluate each impact area separately. • Quantify important habitat features on the Site, and within impact area to demonstrate the Project’s effect on the Site’s ability to protect wildlife habitat. • Conduct WHE by resource area to confirm restoration efforts proposed in each resource area are adequate to result in a no-adverse effect. • Provide adequate details on the restoration plan.
S17, S18	<ul style="list-style-type: none"> • Standing woody vegetation in S17 is being removed and not replaced based on proposed restoration plan. • S18 is mostly herbaceous ground cover which will be replaced. • Construction activities such as grading, and installation of crane mats will likely alter and impact surrounding wetlands/ waterways beyond limits of work. 	<ul style="list-style-type: none"> • Quantify important habitat features on the Site, and within impact area to demonstrate the Project’s effect on the Site’s ability to protect wildlife habitat. • See recommendations for S16.
S19	<ul style="list-style-type: none"> • Similar to S16, impact area is large with many different resource areas all being evaluated together, though the focus of this evaluation is on the bridge construction • Permanent disturbance to vegetated wetland is listed on the plans and yet this habitat resource is not adequately evaluated. Restoration for this impact is grouped with restoration of BVW in S20. Evaluation not adequate to determine the Project’s effect on the resource area. • Photos provided do not include extensive vegetated wetlands surrounding work area or the IVW to impacted, so VHBs findings cannot be confirmed. 	<ul style="list-style-type: none"> • Quantify important habitat features on the Site, and within impact area to demonstrate the Project’s effect on the Site’s ability to protect wildlife habitat. • See recommendations for S16. • Evaluate the wildlife habitat characteristics of the vegetated wetland to be filled.
S20	<ul style="list-style-type: none"> • Culvert under railway may provide wildlife migration corridor for species between north and south section of wetland. • VHB noted trash/ refuse within this area, which can create sources of pollution when disturbed to install the transmission line. • Additional information is required to determine if the proposed wetland replication area meets the performance standards. 	<ul style="list-style-type: none"> • Evaluate the potential for culvert improvements to mitigate impacts to migration. • Quantify important habitat features on the Site, and within impact area to demonstrate the Project’s effect on the Site’s ability to protect wildlife habitat.

**Peer Review - Sudbury-Hudson Transmission Reliability and Mass Central Rail Trail Project
 BETA – Table 1: Wildlife Habitat Evaluation Review by Wetland Impact Area (WIA)**

	<ul style="list-style-type: none"> • The replication area is small and separated from larger wetland by the construction area and bike path. Extending the culvert in this location will decrease the openness and may further hinder species migration • Significant amount of dense early successional vegetation will be removed and not replaced. Not sure if this is significant to surrounding area based on photos provided. 	
S21	<ul style="list-style-type: none"> • Impact area is small and previously disturbed so impact will not be significant as it makes up a small percentage of habitat in the surrounding area. 	<ul style="list-style-type: none"> • Quantify important habitat features on the Site, and within impact area to demonstrate the Project's effect on the Site's ability to protect wildlife habitat.