October 15, 2020

Ref: 12970.00/11424.00

Sudbury Conservation Commission
275 Old Lancaster Road
Sudbury, MA 01776

Re: Supplemental Submission
Applicants' Response to BETA Peer Review Comment Letter Dated August 7, 2020, rev. 8/11/20
Sudbury-Hudson Transmission Reliability and Mass Central Rail Trail Project
DEP File No. 301-1287

Sudbury Conservation Commission Members,

The Applicants, the Massachusetts Department of Conservation and Recreation ("DCR") and NSTAR Electric Company d/b/a Eversource Energy ("Eversource"), are providing this response to additional comments provided by BETA in a letter dated August 7, 2020, as revised August 11, 2020. The entire comment history, including BETA's initial comments from May 11, 2020, VHB's responses from June 25, 2020, along with our responses to BETA's recent comments, is presented below. BETA's initial comments are presented in bold text with letter and number indicators, the Applicants' prior responses are presented in italicized text with indicator "VHB," BETA's additional comments are presented in bold text with the indicator "BETA2," and the Applicants' latest responses are presented in plain text with the indicator "VHB2."

The following bullets present a summary of key topics raised in the BETA review letter for which the Applicants have provided additional clarification and/or supplemental information for the Commission's review and consideration:

- Project-Specific Compliance Manual: The Applicants recognize the importance of developing a single project-specific document with all the relevant details for environmental compliance that can be used by the Contractor, Environmental Inspectors, and the Conservation Commission to ensure the Project will be constructed as designed and in compliance with all permit conditions. Therefore, this submission contains several references to the Applicants' commitment to develop this document, which will include:
    - Site Staging and Parking
    - Signage/Limit of Boundaries
    - Avoidance and Minimization
    - Erosion and Sediment Controls

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- Rare Species Habitat and Vernal Pools
- Site access
- Slope Excavation
- Vegetation Removal and Preservation
- Construction Material along the Right-of-Way
- Winter Construction
- Dust Control and Soil Stockpile Management
- Maintenance of E&S Controls, Wetland Restoration, Vehicle Storage, and Spills
- Restoration and Post-Construction Inspection and Maintenance

- Supplemental Vernal Pool Buffer Analysis (Attachment A): The supplemental analysis demonstrates that the Project will not have any adverse effect on the ability of existing vernal pools to continue to function. In summary, 85-95% of the existing suitable habitat around all vernal pools will remain following completion of the Project, except Vernal Pool 7 (just west of Peakham Road) where approximately 82% of the existing suitable habitat will remain at Vernal Pool 7 following construction of the Project.
- Supplemental Wildlife Habitat Evaluation Details (Attachment B): This supplemental table (Table 1) provides a summary of the responses that have been presented to each of BETA's comments and suggestions for each Wetland Impact Area. This table also organizes information from the WHE into a stand-alone summary table for each Wetland Impact Area (Tables 2 to 22) to demonstrate No Adverse Effect for each WIA. As part of this submission, VHB has provided more details for Vernal Pool Buffers and Landscape Context and Habitat Continuity. Lastly, VHB has quantified important wildlife features outside of the proposed limits of work as well as on the Project Site, as per the DEP WHE Guidance. Based on this quantification, the Applicants no longer propose to re-install removed snags as part of this Project.
- Updated Crane Mat Details (Attachment C): These details were updated to provide specific elevations of the limits of wetland resource area jurisdiction where mats are proposed to be placed to match the proposed restoration details provided. These updated details demonstrate that the Project will result in proper restoration of all temporarily disturbed wetland resources at the proposed crane mat locations.
- Supplemental Coldwater Fisheries Compliance Analysis: Responses to comments SWB3, SWB4, and SWB5 provide a supplemental analysis of how the Project will comply with the applicable performance standards in the Sudbury Bylaw and Regulations related to Cold Water Fisheries Resources.
- Updated AURA Mitigation: The Applicants have completed an evaluation of potential additional mitigation for temporary impacts to AURA, in accordance with the local bylaw and regulations performance standards.
- As outlined in the response to SWB7, the Applicants have also prepared a comprehensive mitigation proposal for the Commission that includes the following:

- Removing approximately 41,382 square feet (0.95 acres) of common reed (*Phragmites australis*) from the upstream side of Hop Brook at the Bridge 128 crossing;
- Removing approximately 2,178 square feet of Japanese knotweed (*Polygonum cuspidatum*) within RFA, BLSF, and AURA between STA 712+00 and 713+00;
- Planting supplemental vegetation along vernal pool margins where appropriate; and
- Removing refuse within the ROW and outside of the limit of work where such refuse can be removed without machinery and without impacts to wetland resource areas.

General

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

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.

BETA2: The "area of increased infiltration" more closely resembles a grass channel with check dams. The check dams slow water velocity but do not hold water. Infiltration cannot be guaranteed therefore no infiltration credit.

VHB2: Compost topsoil is to be placed over and within the void space of the check dam crushed stone. Because the void space is filled, stormwater will be detained upstream of the check dam until infiltrated or overtopped during major events.

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.

VHB2: Soil boring logs, groundwater monitoring data, and analytical reports were provided. There is no need to determine vertical or horizontal extent of potential contamination. The ROW is not a Chapter 21E site, and as described in the VHB response above, the Project can be conducted without any increased risk to human health or the environment, including any of the interests under the WPA and the Bylaw. In addition, a member of the environmental monitoring team will be present during construction and appropriate measures will be in place per the SGMP to respond to any unanticipated soil or groundwater conditions.

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.

VHB2: Proposed work associated with any of the culverts and drainage pipes along the Project was presented in Table 4 of the NOI filing. In summary, none of the culverts (existing conveyances for jurisdictional streams) require replacement to facilitate construction of the Project. As indicated in BETA2, the existing culverts and drainage pipes provide some opportunity for smaller species of wildlife to move through the area. All of the culverts and drain pipes that function as connections for wildlife migration now will continue to provide this same function during and following construction of the Project as they will remain intact or be replaced with a pipe of the same or slightly larger size. Many of these culverts and drainage pipes contribute to the existing hydrology in the Project area and features such as vernal pools have formed around some of them. The Applicants considered improvements to existing culvert openness and drainage pipe enlargement as one potential option for mitigation under the local bylaw but dismissed this mitigation approach as it would involve additional impacts to wetland resource areas and could adversely affect the existing hydrology of vernal pool areas. The Applicants have selected other mitigation options for the Project that result in an improvement to existing wetland resources areas, rather than additional impacts to wetlands.

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.

VHB2: Eversource would not object to a Special Condition requiring that a Partial Certificate of Compliance (COC) should be requested at completion of Phase 1 (Transmission Line construction).

Wetlands and Resource Area Impact Summary

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 Standards.

VHB2: 310 CMR 10.57(4)(a) states, "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* (emphasis added), 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)."

As demonstrated in Table 11 of the NOI, BLSF cut and fill amounts were quantified and compensated for on an incremental basis within the same stream reach and elevation. The Hop Brook tributary from STA 703+00 to 710+75 is a stream reach and was calculated separately, and the section of Hop Brook from STA 722+50 to 730+00 is a stream reach that was calculated separately. In addition, as shown in Table 11 and as discussed in Section 5.1.7 of the NOI, the Project results in a total **net gain** of 78.36 cubic yards of flood storage in Sudbury, which is greater than a 2:1 ratio of compensatory flood storage for the overall Project. The table below slightly reconfigures the information in Table 11 for further clarity. The first stream reach (tributary to Hop Brook) results in a net gain of 6.11 cubic yards of compensatory flood storage and the second stream reach (Hop Brook from STA 722+50 to 730+00) results in a net gain of 72.25 cubic yards of compensatory flood storage. In addition to the table below, the cross sections that were provided in the Eversource NOI plans include all BLSF cut (green) and fill (red) locations with the BLSF elevations.

Hop Brook Tributary along Station Road (Sta 703+00 to 710+75)			
Elevation	Fill Volume (CY)	Cut Volume (CY)	Net Change (CY)
133'-134'	17.30	-20.81	-3.51
132' - 133'	7.80	-9.37	-1.57
131'-132'	0.04	-1.07	-1.03
Totals	25.14	-31.25	-6.11
Hop Brook Crossing (Sta 722+50 to 730+00)			
Elevation	Fill Volume (CY)	Cut Volume (CY)	Net Change (CY)
126'-127'	10.89	-21.02	-10.13
125'-126'	15.70	-75.41	-59.71
124'-125'	2.70	-5.11	-2.41
123'-124'	0.00	-0.09	-0.09
Totals	29.29	-101.63	-72.36
Project Totals	**54.43**	**-132.89**	**-78.48**

Source: VHB

- Indicates a cut (net gain) of compensatory flood storage

[Continuation of BETA1] 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 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.

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.

VHB2: The Applicant has repeatedly provided sufficient information to the Commission to demonstrate that the proposed Project qualifies for review under the Limited Project provisions at 310 CMR 10.53(3)(d), 310 CMR 10.53(6), and 310 CMR 10.53(8). Section 5.1.1 of the Notice of

Intent filed in March 2020 provided a detailed compliance discussion related to Limited Project status, with additional information submitted in supplemental submissions filed on June 25 and August 7, 2020.

With respect to contours, the Project 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.

Based upon input received from the Commission, the Applicants completed a detailed evaluation to determine whether additional supplemental woody plantings could be installed along the Project alignment to enhance the revegetation of temporarily disturbed areas within Conservation Commission jurisdiction. The available space for supplemental plantings is limited by the narrow Project footprint, within which: 1) the area over the duct bank is not suitable for planting, 2) areas within 4 feet of the bike path pavement must be maintained for safe clearance from branch hazards for trail users, and 3) long, narrow areas would result in linear plantings that are generally not consistent with the Commission's request for a natural landscape.

As a result of this evaluation, the Applicants updated the proposed restoration plan to include an additional 1,336 plantings at 23 locations along the Project. Details regarding these plantings were provided in Response to Comment #33 in the August 7, 2020 letter submitted by VHB.

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.**

   BETA2: VHB provided no response.

   VHB2: Acknowledged. The Applicants have presented sufficient information in the NOI filing and in supplemental submissions, including this submission, to demonstrate how important wildlife habitat features were evaluated and how the Project will be constructed to have no adverse effect on the ability of wetland resource areas to continue to provide wildlife habitat function following construction of the Project.

3. **Impacts to Vernal Pools, and the surrounding "Vernal Pool Envelope" and "critical terrestrial habitat (CTH)" 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.**

   BETA2: VHB provided no response.

   VHB2: The Applicants responded to these concerns in response to other comments throughout this letter.

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.

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: During the Conservation Commission meeting there was discussion about requiring full compliance with the Massachusetts Stormwater Standards for these combined projects. To

determine what that may look like, BETA took a closer look at the design. For long linear projects the Standards "allows MassHighway to recharge additional runoff at certain locations along a portion of the highway within a subwatershed to compensate for sections of the roadway in the same subwatershed where it may be difficult to recharge the entire required recharge volume". BETA also notes that the project predominately utilizes country drainage. The Standards allow for credit for "disconnection of non-rooftop runoff".

BETA reviewed each watershed that did not currently include BMPs for recharge and treatment of runoff and developed the attached Watershed Worksheets. Based on where the watershed is located and where runoff would be directed, BETA developed a priority list for recommended inclusion of additional BMPs. Areas where the work is located within a stormwater critical area (Zone 2, vernal pool and cold-water fishery) were classified as high priority. Medium priority was assigned to work areas that would drain to non-critical wetland resource areas. Low priority was assigned to areas that did not include new impervious area and/or where country drainage "credit" is sufficient.

The general restriction of BMPs within buffer zones of vernal pools is predominately so that organisms will not relocate from the vernal pool to the BMP. An infiltration trench is a simple BMP that could be installed that will not attract vernal pool organisms while providing recharge and treatment of runoff in this critical area.

VHB2: The Applicants have no additional response beyond what has been stated. The post-construction condition of this Project is the rail trail, which is identified in the regulations as a project that needs to comply to the maximum extent practicable and which DEP acknowledged in their comment on Eversource's Final Environmental Impact Report ("FEIR") dated September 7, 2018 ("As the MCRT path will be paved, it will be required to meet stormwater management standards under 310 CMR 10.05(6)(k) of the Wetlands Protection Act Regulations. Bike paths, footpaths, bikepaths and other paths for pedestrian and/or non-motorized vehicle access are required to meet the stormwater management standards to the maximum extent practicable (MEP)."). Please also see the response to SW8.

Construction Impacts / Mitigation

Vegetation Clearing

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.

VHB2: The Applicants can agree to this recommended special condition.

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.

VHB2: The NOI narrative does not need to be revised. The ROW conditions provide adequate space to support the equipment needed to perform this work. If necessary, based on site conditions, vegetation will be moved to a location on the ROW where chipping will occur. A special condition can be included in the OOC to require that all vegetation will be chipped directly into a truck and removed from the Project Site.

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.

VHB2: Please refer to original response. In addition, it is important to note that the Applicants assumed that vertical clearing of up to 60 feet would be required along the entire length of the Project within the limits of work and as such the impact of the vertical clearing is conservatively represented and evaluated in the NOI filing. The vegetation clearing that was calculated for the Project was conservative and assumed that all canopy within the limits of work, regardless of

location and height, will be removed. Since canopy will only be removed in select locations on as needed basis, the actual impacts will be lower than those contained in the filing.

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.

VHB2: Trees that have trunks and root systems outside of the proposed limits of work but have limbs and canopies that extend over the proposed limits of work will be assessed on an individual basis to determine the appropriate course of action to facilitate safe construction of the Project. Emphasis will be on retaining the tree if possible and only trimming those portions that overhang the work area and which impede safe operation of construction equipment. In some instances, it may be necessary to cut the entire tree down at the base and leave the root systems intact. However, the vegetation clearing that was calculated for the Project was conservative and assumed that all canopy within the limits of work will be removed, regardless of location and height and even if the trunk was located outside of the proposed limits of work.

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.

VHB2: Sufficient information has been provided to detail how invasive species will be managed during the initial vegetation clearing, including how the contractor will avoid seed dispersion. Also, a Project-specific Compliance Manual will be prepared for the Project and will include

information on invasive species management. This manual can be provided to the Commission prior to the start of construction.

In addition to the control measures stated in the initial response, the environmental monitor will monitor for invasive species during each phase of construction and will remove by hand any invasive species that are germinating. Once construction is complete, DCR is responsible for long-term invasive species management, as described in their Corridor Management Plan.

Sedimentation and Erosion Control

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.

VHB2: The final SWPPP will address all required NPDES Construction General Permit Conditions. The Applicants can agree to a special condition requiring the review but not approval of the SWPPP prior to construction. The Applicants can also agree to a special condition requiring that they notify the Conservation Commission when changes are made to the SWPPP.

In accordance with 310 CMR 10.05(6)(k)(8), the type and location of the erosion controls are shown on the Eversource and DCR NOI plans. As stated within the responses to SWB2, the Applicants can agree to a special condition stating that the Commission or its Agent will review the staked limits of work prior to the installation of erosion controls.

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 at 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.

VHB2: Removing and reinstalling the erosion controls between Phases 1 and 2 is unwarranted and could potentially result in detrimental impact to an adjacent wetland resource area. Our suggested condition allows for removal of erosion controls after Phase 1 is completed *if the area fully stabilizes* before Phase 2 is started. In addition, the Commission or their Agent would get the opportunity to review these areas prior to removal of erosion controls. To properly function, erosion controls should be installed and left in place and maintained until disturbed areas upgradient of wetland resource areas have fully stabilized. Mandatory removal and reinstallation of these erosion controls will result in the destabilization of areas that have been restored and are trending towards successful revegetation, since the silt fence has to be trenched into the ground. Again, it is standard practice to install erosion control barriers once to establish limits of work and, to provide effective protection of adjacent resource areas, to maintain it throughout the entire construction phase. Eversource will be responsible for maintaining the erosion control barriers

and performing weekly inspections along the Project following the completion of Phase 1 and up until the commencement of Phase 2.

As an alternative, if erosion controls need to be replaced once Phase 2 starts, and the Phase 1 disturbed areas are fully stabilized with vegetation, the erosion controls will be replaced at the grading limit of work for the Phase 2 Project. If the existing erosion controls are not in need of replacement they will be left in their current location.

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.

VHB2: The Applicants disagree with removing and reinstalling the erosion controls for Phase 2 work. See VHB2 response to Comment W9.

In addition, the statement that erosion controls are a barrier to wildlife migration is inaccurate. Erosion controls will not be established along the entire length of the Project (see plans for locations of controls) and wildlife will be able to migrate over or around the controls. Also, syncopated silt fence will be installed within 450 feet of vernal pools to allow those species to migrate to and from vernal pools during their active season.

Construction Staging, Access, and Grading

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.

VHB2: The limits of work shown on the Project Plans submitted for the Project are sufficient to provide any turnaround locations for equipment within the limits of work. As for any project, if the proposed limits of work require revision after an Order of Conditions is issued by the Commission, the Applicants will work with the Commission and their representative to determine if changes are minor in nature or if they are more substantial and require the submission of a Request for an Amended Order of Conditions. The permanent grading beyond the limits of manholes is required to provide both adequate installation and maintenance of the manholes. The Applicant has presented revised plans (August 7, 2020 submission) that include supplemental woody plantings in areas of permanent grading around the proposed manholes.

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.

VHB2: The NOI and supplemental submissions do in fact include the location of the contractor access points and laydown areas. As previously stated, construction crews will access and exit the Project Site at public ways (i.e., road crossings) and all laydown areas will be outside of the Commission's jurisdiction (see VHB2 response to W12 below).

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.

VHB2: The general construction sequence is provided in Section 3 of the NOI. The Project will be constructed in segments (e.g., from road crossing to road crossing) using multiple crews working multiple segments concurrently and, in some segments, there could be multiple crews working from each road crossing as well. The Project's schedule and construction sequence will also adhere to all applicable time of year restrictions (TOYRs).

The following bullets outline the sequencing to be employed during Phase 1 of the Project:

- Limits of work established via land survey with clear visible markings or fencing placed in the field;
- Vegetation will then be removed with no grubbing of any root systems at this time;
- Next, all erosion controls will be installed and inspected as appropriate, and then rails and ties will be removed;
- Then all grading and grubbing/stumping will be completed including installation of stormwater features and establishment of the 14-foot wide gravel base. If the segment includes bridge replacement or rehabilitation, the work at the bridges will take place during this step of Phase 1;
- Immediately following, the underground transmission line will be installed with manholes installed first and then the duct bank between manholes; and
- Immediately following installation of the transmission line, disturbed areas will be loamed and seeded and/or planted.

It is anticipated that once work starts in a segment it will continue until the gravel base is installed and disturbed areas are loamed, seeded, and planted.

A detailed construction schedule by segment will be developed once a contractor is brought onto the Project. The Applicants can agree to a special condition in the Order of Conditions requiring them to provide the construction schedule prior to construction. In addition, both Applicants will have full-time community outreach personnel who will be in constant communication with local officials with regard to specific scheduling details and progress. There will be various forms of communication with the public notifying them of the construction schedule, progress, and details.

Access to each section of the ROW will be via public ways as follows:

- Areas west of Dutton Road will be accessed via White Pond Road (Hudson) and/or Dutton Road
- Areas between Dutton Road and Peakham Road will be accessed via Dutton Road and/or Peakham Road

- Access to areas between Peakham Road and Horse Pond Road will be accessed via Peakham Road and/or Horse Pond Road
- Areas between Horse Pond Road and Union Avenue will be accessed via Horse Pond Road and Union Avenue
- Areas between Union Avenue and Boston Post Road will be accessed via Union Avenue and Boston Post Road
- Areas between Boston Post Road and the Sudbury Substation will be accessed via Boston Post Road and/or the substation access driveway

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.

VHB2: What was described in the Applicants' prior response reflects what was stated in the NOI and SWPPP; these descriptions do not need to be revised. Any stumping or grubbing that is required will be completed within the limit of work. The Applicants can agree to a special condition that stumping and grubbing will not adversely affect woody vegetation or soils outside 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.

VHB2: [This is a new comment added by BETA.] The Best Management Practices Manual submitted with the NOI is Eversource's standard BMP guidance for all projects. However, project-specific plans dictate what components are to be used during construction, and the plans for this Project state that straw will be used. Hay will not be used on the Project Site. In addition, a Project-specific Compliance Manual will be developed that will include the erosion controls to be used, and it will state that straw, not hay, will be used.

Dewatering

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.

VHB2: It is not possible to predict where dewatering will be necessary or to identify specific discharge locations because it is based on field and weather conditions at the time of construction. However, the Applicants have described the standard methodologies that are available and the general dewatering methodology that will be implemented during construction to prevent adverse impacts to resource areas. In summary, there will be a prohibition on dewatering locations in proximity to vegetated wetlands and all dewatering will include appropriate physical measures to filter sediment from water pumped from excavations, slow down velocity of discharge to eliminate potential for erosion, and promote infiltration back to the local groundwater table. Also refer to response to W17 below.

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.

VHB2: There is no need to treat groundwater for chemical constituents prior to discharge. The Applicants' due diligence indicated that there is no basis to anticipate that contamination in groundwater within the ROW will be encountered at levels that would be preclude immediate recharge in the same vicinity. All groundwater to be discharged will receive some sort of "treatment" for the removal of sediment.

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.

VHB2: If dewatering is necessary, water will not be discharged directly into any waterbodies, BVW, Isolated Vegetated Wetlands, or inner 100' of RFA. The Applicants would not object to a special condition requiring that the Commission be notified in advance if dewatering is required within jurisdictional areas and that they may inspect the work site before dewatering commences if such inspection can occur within 24 hours of notification.

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.

VHB2: If dewatering is required at this location, it will be completed using one of the methodologies previously discussed. As previously stated, all dewatering will occur within the limit of work, and this location is no different than any other.

Crane/Timber Mat Installation

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.

VHB2: The Applicants can agree to the recommended special condition that the Applicants' contractors certify that the crane mats were cleaned and are free of invasive species prior to placement and removal off-site. A certification form to be used for this purpose will be provided in the Project Compliance Manual.

Contaminated Materials

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.

VHB2: As indicated previously, MassDEP confirmed that the Rail Trail Guidance is applicable to the entire Project, including transmission line installation within the MBTA ROW, in their comment on Eversource's FEIR. Full erosion controls and sedimentation prevention techniques will be implemented during excavation, grading, and soil management.

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.

VHB2: Specific stockpile locations cannot be identified at this time, but they will be located in specified areas as described above in the initial VHB response and all stockpiles will be managed with appropriate controls to prevent erosion and sedimentation. The weekly reports prepared by the Environmental Monitors throughout construction will identify the locations of active stockpiles and will confirm that the appropriate erosion control measures are being implemented. The Commission and its agent will have authority under the Order of Conditions to conduct inspections of stockpiles at any time throughout construction.

Time of Year Restrictions

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.

VHB2: The TOY restriction period agreed to by the Applicants (March 1 through June 1) is applicable to other amphibian species that may breed in vernal pool habitat. The earliest moving amphibian in New England is the wood frog (*Lithobates sylvatica*) and documented movement prior to March 1 is extremely rare. DeGraaf and Yamasaki (2001) identify immigration to breeding sites beginning in March and lasting 4 to 6 days. In a study by Paton and Crouch (2002) on breeding phenology of pool-breeding amphibians in southern Rhode Island, approximately 1-2%

of the total adult wood frogs immigrating to the breeding pools occurred during the last week in February and all immigration was completed by mid-March with immigration peaking in early March. Other work conducted in southern Rhode Island by Paton et. al. (2000) found that amphibians immigrated to the pond primarily from early March through May. Klemens (1990) also observed wood frog activity in Connecticut on two occasions in February, but most activity was in March with the earliest breeding choruses and/or wood frogs observed in breeding pools documented on March 2. In addition, a TOY restriction for vernal pool amphibians beginning in March is widely accepted for this region as sufficiently protecting migrating adults. The March 1 through June 1 TOY restriction, in combination with the syncopated silt fence and oversight by an environmental monitor, will sufficiently protect the migration period for adult amphibians and will ensure the continued viability of vernal pools to function.

References

Paton, P., S. Stevens and L. Longo. 2000. Seasonal Phenology of Amphibian Breeding and Recruitment at a Pond in Rhode Island. Northeastern Naturalist Vol. 7, No. 3 (2000), pp. 255-269

Paton, P. and W.B. Crouch. 2002. Using the Phenology of Pond-Breeding Amphibians to Develop Conservation Strategies. Conservation Biology Vol. 16, No. 1. Pp. 194-204.

DeGraff, R.M. and M. Yamasaki. 2001. New England wildlife: habitat, natural history, and distribution. University Press of new England, Hanover, NH.

Klemens, M.W. 1993. Amphibians and reptiles of Connecticut and adjacent regions. State Geological and Natural History Survey of Connecticut, Bulletin No. 112.

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.

VHB2: The Applicants could remove and reinstall erosion controls within the vernal pool critical areas to outside the TOY restrictions; however, we are concerned that this special condition could

result in the removal of the effective erosion control barrier adjacent to these areas before disturbed areas can completely revegetate and stabilize to the 90% cover of native vegetation suggested in another comment. This approach has the potential to result in a release of sediment from these disturbed but not yet stabilized slopes that could adversely affect the vernal pool during a rain event. In addition, the silt fence must be trenched into the ground and installation, removal, and reinstallation would result in disturbance within areas that have already begun to stabilize. It is standard practice to install erosion control barriers once to establish limits of work and, to provide effective protection of adjacent resource areas, to maintain them throughout the construction phase, and then remove them once disturbed areas have fully stabilized. The syncopated silt fence is proposed to allow for effective wildlife movement through the area for the duration of the construction phase, while simultaneously providing the erosion control function adjacent to the vernal pools.

The Applicant is committed to completing the Project in a manner that ensures these vernal pools maintain their viability and productivity both during construction and operation of the Project. We suggest and would accept a special condition that requires areas adjacent to vernal pools to be revegetated immediately following the completion of grading in these areas, these areas to be monitored, and erosion controls removed as soon as field conditions allow.

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 be 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.

VHB2: The Applicants cannot agree to a special condition restricting vehicle/equipment movement during the vernal pool TOY restrictions. The issue of access/egress and turnaround locations is provided in response to Comment W12, which sufficiently describes the work on the interests identified in M.G.L. c 131 Section 40 and the Bylaw.

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".**

VHB2: The intent of the figures is to show each TOY restriction area within the Project Site. Any on-site equipment storage locations and soil management areas, if needed, will be within the identified limit of work and all impacts have been quantified. Accordingly, the Project sufficiently describes the effect of the work on the interests identified in M.G.L. c 131 Section 40 and the Sudbury Bylaw. As has been previously stated, access/egress from the site will be from public roads; see the VHB2 response to Comment W12 for additional information. The notes on each individual figure clearly state the TOY restriction or guideline, which provides the information to determine when work is allowed.

The eastern box turtle timeframes are guidelines, *not restrictions*, and the Eastern Box Turtle Protection Plan, which was reviewed and approved by NHESP in their no-take determination, does not limit construction from November 1 and March 31. The Eastern Box Turtle Protection Plan states, "Prior to daily work activities within rare turtle habitat between April 1 and November 1, a

VHB qualified environmental monitor(s) will visibly search (sweep) access roads, work areas, and areas adjacent to these areas for rare turtles." The notes in the TOYR figures were updated to accurately reflect the language in the Eastern Box Turtle Protection Plan and are included as an attachment to this supplemental submission (Attachment D). The figures were also revised to state "no construction" where appropriate.

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.

VHB2: A tentative construction schedule has not been developed because the start of construction is contingent upon receiving the permits and selecting a contractor. The construction schedule will be established once a contractor has been selected, a contract has been awarded, and a construction commencement date can be established. The schedule will adhere to the TOY restrictions. Eversource will provide the Conservation Agent with a copy of the schedule prior to the start of construction along with updates to the schedule, if any, during the performance of the work. However, the Project is committed to adhering to all TOY restrictions during construction and when the approximate 20-month construction duration for Phase 1 construction was developed, it considered all TOY restrictions.

Corridor Restoration and Invasive Species Management

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.

VHB2: This will be provided. A final DCR plan set incorporating all revisions will be prepared once the Commission is ready to issue an Order. That plan set will include the revisions to the planting list and will be stamped and dated for reference in the Order.

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.

VHB2: The locations of plantings proposed within Priority and Estimated Habitat is shown on the revised sheets 102-106 in the Eversource NOI plans attached to this submission (Attachment C). In addition to these plantings, this area will also be loamed and seeded with the woody and herbaceous seed mixes and will be substantially restored as required by the Limited Project performance standards. As shown throughout the Eversource and DCR plan sets, all areas outside of the 10-foot-paved bike path will receive 4 inches of loam and seed.

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.

VHB2: Based upon a field review (July 24, 2020) of the Project area west of Bridge 128, it has been confirmed that use of loam and seed is appropriate within the RFA/AURA in this area. The cover type adjacent to the Project Site is forested with a vegetated understory. Although the native soil may have a high sand content, use of loam and seed for the shoulders to develop vegetated grass shoulders in this area will be consistent with the adjacent vegetated community.

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.

VHB2: The Applicants can agree to this recommended special condition.

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.

VHB2: As previously stated, fertilizers will not be used, and the Applicants can agree to a special condition prohibiting the use of fertilizers within jurisdictional areas. A Project-specific

Compliance Manual will be developed, which will include a statement that fertilizers will not be used. The manual can be provided to the Commission prior to the start of construction.

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 maybe 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.

VHB2: See the initial VHB response and VHB2 response to Comment W5, which addresses invasive species management during construction.

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.

VHB2: The Applicants are not seeking approval of chemical control methods at this time. The Applicants can accept the following special condition that was included in Hudson's OOC:

> *DCR shall notify the Commission in advance if herbicides are to be used for vegetation control within wetland jurisdictional areas, indicating the target control species, the type(s) of herbicide to be used, and the on-going maintenance plan for the targeted area. This Condition is ongoing and does not expire with the expiration of the Order of Conditions or the issuance of a Certificate of Compliance.*

Massachusetts Wetlands Protect Act Compliance

Limited Project Provisions

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.

VHB2: See the VHB2 response to the BETA2 comment under Comment C2 above.

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.

VHB2: The NOI and supplemental information, including this submission, sufficiently describe the work. The NOI discusses all wetland resource area impacts and compliance with performance standards for both phases of the Project.

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.

VHB2: The comment was addressed. DCR and Eversource completed the Project design in a joint effort, using the same engineering firm (VHB) to ensure that the Project could be designed within the smallest limits of work possible while meeting all applicable standards for both the transmission line and the bike path. Eversource will complete all major grading for the Project, including for stormwater features for DCR's MCRT, and will develop a 14-foot gravel base for DCR to install a 10-foot-wide paved pathway with 2-foot vegetated shoulders. Permanent impacts in RFA are associated only with the 10-foot paved pathway, as all other areas will be revegetated.

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.

VHB2: The MCRT does not qualify as a limited project where it passes through Riverfront Area that also is Bordering Land Subject to Flooding. The initial VHB response provided this

information. Permanent impacts associated with the MCRT have been presented and are associated with the paved portion of the MCRT only. All other areas will be revegetated with native vegetation.

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.

VHB2: The evaluation of potential for downstream flooding, stream stability, impacts to wetlands, and the potential to effect property and infrastructure has been performed. All wetland impacts were quantified and provided in the NOI. In accordance with standard practice, the no-rise certification would be provided prior to construction. However, to address the comment, a no-rise certificate has been prepared and is attached to this supplemental submission (Attachment E).

Inland Bank

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.

VHB2: Revised crane mat cross-sections for each bridge that show existing topography are attached to this supplemental submission (Attachment C).

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 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.

VHB2: Revised crane mat cross-sections for Bridge 127 are attached to this supplemental submission (Attachment C). As shown in the sections, the mats will be set into the existing slope (including the Bank), which will support the slope and ensure that it remains stable during bridge work. Once the mats are no longer needed, the slope will be restored to pre-construction elevations and stabilized with jute mesh erosion control blankets. Within the wetland, a wetland seed mix will be used and aquatic plugs will be planted within LUWW as shown on Sheet 125. Upslope of the wetland, the disturbed area will be seeded with the mix specified in Planting Schedule A on Sheet 161 and planted with additional trees and shrubs as shown on Sheet 125. These measures will ensure the proposed work will not impair the physical stability of the Bank in accordance with 310 CMR 10.54(4)(a)(1).

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.

VHB2: Existing conditions, temporary conditions, and restoration details at the Bank impact locations are shown on sheets 155 and 160.

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.

VHB2: While the area of temporary placement of crane mats will cumulatively be more than 50 feet, the work will not materially diminish the overall capacity of the Bank to provide important wildlife habitat functions (e.g., breeding habitat, escape cover and food for fisheries). The Project is no longer proposing to reinstall "standing dead trees."

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.

VHB2: The seed mix is appropriate. The seed mix proposed includes both upland and wetland species, and all species are on Sudbury's Native Plant List. As provided in the supplemental submission dated August 7, 2020, additional planting of woody vegetation is proposed where feasible within Bank and Buffer Zone.

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.

VHB2: Trees will be removed in accordance with the vegetation removal description provided in the NOI. Stumps will only be removed as necessary to ensure crane mats are stable. Please refer to the updated crane mat cross sections attached to this submission (Attachment C).

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.

VHB2: Installing snags would require use of construction machinery and would require excavation. The Applicants have performed additional field surveys for existing snags to supplement the Wildlife Habitat Evaluation completed for the Project. While completing the WHE, the field wildlife biologist counted all snags within the jurisdictional areas within the proposed limits of work and made observations about the relative abundance of snags outside of limits of work and within wetland jurisdictional areas on the remainder of the Project Site. To supplement these observations and to demonstrate that there is an abundance of snags remaining on the Project Site outside the proposed limits of work, the Applicants have counted and located all snags within both the proposed limits of work and on the remainder of the Project Site in jurisdictional areas. There are at total of 227 snags within the Project Site (i.e., both within limits of work and outside of limits of work) within wetland resource areas in Sudbury. Of this total, 78 are located within the proposed limits of work, while the remaining 149 are outside of these limits. Therefore, 66% of the existing snags in wetland resource areas within the Project Site in Sudbury will remain. This information demonstrates that the proposed Project will not substantially reduce the capacity of the site to provide the important wildlife habitat functions that dead standing snags offer. Given this information and considering the concerns raised about the potential difficulties associated with reinstalling removed snags, and to avoid creating a hazard in the proximity of the rail trail, the Applicants no longer propose to reinstall removed snags as part of this Project.

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.

VHB2: Please refer to response to WPA 12.

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.

VHB2: Revised crane mat cross sections are attached to this supplemental response (Attachment C). As shown therein, the crane mats do not require a "level surface" at the bottom of the slope for placement of the outermost set of cribbing. The cribbing will begin above the Bank boundary at both approaches to Bridge 128 and will not result in Bank impacts.

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.

VHB2: As shown on the Bridge 128 Key Plan as well as on Sheet 47 of the construction plans, all proposed work is located above the delineated Bank. In addition, the revised crane mat cross sections attached to this supplemental response (Attachment C) also show that the limit of the crane mats is located upslope from the BVW and Bank elevations. There will be no additional impacts to Bank.

Bordering Vegetated Wetlands

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.

VHB2: The measures described in Eversource's BMP Manual are standard practices and would apply for all temporary BVW impact areas. The Order of Conditions for the Project would supplement or supersede these practices.

To avoid compaction, heavy mechanical equipment (exerting a ground pressure of 3 psi or greater) will not be allowed in restored areas. No soil will be stockpiled. If the topsoil needs to be supplemented for restoration, 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 will be used to avoid reintroducing any invasive species that may be present in the native soil.

Once any additional soil (if needed) is placed, plantings will be installed in accordance with the plans. Following woody plantings, the area will be seeded with a native wetland seed mix as specified in the planting schedule.

The Applicants can agree to a Special Condition requiring that the areas of temporary BVW impact be monitored for two full growing seasons after planting, with inspections twice a year to assess whether the areas have achieved 90% cover by native species. Any invasive species that appear within the restoration areas will be removed by hand for two growing seasons after restoration planting. If necessary, these areas will be reseeded with a native wetland seed mix.

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 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.

VHB2: The MWPA does not require that BVWs be restored to the same wetland class. There are three areas of temporary BVW impact in Sudbury; below is a summary of the amount of temporary impact at each location and the proposed vegetative restoration, which are discussed below:

- Station 713+57 to 713+69 (headwall installation):
  - 27 square feet of temporary impact
  - Proposed vegetative restoration: Native wetland seed mix (see sheet 167 for seed mix details)
- Station 724+33 to 726+36 (crane mats at Bridge 127):
  - 296 square feet of temporary impact
  - Proposed vegetative restoration: Native seed mix (see Planting Schedule A on sheet 161) and supplemental tree and shrub plantings (see sheet 125 for details)
- Station 764+57 to 764+65 (extension of existing drainage pipe and creation of wetland replication area):
  - 201 square feet of temporary impact
  - Proposed vegetative restoration: Native wetland seed mix and supplemental shrub and herbaceous plantings (see sheet 167)

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.

VHB2: The seed mix originally proposed was specifically chosen to contain both upland and wetland-appropriate species. However, as described in WPA17, the seed mix for temporary BVW restoration has been revised to use the same seed mix as the wetland replication area.

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.

VHB2: Revised crane mat cross sections showing existing topography are attached to this supplemental submission (Attachment C).

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.

VHB2: Please see the initial VHB response.

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.

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).

VHB2: As noted in the wetland replication report, the existing wetland is an excavated channel/drainage ditch with abrupt and clearly defined slopes that currently holds approximately 12 inches of standing water with no wetland vegetation in the center of the channel and a small fringe of vegetation at the south end of the channel. Vegetation in the wetland currently includes silky dogwood (*Swida amomum*) and sensitive fern (*Onoclea sensibilis*), and in the surrounding disturbed upland there are a few mature trees and several vines and shrubs including red maple (*Acer rubrum*), silky dogwood, glossy buckthorn (*Frangula alnus*), Oriental bittersweet (*Celastrus orbiculatus*), fox grape (*Vitis labrusca*), and multiflora rose (*Rosa multiflora*). The ditch does not currently provide much function other than groundwater recharge/discharge and floodflow alteration. The proposed replication area will similarly include standing water with a vegetated edge, and will have greater storage capacity. The replication area will include the same species that are currently present (red maple and silky dogwood) and will improve wildlife habitat by adding four more species of herbaceous and shrub plantings: buttonbush (*Cephalanthus occidentalis*), arrow arum (*Peltandra virginica*), giant bur-reed (*Sparganium eurycarpum*), and sweet pepperbush (*Clethra alnifolia*). The Project will also remove the invasive species that are currently in the proposed replication area.

The Project proposes to excavate the existing wetland in order to extend the existing pipe and maintain the current hydrology while expanding the wetland area. The wetland replication plan has been updated to make this clear. Any dewatering that is required will be conducted in the area on the plan marked as "TEMPORARY WORKSPACE."

The Project does not propose to replace and expand the existing pipe because the existing vernal pool to the north has developed based on the existing conditions, and replacing the pipe to increase the openness would require excavation within the vernal pool (the northern end is currently buried under the vernal pool) and would likely change the vernal pool hydrology.

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.

VHB2: The NOI sufficiently describes the work **and** the effect of the work on the interests identified in the M.G.L. c 131 section 40 and the Bylaw. Additional information for invasive species management has been provided in the VHB2 responses to Comments W5 and W36.

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.

VHB2: The Applicants can agree to monitoring the replication area for invasive species until 90% native cover is achieved and a Certificate of Compliance is issued. The Applicants will not agree to a special condition requiring them to monitor areas outside of the replication area and/or limit of work for invasive species or for a period of up to five years if 90% native cover is achieved before that time.

Land Under Water

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.

VHB2: Please refer to the response to WPA16 for details. As described in that response the low gradient flow areas of this wetland resource area will be fully restored.

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

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.

VHB2: Please refer to the VHB responses in WPA24 and WPA16 for details.

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.

VHB2: The material to be used to secure the blankets must be consistent with the manufacturer's specifications to ensure a secure installation and may include staples, stakes, or pins.

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.

VHB2: The Best Management Practices Manual submitted with the NOI is Eversource's standard BMP guidance for all projects. However, project-specific plans dictate what is used during construction, and the plans for this Project state that straw will be used. Hay will not be used on the Project Site. In addition, a Project-specific Compliance Manual will be developed which will include the erosion controls that will be used, and it will state that straw, not hay, will be used. The Project Compliance Manual will also include the BVW restoration procedure for all temporarily impacted BVW. This Compliance Manual can be provided to the Commission prior to the start of construction.

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.

VHB2: The proposed revegetation within LUW is 136 aquatic plugs, which is the appropriate restoration technique. The species and number of aquatic plugs were included on sheet 135 of the Eversource NOI plans that were submitted to BETA and the Commission on August 7, 2020 (sheet 125 of the latest set attached to this submission). If conditions are appropriate, the area will be seeded with the wetland replication seed mix shown on sheet 167 of this submission.

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.

VHB2: Certified divers will cut the existing timber piles at the mud line by hand to avoid sediment suspension. The use of divers to cut the existing piles at the mud line is the most effective way to ensure that there is no prolonged increase in turbidity in the waterbody. Work will be scheduled and completed during low flow conditions.

By cutting the existing timbers at the mud line and maintaining a uniform water column, the Project will not alter the public's access to or free passage over and through this waterbody, including the ability to float on, swim in, or otherwise move freely within the water column.

Bordering Land Subject to Flooding

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.

VHB2: The cut/fill volumes provided in Table 11 were calculated by reach. The Hop Brook tributary from STA 703+00 to 710+75 is a stream reach and was calculated separately, and the section of Hop Brook from STA 722+50 to 730+00 is a different stream reach that was calculated separately. For additional information, see the VHB2 response to Comment C1.

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.

VHB2: As described in the response to Comment W33 in the response letter dated August 7, 2020, additional areas were evaluated for supplemental plantings and updated planting plans were provided to the Commission and BETA. The available space for supplemental plantings is limited by the narrow Project footprint, within which: 1) the area over the duct bank is not suitable for planting, 2) areas within 4 feet of the bike path pavement generally must be avoided to maintain safe clearance from branch hazards for trail users, and 3) long narrow areas would result in linear plantings that are not consistent with the Commission's goal of a natural landscape. The updated plans identify the supplemental planting locations, including details prescribing the species, spacing, and number of plantings of each species proposed for each area. In addition to the plantings within BLSF at Bridge 128 and Bridge 127, two additional areas of planting within BLSF were identified. Planting area S9 is located at approximately Station 706+50 and has approximately 283 square feet of supplemental shrub plantings within BLSF. Planting area S14 is located at approximately 722+50 and has approximately 68 square feet of supplemental shrub plantings in BLSF. No other areas within BLSF were identified as suitable for supplemental shrub plantings.

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.

VHB2: Section 5.17 of the NOI provides an accurate account of the permanent and temporary BLSF impacts 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. Supplemental and detailed information specifically related to wildlife habitat related performance standards is included in this submission.

WPA34. Provide an updated wildlife habitat evaluation the accurately describes the projects 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.

VHB2: Section IVB of the Wildlife Habitat Evaluation Guidance states, "Appendix B comprises a detailed wildlife habitat evaluation that includes a summary sheet for the identification of *resource areas present within the impact area*" (emphasis added), not evaluation of the impact area on a resource area by resource area basis. The Guidance and Appendix B Detailed WHE Form also only require quantification of certain important wildlife habitat features including snags, tree cavities, and trees larger than 30-inch DBH, while requiring a qualitative evaluation (i.e., absent, present, abundant) for any other features. The features that were required to be quantified were evaluated in that manner, and the other features were evaluated qualitatively. The WHE submitted for the Project followed this guidance and evaluated all WIAs for the presence of important wildlife habitat features, including those within BLSF. Based on the results of the WHE, appropriate restoration and mitigation were identified, which includes restoration plantings. For details on the restoration plantings, see the VHB2 response to Comment WPA32 and the Eversource plans submitted to the Commission on August 7, 2020.

It was determined that the Project would not result in an adverse effect to any WIAs, and therefore there will not be an adverse effect to important wildlife habitat features within BLSF or any other wetland resource area. For additional information, refer to the detailed summary tables attached to this supplemental submission (Attachment B).

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.

VHB2: As stated within the VHB2 response to Comment WPA32, two additional areas of plantings are proposed within BLSF; no other suitable areas within BLSF were identified. See the response to WPA32 for additional information. As indicated in the Plant Maintenance Notes on the planting

plans, the contractor will be responsible for watering during the growing season whenever natural rainfall is below one inch per week for one year following planting. Watering will be applied thoroughly enough to saturate the soil in seeded areas and in the root zone of each planted tree and shrub. The Applicants have also presented details regarding the monitoring and removal of invasive plant species within all restored areas through construction and into the operation and maintenance phase of the Project. Regarding the concern expressed that this restoration plan does not have a likelihood for success, the Applicants will accept a Special Condition that 90% of the restored areas within the Commission's jurisdiction will revegetate with 90% native species within two growing seasons and the areas have to be revegetated and stabilized to comply with SWPPP requirements.

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, 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.

VHB2: As stated within the initial response and within Section 1.1.1.2 of the WHE, all BLSF impact areas were evaluated and this citation had no bearing on the WHE, including the no adverse effect determination.

Riverfront 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.

VHB2: The Wetland Regulations at 310 CMR 10.00 do not contain the term "previously degraded." As noted in the BETA2 comment and as stated at 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." As per this definition, all areas within the proposed limits of work qualify as previously developed Riverfront Area.

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.

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.

VHB2: Based upon input received from the Commission, the Applicants completed a detailed evaluation to determine whether additional supplemental woody plantings could be installed along the Project alignment to enhance the revegetation of temporarily disturbed areas. The available space for supplemental plantings is limited by the narrow Project footprint, within which: 1) the area over the duct bank is not suitable for planting, 2) areas within 4 feet of the bike path pavement must be maintained for safe clearance from branch hazards for trail users, and 3) long narrow areas would result in linear plantings that are generally not consistent with the Commission's goal of a natural landscape.

As a result of this evaluation, the Applicants updated the proposed restoration plan to include an additional 1,336 plantings at 23 locations along the Project alignment. Details regarding these plantings were provided in Response to Comment #33 in the August 7, 2020, letter submitted by VHB.

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).

VHB2: The Wetland Regulations at 310 CMR 10.00 do not contain the term "previously degraded." The redevelopment standard at 310 CMR 10.58(5) allows projects to be constructed in previously developed riverfront area, provided the proposed work improves existing conditions. The NOI and supplemental submissions have demonstrated compliance with the applicable performance standards at 310 CMR 10.58(5) to show that the project will improve existing conditions within previously developed RFA associated with the existing rail bed.

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.

VHB2: Revised planting/landscaping plans were provided to the Commission and BETA on August 7, 2020, which included additional shrub plantings within RFA. See the VHB2 response to Comment W33 for additional information.

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.

VHB2: 310 CMR 10.58(5)(f) does not require that areas should be restored in-kind. This performance standard identifies that restoration shall include seeding and planting with an erosion control seed mixture, followed by plantings of herbaceous and woody species appropriate to the site. The discussion presented in Section 5.1.8 completely describes how the Project will comply with 310 CMR 10.58(5)(f). In addition, the VHB2 response to Comment W33 provides additional information regarding proposed supplemental plantings.

Estimated Habitat of Rare Wildlife

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 to discuss mowing restrictions within mapped Whip-poor-will habitat. The DRAFT Corridor Management Plan should include protections for this species.

VHB2: In accordance with DCR's Conditional No-Take letter dated May 17, 2019, a final Corridor Management Plan will be submitted to NHESP for review and approval prior to the start of construction. NHESP does not require restrictions on mowing within the whip-poor-will TOY restriction.

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.

VHB2: Eastern box turtle surveys and communication with NHESP are ongoing. A final Eastern Box Turtle Protection Plan will be submitted to NHESP for review and approval prior to the start of construction.

Updates on October 19, 2018, NHESP Conditional No-Take Letter:

1. A final Eastern Box Turtle Protection Plan will be submitted to NHESP for review and approval prior to the start of construction.
2. A final Corridor Management Plan will be submitted to NHESP for review and approval prior to the start of construction.
3. The whip-poor-will TOY restriction will be implemented.

Updates on May 17, 2019, NHESP Conditional No-Take Letter:

1. A final Corridor Management Plan will be submitted to NHESP for review and approval prior to the start of construction.
2. A signage plan for the shoulder and duct bank mowing areas, which will include sensitive dates for eastern box turtle, will be submitted to NHESP for review and approval prior to the start of construction.
3. A final Eastern Box Turtle Protection Plan will be submitted to NHESP for review and approval prior to the start of construction.
4. NHESP has reviewed and approved the proposed native seed mix.

Wildlife Habitat Evaluation

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.

VHB2: VHB has completed a more detailed analysis of landscape context and habitat connectivity for each WIA. See the attached tables (Attachment B) this additional information.

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 Guidance.**
- **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. 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.iii.**

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

VHB2: See the VHB2 response to WPA34 for quantification of important wildlife habitat features.

The Applicants evaluated whether culvert and/or drainage pipe improvements were appropriate for wildlife migration mitigation. It was determined that it was not suitable because the Project will not impact migration to and from vernal pools and increasing pipe sizes could disrupt established hydrology and adversely impact vernal pools.

It is important to note that 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 Project has proposed restoration and mitigation throughout the Project Site and the WHE has demonstrated that the Project will not result in an adverse effect to important wildlife habitat features.

See the attached WHE summary table and individual WIA tables for the additional information (Attachment B).

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.

VHB2: See the VHB2 response to WPA34 regarding evaluating resource areas separately.

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.

VHB2: See the VHB2 response to WPA34 regarding quantification of important wildlife habitat features.

Sudbury Wetlands Protection Administration Bylaw

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.

VHB2: [This is a new comment from BETA.] The NOI and supplemental information fully address how the Project meets the performance standards in the local Bylaw and Regulations.

Isolated Vegetated Wetland

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.

VHB2: There were no important wildlife habitat features identified within the IVW. It is a small area that was likely excavated during construction of the rail line. A picture of the IVW is provided below.

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.

VHB2: As stated within the initial VHB response to W1 and reiterated again in the VHB2 response to W1, erosion controls will be staked using survey-grade equipment (i.e., conventional ground survey). The Applicants can agree to a special condition that the Commission and/or their representative inspect the erosion controls prior to the installation of erosion controls. In addition, as stated within the original response to W1, the Applicants also agree to a special condition for

inspection of erosion controls by the Commission and/or their representative prior to any vegetation removal.

Coldwater Fisheries Resources

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 560+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.

VHB2: The area of proposed clearing for the intermittent tributary to Hop Brook that parallels Station Road (STA 602+50 to 710+50) is 24,578 square feet. All other impacts to CFRs were previously quantified and are addressed in the initial VHB response.

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.

VHB2: See the VHB2 response to Comment WPA37 for additional shrub plantings that were provided to the Commission with the August 7, 2020, supplemental submission. The revised plans include 84 shrub plantings within 80 feet of the Bylaw-only-CFR intermittent tributary that is parallel to the ROW/Station Road and 840 shrub plantings within 80 feet of the portion of Hop

Brook that is east of Boston Post Road. In addition to the shrub plantings, all temporarily disturbed areas will be restored with herbaceous and woody seed mixes.

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

VHB: (As stated within Section 5.2.2 of the NOI, there are six crossings throughout the Project in) 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.

VHB2: This response provides a supplement to the regulatory compliance summary presented in 5.2.2 of the NOI. The following bullets present a summary of the performance standards associated with Cold Water Fisheries Resources, listed in the Sudbury Wetland Regulations at Section 2.6, and also provide an individual evaluation for each CFR within the Project Site, listed west to east from the Sudbury/Hudson town boundary.

Performance Standard Summary

- Maintain or Restore Streamside Forests/Vegetation: This performance standard requires an Applicant to maintain and/or restore an undisturbed, vegetated (forested) state within the riverfront area. Eighty feet is assumed adequate but emphasis is on maintaining or restoring natural vegetation to filter out excess sediments, nutrients, and other pollutants before they reach the water, as well as maintain adequate groundwater recharge. In summary, the Project has been designed to maintain vegetation within 80 feet of all CFRs. Where maintenance is not possible, restoration has been proposed.
- Retain canopy: The emphasis of this performance standard is on retaining tree canopy along the waterbody for cover over the waterbody. The Project has been designed to avoid removal

of trees along the banks of CFRs. Only the two Hop Brook crossings include removal of tree canopy along the waterbody. The restoration proposed at these two locations includes planting of trees (10-12 feet in height).

- Overhanging woody debris: The emphasis of this performance standard is on retaining or restoring logs, stumps, and other large woody debris in and/or overhanging the water. In summary, the Project has been designed to avoid the removal of overhanging woody debris along the banks of CFRs. Only the Hop Brook crossing at Bridge 127 includes removal of overhanging woody debris along the banks. The restoration proposed at this location includes planting of shrubs and installation of logs and stumps in disturbed areas.
- Floodplain connection: The emphasis of this performance standard is on maintaining connection between the waterbody and its adjacent floodplain. This is also a performance standard for BLSF and as presented in the NOI and supplemental information the Project has been designed to maintain all connections between each waterbody and its adjacent floodplain.
- Phosphates/Nitrates: The emphasis of this performance standard is on avoidance of the introduction of these nutrients from certain land uses into these waterbodies. The end use of the Project will be the MCRT, which will not result in any use of phosphates/nitrates and will not generate any such nutrients that could enter any of the CFRs.
- Blockages/Dams: The emphasis of this performance standard is on not installing any structures that could block fish movement in these waterbodies. None are proposed as part of the Project.
- Temperature: The emphasis of this performance standard is on avoiding activities that would result in an increase in the stream's temperature. As described in the NOI and supplemental materials, the project will not increase temperature in CFRs.

Individual CFR Compliance Evaluation

Hop Brook (Bridge 128) – Station 400+30 (14,319 square feet of disturbance from Project)

Hop Brook is a perennial stream that is both a state and Bylaw CFR. This is one of the locations that Dr. Caleb Slater commented on. The Project includes a detailed planting plan for vegetation removal within the crane mat areas at the Hop Brook bridge, which extend farther back than 80 feet from the waterbody. The planting plan includes the installation of 26 trees (10- to 12-foot-high specimens) along the waterbody to restore/improve shading to the waterbody at this location. In addition, the restoration of disturbed areas outside of the proposed 10-foot-wide paved MCRT path includes the installation of 72 shrubs with supplemental seeding. There is no work proposed on the bank of this waterbody and all vegetation that is there will remain undisturbed.

In conclusion, the proposed Project will not degrade this riparian area's fisheries protection function.

Unnamed Intermittent Stream – Station 527+30 (3,966 square feet of disturbance from Project)

This unnamed stream is a culverted intermittent stream and is characterized as a Bylaw-CFR only because it is a tributary to a scientifically documented CFR. Given its intermittent nature, the potential for this waterbody to actually function as a CFR is questionable and limited. However, as can be seen in the plan view and on the cross sections for this area, the culvert extends beyond the limit of work and the Project's limit of work is entirely over the existing culvert that conveys this waterbody under the railbed. As such the proposed project will not result in the removal of any vegetation from the banks or from areas that currently provide shade to this waterbody. In conclusion, the proposed Project will not degrade this riparian area's fisheries protection function.

Dudley Brook – Station 539+40 (16,424 square feet of disturbance from Project)

Dudley Brook is a culverted perennial stream and is characterized as a Bylaw-CFR only because it is a tributary to a scientifically documented CFR. As can be seen in the plan view and on the cross sections for this area, the culvert extends beyond the limit of work and the Project's limit of work is entirely over the existing culvert that conveys this waterbody under the railbed. As such the proposed project will not result in the removal of any vegetation from the banks or from areas that currently provide shade to this waterbody. In conclusion, the proposed Project will not have any adverse effect on this waterbody with regard to its potential to function as a CFR.

Unnamed Intermittent Stream - Station 560+82 (4,992 square feet of disturbance from Project)

This unnamed stream is a culverted intermittent stream and is characterized as a Bylaw-CFR only because it is a tributary to a scientifically documented CFR. Given its intermittent nature, the potential for this waterbody to actually function as a CFR is questionable and limited. However, as can be seen in the plan view and on the cross sections for this area, the culvert extends beyond the limit of work and the Project's limit of work is entirely over the existing culvert that conveys this waterbody under the railbed. As such the proposed project will not result in the removal of any vegetation from the banks or from areas that currently provide shade to this waterbody. In conclusion, the proposed Project will not degrade this riparian area's fisheries protection function.

Unnamed Intermittent Stream - Station 593+18 (18,816 square feet of disturbance from the Project)

This unnamed stream is a culverted intermittent stream that is a Bylaw-CFR only because it is a tributary to a scientifically documented CFR. In addition, once this waterbody flows under the existing railbed through the existing culvert it parallels a large industrial building where most of its banks are currently cleared and then enters another culvert where it goes underground for an undetermined distance through a heavily developed area. Given its intermittent nature, the amount of development, and the length that is culverted, the potential for this waterbody to actually function as a CFR is questionable and very limited. However, as can be seen in the plan view and on the cross sections for this area, the culvert extends beyond the limit of work and the Project's limit of work is entirely over the existing culvert that conveys this waterbody under the railbed. As such the proposed project will not result in the removal of any vegetation from the banks or from areas

that currently provide shade to this waterbody. In conclusion, the proposed Project will not degrade this riparian area's fisheries protection function.

Intermittent Tributary to Hop Brook – Station 602+50 to 710+50 (24,578 square feet of disturbance from the Project)

This intermittent tributary to Hop Brook is a stream that is a Bylaw-CFR only because it is a tributary to a scientifically documented CFR. This stream is best characterized as a man-made drainage ditch that is located adjacent to Station Road. This stream flows out of a concrete culvert near across from Union Avenue and parallels Station Road until its intersection with Boston Post Road where it reenters a culvert and then is conveyed under Boston Post Road to Hop Brook. The land area immediately adjacent to this section of stream is industrial/commercial in nature and several stormwater outfalls that pick-up runoff from adjacent parking lots and other paved surfaces discharge directly to this intermittent stream. Given its intermittent nature, the amount of development, and the length that is culverted, the potential for this waterbody to actually function as a CFR is questionable and very limited. Trees are sparse along this portion of this waterbody and the majority of the 80-foot offset is developed. As can be seen in the plan view and on the cross sections for this area, except at Station 603+00, the Project is not disturbing vegetation all the way down the slope. Therefore, vegetation (low-growing or trees) that is currently providing shading outside of the limit of work will be retained and there will be no loss of shading to this Bylaw only CFR.

As part of the proposed restoration of disturbed vegetation, the planting plan includes the installation of approximately 85 shrub specimens at two locations along this waterbody to restore/improve shading to the waterbody. In addition, the restoration of disturbed areas outside of the proposed 10-foot wide paved MCRT path includes supplemental seeding. In conclusion, the proposed Project will not degrade this riparian area's fisheries protection function.

Hop Brook (Bridge 127) - Station 725+35 (73,397 square feet of disturbance from the Project)

Hop Brook is a perennial stream that is both a state and Bylaw CFR. This is one of the locations that Dr. Caleb Slater commented on. The Project includes a detailed planting plan for vegetation removal within the crane mat areas at the Hop Brook bridge, which extend farther back than 80 feet from the waterbody. The planting plan includes the installation of 12 trees (10- to 12-foot-high specimens) along the waterbody to restore/improve shading to the waterbody at this location. In addition, the restoration of disturbed areas outside of the proposed 10-foot-wide paved MCRT path includes the installation of 840 shrubs at various locations with supplemental seeding.

In conclusion, the proposed Project will not degrade this riparian area's fisheries protection function.

Intermittent Tributary to Wash Brook -Station 747+39

This unnamed stream is a culverted intermittent stream and is characterized as a Bylaw-CFR only because it is a tributary to a scientifically documented CFR. Given its intermittent nature, the

potential for this waterbody to actually function as a CFR is questionable and limited. However, as can be seen in the plan view and on the cross sections for this area, the culvert extends beyond the limit of work and the Project's limit of work is entirely over the existing culvert that conveys this waterbody under the railbed. As such the proposed project will not result in the removal of any vegetation from the banks or from areas that currently provide shade to this waterbody. In conclusion, the proposed Project will not degrade this riparian area's fisheries protection function.

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.

VHB2: See the VHB2 response to Comment SWB5.

Adjacent Upland Resource Area

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.

VHB2: In addition to restoring all temporarily disturbed areas with the herbaceous and woody seed mixes, 1,336 additional shrub plantings within AURA are proposed; this information and revised planting plants was submitted to the Commission on August 7, 2020.

The Applicants have also prepared a comprehensive mitigation proposal that includes the following:

- Removing approximately 41,382 square feet (0.95 acres) of common reed (*Phragmites australis*) from the upstream side of Hop Brook at the Bridge 128 crossing;
- Removing approximately 2,178 square feet of Japanese knotweed (*Polygonum cuspidatum*) within RFA, BLSF, and AURA between STA 712+00 and 713+00;
- Planting supplemental vegetation along vernal pool margins where appropriate; and
- Removing refuse within the ROW and outside of the limit of work where such refuse can be removed without machinery and without impacts to wetland resource areas.

Vernal Pools and AURA to Vernal Pools

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).

VHB2: See the VHB2 response to Comment W24.

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.

VHB2: The Project was designed to minimize its overall footprint and maximize its distance to vernal pools to the greatest extent practicable. The current design includes a significant amount of vernal pool buffers that will not be disturbed as presented in the attached vernal pool figures (Attachment A). These areas represent the proposed No Disturbance Zone for the Project for the Commission's approval. Note that the figures demonstrate that the Project will not have any adverse effect on the ability of existing vernal pools to continue to function as such. With the exception of Vernal Pool 7 (just west of Peakham Road), 85-95% of the existing suitable habitat around vernal pools will remain following completion of the Project. Approximately 82% of the existing suitable habitat will remain at Vernal Pool 7 following construction of the Project.

VHB also conducted a field visit to determine whether it is appropriate to install supplemental shrub plantings immediately adjacent to vernal pools. The majority of the vernal pool margins currently contain trees, shrubs, and herbaceous vegetation (e.g., ferns) that will not be removed by the Project. However, it has been determined that supplemental plantings of red maple (*Acer rubrum*) highbush blueberry (*Vaccinium corymbosum*), sweet pepperbush (*Clethra alnifolia*), and cinnamon fern (*Osmunda cinnamomea*) can be made along the edges of Vernal Pools 2, 3, 4, 6, 7, 8, 9, 11, and 12 and these are detailed below.

- Vernal Pool 2 – 6 highbush blueberries, 4 sweet pepperbushes, and 32 cinnamon ferns
- Vernal Pool 3 – 1 red maple, 4 highbush blueberries, 3 sweet pepperbushes, and 12 cinnamon ferns
- Vernal Pool 4 – 4 highbush blueberries and 1 sweet pepperbush
- Vernal Pool 6 – 3 highbush blueberries
- Vernal Pool 7 – 8 highbush blueberries, 3 sweet pepperbushes, and 17 cinnamon ferns
- Vernal Pool 8 – 9 highbush blueberries and 8 cinnamon ferns
- Vernal Pool 9 – 3 highbush blueberries
- Vernal Pool 11 – 3 highbush blueberries
- Vernal Pool 12 – 4 highbush blueberries and 8 cinnamon ferns

These plantings are shown on sheets 106-110, 113, and 120 of Attachment C of this supplemental submission.

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.

VHB2: An additional 55 shrubs, one tree, and 77 ferns along vernal pool margins within the ROW outside of the limit of work. Refer to response to SWB9 for more detail.

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 appliable 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 regulations.

VHB2: The WHE has been supplemented to consider the Project's impact on VP species' upland habitat and migration (Attachment B). In addition, please refer to the responses to SWB9, SWB10, SWB11, G3, WPA44, and WPA21.

Resource Replications

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.

VHB2: The Applicants request that the Commission determine whether they will grant the request to construct the replication area during Phase 1 construction.

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.

VHB2: The Sudbury Bylaw Regulations specifically state that the intent of transplanting the "top 12" of soil from the original wetland" with the lamination and density profile intact is to "preserve plant, invertebrate, and planktonic communities of the wetland and inhibit the blossoming of invasive species." As previously noted, the existing soils contain invasive species and therefore cannot be used to achieve this goal. Standard practice in cases where the existing soil cannot be transplanted is to use at least 12 inches of manmade topsoil consisting of equal volumes of organic and mineral materials, as the Project proposes. The existing soil information for each wetland was provided in the data forms accompanying the ANRAD application. For specific details on soil specifications, see Note 5 on sheet 167 of the Eversource plans attached to this submission.

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.

VHB: [This is a new comment from BETA.] The Applicants agree to a Special Condition requiring that restored temporary impact areas are established with at least 90% native species.

Wildlife Habitat

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.

VHB2: See the VHB2 response to WPA34 for quantification of important wildlife habitat features and the tables attached to this supplemental submission (Attachment B).

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.

VHB2: CFRs are not required to be evaluated as part of the WHE. See the responses to Comments SWB3 and SWB5 for Project related impacts to both MWPA and Bylaw CFRs.

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.

VHB2: The NOI and supplemental information have adequately described the work, its potential effect on Vernal Pools and their upland buffers, and the Project has presented supplemental mitigation within these areas to ensure that there is no adverse effect to vernal pools from the Project. Please refer to the responses to SWB9, SWB10, SWB11, G3, WPA44, and WPA21, and Attachment A.

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.

VHB2: See the VHB2 response to WPA34 regarding evaluation of individual wetland resource areas.

Riverfront Area Protection

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.

VHB2: [This is a new comment provided by BETA.] The Project is proposing supplemental shrub plantings in RFA as shown on the plans and as described in the August 7, 2020, supplemental

submission. In addition, the plans have been revised to include information on mitigation for large woody debris and fallen logs within one meter of the water's surface. The Project also has an overall comprehensive mitigation package as described in the VHB2 response to SWB7.

Stormwater Management

SW1. Clarify justification for abandonment of existing culvert pipes such that local drainage patterns will not be impaired.

VHB: On the previous version of the plans, pipe #126D was identified to be abandoned. After further review, Pipe #126D will be replaced to maintain local drainage patterns and the plans were updated to reflect this change. In the profile of the previous version of the plans, Pipe #125B was mistakenly labeled to be abandoned, this label was removed and, as noted on the construction plans, the pipe will be retained and extended.

BETA2: A Culvert Structure Assessment Memorandum dated May 31, 2017 to Marc A. Bergeron from VHB was included in the submission. At a minimum the assessment should be updated and the recommendations included in the design plans. Any structures that could not be located should be uncovered, evaluated, and restored.

VHB2: The referenced memorandum was an internal VHB communication that included only a preliminary assessment subject to further evaluation. The Applicants can agree to a special condition requiring a structural engineer to inspect the culverts and that a report be provided to the Commission prior to construction. If any culvert is found to be not structurally sound, it shall be replaced with a culvert that meets current MA Stream Crossing Standards to the maximum extent practicable, as determined by the Commission or its agent, during construction.

SW5. Some swales are located above "fluidized thermal backfill". Provide information on infiltrative capacity of this material.

VHB: Fluidized thermal backfill is a permeable material with an estimated permeability of 1.4 inches per hour.

BETA2: Information provided. Revise exfiltration rate for Basins P-8.3B, 10.8A, and 10.13A to be that of the thermal backfill.

VHB2: The fluidized thermal backfill has an approximate infiltration rate of 1.4 inches per hour (iph). This product is proposed below "Areas of Increased Infiltration" in three locations: P-8.3B, P-10.6A, and P-10.13A. The exfiltration rates (based upon soil borings) for each of these "Areas of Increased Infiltration" are slower than 1.4 iph. Standard engineering practice dictates that the infiltration rate of the more restrictive layer be used when calculating recharge rates; therefore, the current exfiltration rate will be used for these areas.

SW6. Most swales and enhanced infiltration areas are not level and check dams are 6 inches high, update HydroCAD model and treatment volume calculations to reflect design.

VHB: The proposed conditions' hydrologic model assumes stormwater detention only in the areas of increased infiltration (not in conveyance swales) for calculation of the proposed conditions' peak rate of runoff and volume. Storage areas and water quality volumes were refined in the updated Stormwater Management Plan.

BETA2: Model revised for 6 inch high check dam but not for sloped bottoms

VHB2: The current modeling does account for the sloped bottoms of the swales by utilizing contour data outputs from AutoCAD Civil 3-dimensional (3D) as inputs for hydrologic modeling software (HydroCAD) to determine BMP volumes.

SW8. Consider installing infiltration (trench) swale the entire length on the downslope side of the path to facilitate meeting the standards 2,3,4 and 6 more fully.

VHB: Unlike a typical development project with extensive impervious surfaces that uses structural BMPs to re-route stormwater to other areas entirely, the Project design provides for stormwater recharge and treatment within the immediate vicinity of the bike path footprint. The stormwater design provides structural stormwater infiltration BMPs and semi- structural/non-structural "impervious area disconnection" BMPs (redirecting stormwater from areas of impervious cover to areas of pervious cover). The impervious area disconnection BMPs will allow stormwater to discharge in adjacent vegetated areas where it will naturally infiltrate. Although DEP's stormwater management regulations do not provide recharge credit for this non-structural stormwater BMP, EPA guidance recognizes volume and pollutant reductions for the impervious area disconnection BMP (with an impervious area to pervious area ratio as low as 8:1 and no restrictions on slope). The stormwater management design also reflects the fact that stormwater runoff from bike paths is a limited source of pollutants such as total suspended solids and phosphorus. The cost of installation and maintenance of an infiltration trench is not justified by the nominal water quality and recharge benefit that would be provided by an infiltration trench. Based upon these factors, the Applicants do not plan to install an infiltration trench along the entire length of the downslope side of the path.

BETA2: The Massachusetts Stormwater Standards require the implementation of BMPs to manage runoff rates, recharge capacity, pollutant potential, and more from the limits of a Site. While lowlying vegetated areas may exist near the bike path, many of these areas of outside the limits of the Site on properties under separate ownership. To utilize these areas for stormwater management would require an agreement with these owners to ensure that they will always function in the present-day capacity, as otherwise there is no guarantee that future development will not alter drainage patterns. Furthermore, the cumulative increase in uncontrolled stormwater runoff to these areas can result in increased flooding, erosion, pollution, and other impacts which are particularly egregious given the proximity to resource areas and wildlife habitats. Further discussion of these matters has been provided in the sections for Standards 2, 3, 4, and 6. BETA recognizes that sufficient stormwater treatment may be provided without an extreme measure such as an infiltration trench along the downgradient

edge of the walkway in the attached watershed worksheets. Prioritize addressing watershed within stormwater critical areas (red).

VHB2: The project is proposing the non-structural Impervious Area Disconnection BMP within the Project's right-of-way and is not reliant on abutting properties to provide this area. The right-of-way ranges in width but is approximately 80 feet wide and provides vegetation on both sides of the bike path for stormwater to naturally infiltrate within its right-of-way. As previously noted, the Environmental Protection Agency (EPA) Massachusetts MS4 permit notes pollutant and volume reductions with an impervious area to pervious area ratio of as little as 8:1 with no slope requirements. Therefore, pollutant and volume reductions will occur at a shoulder width of only 1.25-feet (with a 10-foot bike path), and typically there is 10-30 feet of vegetated area beyond the bikepath (within the project's right-of-way) that allows for infiltration and treatment.

The Project team reviewed the BETA watershed worksheet provided and determined that a structural BMP could be added in areas 5.13 and 10.14. Plans and calculations have been updated to include an Area of Increased Infiltration at areas 5.13 and 10.14.

Additional locations identified in the BETA worksheet were evaluated for the suitability of a structural stormwater BMP. It was determined that these areas required additional tree clearing and vegetation removal for the construction of a structural stormwater BMP. As previously discussed, given the limited pollutant loading from the bike path and pollutant removal and volume reduction from the existing and proposed vegetation (i.e., the Impervious Area Disconnection non-structural stormwater BMP) additional structural stormwater Best Management Practices are unwarranted.

An infiltration trench was also evaluated at the downgradient edge of the bike path. The Project team considered the cost, land area requirements, and long-term maintenance and compared those to the non-structural impervious area disconnection BMP. That evaluation determined that a subsurface infiltration trenchThis would result in additional land disturbance and vegetation removal, increased cost, and would result in little to no benefit in comparison to the proposed system. SW9. Provide outlet control/overflow devices such that erosion and sedimentation will be controlled.

VHB: The plans were updated to include outlet protection at an area of increased infiltration at station 501 +00 and a proposed deep surface basin at station 533+50.

BETA2: Revisions noted. Provide outlet control/overflow devices at all infiltration areas.

VHB2: All basins include overflow spillways and all areas of increased infiltration include a check dam at the most downstream end which serves as an overflow device.

SW10. Identify where swales will outlet to slopes and flow down slope. Proposed grading will result in the creation of swales alongside the trail for significant portions of its length. Provide calculations showing that these swales can convey proposed flows. Provide outlet aprons for these swales to control sedimentation. For all swales, show that swale lining is capable of managing these flows without losing stability or eroding.

VHB: The Stormwater Management Plan and plan set were refined to include additional information regarding swale lining and outlet protection specifications and calculations. Calculations analyzed both swales and areas of increased infiltration and have shown that in all but one location, flow does not build up erosive velocities greater than the erosion-resisting capacity of the vegetation restored with the proposed seed mix, therefore, outlet aprons are not necessary. At stations 753+50 to 757+50 sod seed mix was added to account for higher velocities, and an outlet apron was added at station 753+50.

BETA2: Calculations for conveyance swales and infiltration basins have been provided. Provide outlet control devices for BMPs P-10.13A, P-10.4A, DP-10.4B, and DP-10.14; these swales/basins were shown to have high flow velocities which are likely to cause erosion at the discharge location. However, it is apparent that proposed grading will result in the creation of "swales" in several areas (e.g. Station 392) that have not been called out in the plans. Note these locations on the plans and provide calculations to ensure that sedimentation and/or degradation will not occur.

VHB2: The plans have been revised to include stone protection (with energy dissipation bowls) or rip rap aprons based on HEC 14 design guidelines at Areas of Increased Infiltration (P-10.13A) and Conveyance Swales (DP-10.4A and DP-10.14) at the request of BETA and the Horsley Witten Group. The flow stability calculation for the DP-10.14B conveyance swale was provided in Appendix A of the previous submission. This calculation was conservative as the full watershed is routed through the 100-foot swale on the edge of watershed; however, in fact only a small portion of this watershed is expected to reach this swale. This conservative calculation showed that although the flow of this watershed is higher than that of other Design Points, the calculated erosive velocities are less than that of the erosion-resisting capacity of the proposed vegetation. This swale is considered stable to possible erosion as previously proposed.

The DCR Operations and Maintenance Plan ("OMP") and Long-Term Pollution Prevention Plan ("LTPPP") have been updated to include a requirement to document and repair erosion gullies during and post construction until all slopes are fully stable (Attachment F). The OMP/LTPPP includes methods to manage erosion when vegetation is not effective.

SW12. Revise and limit pre- and post- development areas to include the Applicant's property and any upgradient area that sheds stormwater runoff to the Applicant's property.

VHB: The Project is a long linear project that discharges to areas near multiple waterbodies, wetlands, and low-points and qualitatively differs from other forms of development. Therefore, design points were chosen that represented these macro-scale low points, wetlands, or waterbodies. Drainage areas were extended past the MBTA ROW to capture both stormwater coming onto the ROW and stormwater that travels to those design points. This was done to provide a comparison of the overall hydrologic conditions of these design points and potential changes from pre- to post-development conditions. The stormwater analysis did consider limiting the watershed areas to the upgradient areas that shed onto the ROW. However, a high-level modeling analysis that limited the watershed areas in this way along a representative 1,000-foot length within an 80-foot-wide

corridor similar to the Project's corridor showed that during a 100-year storm the runoff would only increase by 0.7 cubic feet per second. The existing conditions portion of the analysis assumed cover types of "gravel roads" (to represent the rail bed) and "woods-good" (a cover type that includes forest canopy and groundcover), and the proposed conditions portion assumed "pavement" (to represent the bike path) and "meadow" for varying hydrologic soil groups. This analysis indicated that that updating the watersheds is not necessary, the project would continue to have no detrimental downstream impacts and the update would not result in changes to the stormwater management design.

BETA2: This high-level modeling analysis has not been provided to BETA, and thus its accuracy cannot be verified. Inclusion of downgradient areas in the stormwater analysis is unnecessary and serves to diminish the impacts expected of the project. Furthermore, many time of concentration flowpaths have been modeled entirely within these downgradient areas and thus do not account for the effect the proposed bike path will have on flow times. The downgradient limits of the Watersheds should typically be the property line and/or wetland boundaries to show the impact anticipated on these areas. At a minimum, revise watersheds limits for 5.8, 5.9, 5.11, 5.13, 5.14, 5.15, 5.17, 5.18, 5.21, 6.5, 6.10, 6.11, 6.12, 6.13, 6.14, 7.1, 7.2, 7.4, 7.5, 8.2, 8.3, 8.6, 8.10, and 10.2. These Watersheds generally include large downgradient areas that are not relevant to the project.

VHB2: Areas have been updated as requested; a revised stormwater management report will be provided that includes the revised calculations. Chapter 2, Standard 2 of this report provides additional discussion regarding areas with increases in peak rate of runoff.

SW13. In the HydroCAD model the current railroad bed are identified as gravel roads. Much of the bed has developed a forest matting and is overgrown with trees and brush. In limited areas where there are narrow paths these could be model as dirt, revise calculations accordingly.

VHB: The existing gravel bed remains throughout the existing railroad bed including in overgrown areas. The gravel bed has had a reduction in void space as a result of years of sediment deposition especially in overgrown areas, which reduces the infiltration capacity of this material. The gravel road curve number most accurately represents the runoff conditions, including in overgrown areas, throughout the current railroad bed due to these conditions.

BETA2: BETA walked the entire length and review all photos taken and notes that, if there were no rails left in place, it is unlikely a hydrologist would classify the surface as gravel. Trains typically do not transport sediment like cars and, without supporting data, the assertion that the railroad bed is most accurately represented by a gravel road CN is unverifiable. Provide supporting soil test data or revise CN value as described above.

VHB2: Curve numbers between the bridge replacement at 725+00 and the Eversource Driveway at 767+00 have been revised to represent "Brush" instead of "Gravel" in order to provide a conservation comparison of existing to proposed flows in this overgrown area of rail bed.

SW14. Clarify how soil groups have been determined for areas listed as HSG Unknown.

VHB: Soil groups for HSG unknown soils were determined by evaluating nearby known HSG and applying those to the unknown soils, which is consistent with standard engineering practice.

BETA2: The soil groups listed as HSG Unknown are surrounded by a variety of soil types, including HSG A, HSG A/D, and HSG B/D. It does not appear that a soil group of HSG D can be applied to all of these areas with certainty without additional soil testing to evaluate subsurface conditions. Provide further analysis of the soil in these areas or use the higher rate adjacent HSG. In addition, identify HSG unknown on the Watershed Plans for clarity.

VHB2: The HydroCAD has been updated to reflect HSG A soils for all Hydrologic Soil Group Unknowns, which is consistent with Horsley Witten's suggestion.

SW17. Verify watershed area used for 5.8, 5.13, 5.14, 5.16, 5.17, 5.18, 6.14, 7.1, 7.3, 7.4, 8.3B, 8.4, 8.6, 8.7, 8.8, 8.9, 8.10, 8.11, 10.2, 10.8, 10.9 (Existing and Proposed). The areas attributed to each soil group vary significantly from that shown on the plans.

VHB: The specified watershed areas, soil groups, and land use were verified. No figure or calculation changes are necessary.

BETA2: Watersheds appear to be generally consistent between the model and watershed plans, except for the following: 5.8: Watershed plans show a 1.62 AC area of HSG B/D soil. This area is near to an undrained area and thus the second HSG (D) should be used in the model. 5.14: The area of HSG B shown on the watershed plans is 1.96 AC +/-, yet the model shows it as 3.268 AC. The area of HSG B/D is 3.95 AC +/-, yet the model lists 2.88 AC. 6.14: A 0.594 AC area of HSG C soil is used in the HydroCAD model which is not depicted on the Watershed Plans.

VHB2: Watersheds 5.8, 5.14 and 6.14 have been revised to address comments SW 12 and SW 17.

SW20. Provide means of controlling runoff that will be directed/discharged onto Town streets.

VHB: There are currently no direct connections from the MBTA ROW to the Town of Sudbury drainage system and the Project does not propose any such connections. There is currently overland runoff from the MBTA ROW that discharges onto Town streets under existing conditions at Dutton Road, Peakham Road, Horse Pond Road, and Union Avenue. These four roads have a total of 11 design points that discharge to the roads:

- *Dutton Road: Design Points 6.1, 6.2, and 6.3;*
- *Peakham Road: Design Points 6.15 and 7.3;*
- *Horse Pond Road: Design Points 7.8, 7.10, 7.11, and 7.12;*
- *Union Avenue: Design Points 8.10 and 8.11.*

A shown in Tables 3 through 14 of the Stormwater Management Plan, in most instances these discharges have been reduced by the project design or remain the same under proposed conditions.

In the locations where the discharge will increase, it is a nominal amount and therefore no additional means of controlling runoff is necessary.

BETA2: Grading indicates that localized, concentrated flows may be created onto Horse Pond Road and the Eversource Driveway. While the overall peak discharge rate to these roads may be decreasing, the presence of new impervious areas and removal of vegetation poses a risk of increased localized runoff which is exacerbated by the swale-like conditions directing flow towards the streets. Provide means of preventing sedimentation onto the roads caused by channelized runoff.

VHB2: As Horsley Witten stated in their response to comment SW20, the slope approaching Horse Pond Road is approximately 0.57%, and therefore is not a concern for creating sedimentation onto the road. Regarding the Eversource Driveway, a rip rap apron, designed based on HEC 14 guidelines, has been added at 767+10 RT to prevent sedimentation on the Eversource driveway from watershed 10.15.

SW21. Tabulate comparison of runoff volume to each watershed for pre- and post-development conditions. The Site is abutted by low-lying areas and thus risk of flooding must be considered (8.0(A)(3)(i)).

VHB: The Stormwater Report was updated to include a comparison table of runoff volume to each design point for pre- and post-development conditions.

BETA2: Comparison table provided. Tables show an increase in runoff volume for numerous watersheds which may result in a risk of flooding. Refer to comment SW8.

VHB2: Chapter 2, Standard 2 of the revised stormwater report will provide a discussion regarding areas with increases in peak rate of runoff.

SW22. To address compliance to the maximum extent practicable provide a complete evaluation of all possible infiltration measures per Standard 3, such as infiltration beneath the footprint of the trail or in areas devoid of vegetation such as the sandy area near northern Hop Brook. As discussed above, proposed grading will create low-lying areas which can potentially be used as infiltration areas dependent on presence of vegetation.

VHB: See responses to BETA Comments C3 and SW8.

BETA2: As further discussed in SW8, recharge must be provided within the Site, not on adjacent properties which cannot be maintained by the applicant. There exist many areas along the bike trail outside of resource area buffer zones where infiltration basin could be proposed without increasing the area of disturbance. Provide infiltration BMPs in these areas to meet the required recharge volume. In particular, a greater effort should be made to meet the Recharge volume in the Zone II Wellhead Protection Area. In addition, given the size of the Site, the pre- and post-groundwater recharge conditions should be evaluated for local areas and not just the overall 4.3-mile footprint. Provide a comparison table for each watershed (or similarly appropriate delineation) to evaluate local groundwater impacts. If certain Watersheds

are proposed to be provided recharge only to the maximum extent practicable, then the specific impact on groundwater must be known.

VHB2: All proposed recharge locations are within the Project's right-of-way. Recharge calculations are consistent with requirements of the stormwater management standards and handbook.

SW23. Provide detail for linear infiltration basins and show required grading on cross sections. Identify design criteria such as outlet weir elevation on the plans/details. Show top elevation of check dams to ensure proper flow between cells.

VHB: A detail for areas of increased infiltration was added to the plans. The top elevation of each check dam within areas of increased infiltration was added to the plan set.

BETA2: Detail provided. Include notes identifying seed mix and construction practices recommended by the Massachusetts Stormwater Handbook, Volume 2. Ensure that no portion of the infiltration basin has a longitudinal slope greater than 1%.

VHB2: Please refer to the construction detail plans for seeding information and the SWPPP for details regarding construction practices for seeding.

Regarding the slopes of the areas of increased infiltration, linear areas of increased infiltration most closely resemble infiltration trenches which have no slope requirement. Widened areas of increased infiltration or areas of increased infiltration that are graded as surface basins are designed with a flat bottom and minimum 3:1 side slopes.

SW24. Provide location and label of proposed basins on the drain area plans. Clarify location of Basins 5.18, 8.4, 8.5, and 10.13, BETA was not able to see on the site plan set.

VHB: The watershed figures were updated to clarify the location of each proposed BMP.

BETA2: Plans revised. Indicate location of areas modeled as "low points," e.g. Pond P7.6, P7.8, etc. If low points are located outside of the Site, then they should be excluded from the analysis as their impact on discharge rates and runoff volume cannot be guaranteed by the applicant. If they are located within the Site, then they must be designed/maintained as infiltration basins to ensure long term operation.

VHB2: The low points within the HydroCAD models have been removed in all but two areas where there are on-site low points (in both existing and proposed conditions) within watersheds 10.4 and 8.4. The low point in 10.4 has been labeled on the planset and the low point within watershed 8.4 continues to be identified on the plans by its label "Wetland 26."

SW25. Provide minimum 1' of freeboard for all linear infiltration basins. BETA notes that peak elevation for some basins is above the crest height of the proposed trail.

VHB: The Project meets the structural BMP requirements of Standards 2, 3, 4 and 6 to the maximum extent practicable. Please refer to the response to BETA Comment C3. The Project was designed to provide 1 foot of freeboard to the proposed bike path in all locations where it was possible to do so without requiring a significantly larger limit of work.

BETA2: BETA recognizes that a 1' freeboard may be impractical in some areas. However, several of the proposed basins are located outside of resource area buffer zones and can be expanded without increasing area of disturbance or expanding limit of work. Enlarge basins, where possible, to meet this requirement to the maximum extent practicable. If the freeboard cannot be provided, ensure that emergency spillways are sufficiently sized and properly positioned to control excessive stormwater volumes.

VHB2: Please see the response to comment SW8. Spillways are sufficiently sized and included within the stormwater modeling.

SW26. Review HydroCAD model for basins to ensure that surface areas and elevations in model match those depicted in the plans/sections. Basins designed in HydroCAD are larger than those shown on the plans.

VHB: The HydroCAD surface areas were refined in the updated Stormwater Management Plan. Surface areas were summed at each area of increased infiltration to create a composite surface area that conservatively reflects the storage area behind each check dam. This provides a conservative calculation in order to document compliance with Standard 2, 3, and 4.

BETA2: The areas of basin surface area shown on the plans does not match that used in the model (e.g. Basin 5.8B shows an area of 680 s.f. +/- on the plans, but an area of 1,673 s.f. is used in the model). This discrepancy may be due to a lack of grading detail on the plans. Provide proposed contours for each infiltration basin, potentially on new, enlarged sheets.

VHB2: VHB has calculated the storage for each Area of Increased Infiltration based on AutoCAD Civil 3D surfaces and will include a table within the stormwater report describing the geometry of each Area of Increased Infiltration as suggested by Horsley Witten.

SW28. Conduct test pit/borings at the location of each proposed "area of increased infiltration" to verify soil conditions, infiltration rates, and groundwater levels.

VHB: Groundwater and soil data from on-site borings were reviewed to verify soil conditions, groundwater levels, and to estimate Rawls Rates where data is available. The Project's boring data is included in Appendix C of the Stormwater Management Plan.

BETA2: Information provided. Soil borings have been completed near to the majority of infiltration areas, with the exception of Basin 6.2 (STA 501), 6.6 (STA 511), 8.5A (STA 579). Complete borings/test pits in these areas. Additional soil testing should be conducted in the area of Basins 8.2B, 8.3B, 8.4B (STA 570) due to the length of these basins which may result in variable soil conditions. Furthermore, BETA recommends a condition requiring that additional soil borings/monitoring wells be conducted within the footprint of each basin during construction to be reviewed and approved by the Town. Per MassDEP recommendations, one soil boring should be conducted and one monitoring well installed for every 5,000 sq. ft. of basin area, with a minimum of three soil borings per basin.

Verify Rawl's Rates used for Basin Design. Borings typically indicate a subbase of Silty SAND or SAND in proposed infiltration basin areas, but varying Rawl's Rates associated with Loamy Sand, Sandy Loam, Silt Loam, and Sandy Clay Loam have been used in the various models with no clear justification. For infiltration over the thermal fluidized backfill should use the 1.4 in/hr as noted above.

Provide Soil Boring logs for B-39, B-MP-7, and all other borings identified on the Appendix C figures. BETA cannot verify if basins local to these borings have been modeled to reflect analyzed soil conditions.

VHB2: Please refer to comment G2 regarding additional soil testing. VHB has updated the appendix to include boring B-39 as requested as well as borings B-32 and B-MP-39 which were used in the modeling of two additional areas of increased infiltration. The Project Team also evaluated the borings completed with the due diligence investigation and found they were generally consistent with the findings of the geotechnical borings provided in Appendix C of the stormwater report. Borings conducted through the due diligence effort better represented two areas of increased infiltration (P-8.5A and P10.6A) for determination of infiltration rates and therefore replaced the previously used geotechnical borings and/or previous assumptions applied. These additional borings will be included in Appendix C of the stormwater report.

Rawl's rates were estimated based on correlating the soil description with soil type in the Rawl's rate table found in Volume 3 of the Stormwater Handbook.

SW29. Show that water quality swales will dewater within 72 hours and that seasonal high groundwater is not within 2-4 feet of the swale bottom.

VHB: BMPs called out as "Water Quality Swales" in the previously submitted Stormwater Management Plan were revised to match the plans, which label these areas as "Swales." These conveyance swales were not included in calculations to document compliance with Stormwater Standards 2, 3, 4 or 6. Structural BMP locations for areas of increased infiltration were chosen to capture water before discharging to critical areas and to minimize disturbance to existing vegetation to the maximum extent practicable. Available groundwater data from the Project's boring locations was reviewed to confirm at least 2 feet of separation from the bottom of the proposed structural BMPs. The Project's boring data and calculated drawdown time for areas of increased infiltration are included in Appendix C and Appendix D of the Stormwater Management Plan, respectively.

BETA2: Drawdown calculations provided. Note that drawdown rates may need to be adjusted per comment SW 28. Revise Basin 10.6A (Identified as 10.8A on the plans) to include a 2' separation between the bottom of the basin and the groundwater elevation or complete appropriate mounding analysis.

VHB2: Area of Increased Infiltration P-10.6A has been designed to the maximum extent practicable in an effort to balance stormwater treatment while limiting impact to existing vegetation. Due to the high groundwater near P-10.6A, the Area of Increased Infiltration is modeled with no exfiltration.

SW31. Not all new impervious areas are directed to recharge BMPs, provide capture area adjustment analysis (MSWH vol.3, ch.1 pgs. 27 – 28).

VHB: Capture area adjustment calculations were previously submitted as Appendix C of the Stormwater Management Plan.

BETA2: The provided calculations indicate that 42% of the total impervious area is directed to infiltration BMPs. Per MSWH Vol 3., at least 65% of this area must be directed to infiltration BMPs to achieve required recharge. Provide additional infiltration BMPs to meet this 65% minimum.

VHB2: The Project is meeting Standard 3 to the maximum extent practicable. It should be noted that the recharge calculations are conservative and do not account for infiltration that will naturally occur in the grassed conveyance swales or within the vegetated areas adjacent to the bike path (i.e., the impervious area disconnect BMP).

SW32. Revise TSS Removal worksheets. 80%/70% TSS removal credit can only be attributed to infiltration basins/water quality swales if combined with adequate pretreatment.

VHB: The TSS removal worksheets were updated to reflect pollutant removal rates published by EPA in order to highlight the Project's compliance to the maximum extent practicable for Standard 4. Although they do provide treatment benefits, swales and vegetated filter strips are not included in the TSS calculations because they are not considered recharge and treatment BMPs by MassDEP's current Stormwater Management Handbook.

BETA2: Upon further consideration sediment load is expected to be minimal, concentrate treatment is stormwater critical areas identified – see SW8.

VHB2: See response to comment SW8.

SW-R1. BETA2: Per Comment SW8, additional BMPs could be proposed to better meet the water quality volume requirements of this standard. Provide additional water quality volume particularly in watersheds bound for critical areas.

As discussed in comment SW22, the project is 4.3 miles long, yet a water quality volume analysis has been provided only for the entire site rather than localized areas. Provide water quality volume analysis for each watershed, or similarly appropriate delineation. Provide required water quality volume through the use of additional infiltration BMPs.

VHB2: [This is a new comment from BETA.] See response to comment SW8.

SW34. Provide required BMPs to treat discharges in these critical areas.

VHB: See response to Comment SW8. The Project design provides structural and non-structural stormwater BMPs to provide treatment, detention, and infiltration for the proposed MCRT and avoid impacts to critical areas. The Stormwater Management Standards require that BMPs be set back 100 feet from vernal pools and that infiltrating BMPs be located at least 50 feet from any surface water including wetlands, which limits the available space for such stormwater features within this linear

corridor. Bike paths are a limited source of pollutants and any additional structural BMPs would provide negligible benefits in comparison to the proposed design which is unlikely to impact critical areas.

BETA2: Treatment of stormwater should at a minimum be focused on stormwater critical areas identified in SW-8.

VHB2: See response to comment SW8.

SW35. Provide draft copy Stormwater Pollution Prevention Plan SWPPP for review.

VHB: Please refer to the draft SWPPP manual attached with the prior response to BETA comments dated June 25, 2020.

BETA2: SWPPP provided. BETA recommends a condition requiring the final, completed SWPPP be provided to and approved by the Town prior to the start of construction, including all information TBD such as project contractor. BETA offers the following comments regarding the SWPPP's contents:

a. While specific construction phasing dates may not be known at this time, provide approximate duration of each phase/task.

b. Provide general description on where temporary conveyance channels/basins may be used. Conveyance channels should not discharge runoff towards resource areas without proper treatment.

c. Provide copies of correspondence identified in Section 9.1.1, 9.1.2, and 9.2.4.

d. Provide Attachments E, F, G, O, P, Q, and S.

VHB2: The Applicants can agree to a special condition requiring submission of the final SWPPP to the Commission prior to start of construction.

a. See the response above to W28.

b. Locations of any temporary conveyance channels/basins, if determined to be necessary, will be identified by the contractor in the field. The channels will not be allowed to discharge toward resource areas without treatment; as noted in the SWPPP, they must discharge to either sedimentation basins or protected catch basin inlets.

c. Copies of supporting correspondence will be provided with submission of the final SWPPP.

d. All attachments will be provided with submission of the final SWPPP.

SW39. Provide perimeter erosion controls along the south side of the Site near stations 391+50, 405, 516, 545 through 555, 557, 565, and 753, and the north side of the Site near stations 565 through 569 and 580 through 585.

VHB: These areas were evaluated during the Project design and it was determined that perimeter erosion controls are not required due to site conditions (i.e., slope) and proximity to wetland resource areas.

BETA2: BETA recognizes that many areas of the Site's perimeter will not need erosion controls where topography is directed towards the Site. However, the areas referenced above include topography, based on the plans, that is directed away from the Site. Provide perimeter erosion controls in the areas identified above, and provide a note requiring perimeter controls at all site boundaries where topography is sloped away from the areas of disturbance. Also note that this comment included a mistake and should have read the north side of the Site near station 405.

VHB2: The areas noted in the original comment are areas where there is not a significant slope leading away from the limit of work. Regardless, if additional perimeter controls are determined to be necessary to comply with the EPA Construction General Permit, they will be identified in the SWPPP which can be provided to the Commission prior to construction.

SW40. Provide a construction phasing plan that limits the area of the Site disturbed at any one time to mitigate environmental impacts and risk of erosion.

VHB: The actual work to be performed in each area, as well as accompanying date(s) for when such work will be performed, will be established once a Contractor is engaged to perform the work. However, there is no need to limit the area of the Site disturbed at any one time because appropriate erosion control measures will be employed to minimize potential impacts and environmental monitors will be present throughout to confirm that all activities are being conducted in accordance with applicable permit conditions.

BETA2: BETA defers to the Town regarding the need for a detailed sequencing plan. Provide a note requiring that perimeter controls be placed along the downgradient side of disturbed areas where topography is directed towards other portions of the existing/proposed trail work area.

VHB2: See response to SW39.

SW41. Provide measures to protect infiltration systems during construction.

VHB: As described in the draft SWPPP manual, permanent infiltration BMPs shall not be used as temporary construction sedimentation basins without prior approval of the project engineer.

BETA2: Even if infiltration basins are not intended for use as temporary basins, there is a risk that sediment will inadvertently flow into them during construction. Clarify time in construction sequence when basins will be constructed and means of repairing damaged infiltration basins if needed during site restoration.

VHB2: As described in the NOI and above in the response to W12, stormwater features will be constructed during the grading step of Phase 1, after erosion controls are installed and before installation of the underground transmission line. As noted in the SWPPP manuals, Project

Operators are responsible for taking corrective action if any stormwater control feature requires repair or replacement. The specific means of repair will depend on the nature of the damage incurred but could include tasks such as surface restoration and stabilization, removal of obstructions, and/or reconstruction.

SW43. Provide template for inspection forms (9.0(B)(3)).

VHB: See the SWPPP manual for an inspection form template.

BETA2: Revise inspection forms to require weather information since time of last inspection, duration of last storm event, and locations of any BMPs that need to be maintained, failed, or did not exist.

VHB2: The general information of the Construction Site Inspection report has been revised to include an entry regarding weather conditions since the last inspection (Attachment G). Information on the condition of BMPs is already included in the Inspection Report on the second page of the report.

SW46. Provide Operation and Maintenance Plan for stormwater controls meeting the requirements of the MassDEP Stormwater Handbook and Town of Sudbury requirements.

VHB: An updated DCR Operations and Maintenance Plan ("OMP") and Long-Term Pollution Prevention Plan ("LTPPP") is attached.

BETA2: O&M Plan provided. Include requirements of Standard 9, including:

a. Means to notify future property owners of need for maintenance

b. Estimated operations and maintenance budget.

c. Provide inspection/maintenance measures for catch basin meeting the recommendations of the MASWH Volume 2.

d. Revise inspection/maintenance measures for drainage swales, infiltration basins, and check dams to match the recommended activities and frequencies outlined in the MASWH Volume 2.

e. Operation and maintenance for all culverts.

VHB2:

a. There is no need to provide for a future owner since the project site will not be sold. DCR retains a 99-year lease.

b. DCR will be responsible for operation and maintenance of the rail trail. DCR has a seasonal Capital Repair Program for maintenance of its rail trail system which will include this portion of the MCRT when completed.

c. A single shallow catch basin will be installed adjacent to Peakham Road to collect and convey water to a small surface basin that is an area of increased infiltration. The catch basin and

surface basin will be inspected twice yearly and cleaned as needed. This catch basin is not a deep sump structure that is intended to provide pretreatment of stormwater.

d. The OMP/LTPPP has been revised (Attachment F).

e. The operation and maintenance of all culverts has been added to the OMP/LTPPP.

SW47. Provide map indicating location of all proposed BMPs.

VHB: The Stormwater Management Plan figures have been updated to clarify the location of each proposed BMP.

BETA2: The Watershed figures identify the location of proposed infiltration basins, but not the proposed swales. The purpose of the map, required by the Mass. Stormwater Handbook, is to show all BMPs in an easy to read plan for operation and maintenance. Provide a map indicating the location of all proposed BMPs in relation to the access road and site entry points.

VHB2: An additional figure will be added to the OMP/LTPPP that shows the stormwater features that are covered within the Operation and Maintenance plan, which include conveyance swales, areas of increased infiltration, and drainage structures. Roadway features that cross the bike path will also be labeled.

SW48. Provide inspection measures meeting the requirements of 9.0(C).

VHB: Section 9.0C of the Sudbury Stormwater Management Bylaw Regulations addresses Construction Inspections. The draft SWPPP manual provided with the response to BETA comments dated June 25, 2020, addresses inspection measures during construction

BETA2: This comment was intended to refer to Section 8.0(C), which describes the requirements of the long-term O&M plan. The following measures must be provided:

a. Means of making the required O&M log available to the MassDEP and the Planning Board

b. Entries on the inspection forms for spillways, vegetation, and outlet channels.

c. Procedure for changes to the O&M plan.

VHB2: The maintenance log will be available from the Field Operations Team Leader for the Hopkins Complex at the DCR Maintenance Facility in Hopkinton, Massachusetts (phone number 508-435-4303). The OMP/LTPPP log will be provided on request. The inspection form will include the maintenance entries. If the OMP/LTPPP is revised, a copy will be provided to the Planning Board.

SW49. Provide inspection and maintenance procedures for culverts.

VHB: Inspection and maintenance of proposed and existing structures will be conducted in accordance with the OMP and LTPPP.

BETA2: Clarify if the requirements for "drainage structures" are intended to apply to culverts.

VHB2: Yes, culverts are considered to be drainage structures for the purposes of inspection and maintenance.

SW51. Provide illicit discharge compliance statement signed by the Owner.

VHB: A statement regarding illicit discharge was provided in the Stormwater Management Plan. Once the Project is constructed a finalized and signed illicit discharge statement will be provided.

BETA2: BETA recommends a condition requiring the signed version of the statement be provided prior to construction.

VHB2: The applicants will agree to this condition.

Bridge Construction Impacts

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: [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: BETA recommends a condition requiring the contractor to provide detailed plans to verify impacts prior to pre-construction meeting.

VHB2: The Applicants will agree to a condition requiring the submission of crane mat plans to the Commission prior to commencement of placement of the mats.

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: BETA defers to the Commission on this issue.

VHB2: Certified divers will cut the existing timber piles at the mud line by hand to avoid sediment suspension. The use of divers to cut the existing piles at the mud line is the most effective way to ensure that there is no prolonged increase in turbidity in the waterbody. Work will be scheduled and completed during low flow conditions.

By cutting the existing timbers at the mud line and maintaining a uniform water column, the Project will not alter the public's access to or free passage over and through this waterbody, including the ability to float on, swim in, or otherwise move freely within the water column.

Summary

C10. 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

VHB2: The Applicants have 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 issue an Order of Conditions approving the work.

Sincerely,

Katie Kinsella and Gene Crouch

CC: Denise Bartone – Eversource
Paul Jahnige – DCR
MassDEP - Northeast Regional Office