



January 22, 2019

Cummington Conservation Commission  
33 Main Street  
Cummington, MA 01026

Attn: Allan Douglas, Chairman

**Re: Proposed Retail Development (MassDEP File No. 139-0059)  
337 Berkshire Trail, Cummington, MA  
Response to Environmental & Stormwater Peer Review  
Response to MassDEP Comments**

Dear Mr. Douglas:

Below please find our response to a Peer Review comment letter from Jean Christy and Katherine Wilkins of Tighe & Bond, Inc., dated December 17, 2018 followed by responses to comments received from the Massachusetts Department of Environmental Protection, dated November 19, 2018. For clarity, the original report is in italics below with our responses within in bold font, where applicable.

***Wetland Delineation Report***

*A site visit was conducted by Tighe & Bond on November 21, 2018 to review the Project Site, the delineation of wetland resource area boundaries, and the location of proposed activities as it relates to those boundaries. Results of Tighe & Bond's assessment are provided below.*

*The report, prepared by Matthew Marro Environmental Consulting dated July 10, 2018, documents the wetland resource areas subject to jurisdiction under the Massachusetts Wetlands Protection Act and regulations (310 CMR 10.00), identified at 337 Berkshire Trail, Cummington, Massachusetts (Map 23D, Lot 4; i.e. the Project Locus).*

*A Bordering Vegetated Wetland (BVW), marked in the field with flags WF-1 through WF-22, was delineated within the eastern extent of the Project Locus. The delineated wetland boundary appears to have been extended (flags GF-1 through GF-25) to the west through a mowed field toward and south of the Project Locus. The Marro Report characterizes this wetland as a Palustrine Scrub-Shrub and Emergent (PSS/PEM1B) that borders on an unnamed perennial stream that flows south to north through the Project Locus. Based on Tighe & Bond's field observations during a site visit on November 21, 2018, the wetland appears to follow a very slight topographic break in slope, change in dominant vegetation, and presence of hydric soils.*

*Three (3) MassDEP Bordering Vegetated Wetland Delineation Field Data Forms were included as part of the Marro Report. Although they provide details about the general characteristics of the wetland, they do not provide a full description of the resource area. The data forms provided only soil data and did not provide detailed vegetation data. Furthermore, soils information provided in the data forms did not match what was noted in the field visit on November 21st. Per the criteria for evaluating the boundary of BVW set forth at 310 CMR 10.55(2)(c)(2), the determination of BVW boundaries not presumed to be accurate based only on the presence of 50% or more wetland vegetation, should be based on an evaluation of vegetation, hydrology and soils. We recommend the Commission require the Applicant and/or their Representative present their rationale for relying solely upon the soil profile and information provided in the data forms.*



**Response:** The limit of Bordering Vegetated Wetland (BVW) was delineated by Matthew Marro of Marro Environmental Consulting with on-site consultation with Cummington Conservation Commission's peer review consultant, Emily Stockman of Stockman Associates LLC. As the BVW is located within a previously plowed and mowed field and vegetation is incongruent, both Mr. Marro and Ms. Stockman agreed that the use of vegetation as a wetland indicator would not be constructive and therefore relied upon the soil profile for delineation of the BVW. Mr. Marro's report reflects this strategy.

*Inland Bank and/or Mean Annual High Water (MAHW) associated with the unnamed perennial stream do not appear to have been flagged in the field or otherwise identified on the plans in the NOI or Marro Report. We recommend the Commission require the identification of these resource areas to accurately portray the extent of 200-foot Riverfront Area within the Project Locus.*

**Response:** The Mean Annual High Water (MAHW) associated with the unnamed perennial stream has been identified on the enclosed Site Development Plans to be the top of bank of the defined channel associated with the unnamed perennial stream, per consultation with Marro Environmental Consulting. Mr. Marro's initial delineation included the flagging of the MAHW to be the top of bank as shown on the enclosed Site Development Plans, which appear to have been destroyed over the course of time.

*In general, Tighe & Bond concurs with the boundaries as flagged in the field. However, the regulations (Section D3 of MassDEP WPA form 3) require documentation of the methodologies used to establish these boundaries. The resource areas as currently portrayed on the plan set appear to be missing information and need to be revised to include the 200-foot Riverfront Area as measured from the MAHW in accordance with 310 CMR 10.58(2)(a)(3), as well as the 100-foot Buffer Zone to Inland Bank and/or BVW.*

**Response:** The 200-foot Riverfront Area and 100-foot Buffer Zones are identified and reflected on the enclosed Site Development Plans per the evaluation by Marro Environmental Consulting.

*Massachusetts Wetland Protection Act (MAWPA) Performance Standards 100-foot Buffer Zone – A 100-foot Buffer Zone has been identified off the Bordering Vegetated Wetland (flags WF1-22 and GF1-GF-25) on the plans dated October 18, 2018. The limits of 100-foot Buffer Zone within the Project Locus that also include the Buffer Zone to inland Bank associated with the perennial stream channel, which was originally identified as an intermittent stream in the Marro Report, is located north of the existing site building between the stream diversion pipe and culvert under Berkshire Trail (Rt. 9). The project drawings do not show the 100-foot Buffer Zone in this area. We recommend the Commission require the Applicant to revise the drawings and provide an updated set to the Commission.*

**Response:** The enclosed Site Development Plans have been updated to include the 100-foot Buffer Zone from the channel/inland bank located north of the existing building, the location of which was determined upon consultation with Marro Environmental Consulting.

*The proposed activities, as shown on the drawings, are located approximately 5 to 6 feet from the BVW boundary in the vicinity of wetland flags GF-1 through GF-4, and approximately 50 to 75 percent of the proposed building is within the 100-foot Buffer Zone. It is within the Commission's discretion to establish additional protective measures based on the presumed significance of adjacent resource areas, unless and until the Applicant can demonstrate the project will not adversely impact these areas.*



*This authority is established at 310 CMR 10.53(1), which states that for work in the Buffer Zone subject to review under 310 CMR 10.02(2)(b)3., the Issuing Authority shall impose conditions to protect the interests of the Act identified for the adjacent Resource Area. The potential for adverse impacts to Resource Areas from work in the Buffer Zone may increase with the extent of the work and the proximity to the Resource Area. The Issuing Authority may consider the characteristics of the Buffer Zone, such as the presence of steep slopes, that may increase the potential for adverse impacts on Resource Areas. Conditions may include limitations on the scope and location of work in the Buffer Zone as necessary to avoid alteration of Resource Areas. The Issuing Authority may require erosion and sedimentation controls during construction, a clear limit of work, and the preservation of natural vegetation adjacent to the Resource Area and/or other measures commensurate with the scope and location of the work within the Buffer Zone to protect the interests of M.G.L. c. 131, § 40. Where a Buffer Zone has already been developed, the Issuing Authority may consider the extent of existing development in its review of subsequent proposed work and, where prior development is extensive, may consider measures such as the restoration of natural vegetation adjacent to a Resource Area to protect the interest of M.G.L. c. 131, § 40. The purpose of preconstruction review of work in the Buffer Zone is to ensure that adjacent Resource Areas are not adversely affected during or after completion of the work.*

**Response:** As noted during previous discussions with the Commission, the project proposes to provide a net improvement for the proposed redevelopment project. Proposed improvements in comparison to existing conditions include additional setbacks of impervious surfaces to the resource area, a decrease in the total amount of impervious on-site by approximately 2,136± square feet with restoration of previously degraded surfaces, and a proposed stormwater management system in compliance with the MassDEP Stormwater Management Handbook where none exists for existing impervious surfaces. Additionally, the project proposes to provide construction period erosion and sediment perimeter controls and additional practices as shown on the enclosed Site Development Plans. The Applicant, as previously noted during discussions with the Commission, is amenable to working with the Commission relative to additional measures, as appropriate.

***Bordering Land Subject to Flooding (BLSF)*** – Based on our review, the depiction of BLSF appears to be in accordance with 310 CMR 10.57(2)(a)(3). BLSF was identified at elevation 998.1 feet (NAVD 1988) within the Project Locus. The elevation is based on the maximum lateral extent of flood water observed by the Cummington Conservation Commission, in conjunction with observations made by Emily Stockman of Stockman Associates LLC (of Adams, Massachusetts), based on long-term review of conditions and past projects at this location. We concur the use of the elevation derived from previous assessments on site yields a more accurate determination of the limit of BLSF than the FEMA FIRM mapping which does not indicate a Base Flood Elevation (BFE).

As outlined in 310 CMR 10.57(4)(a)(1 and 2), the proposed project is required to address changes in flood storage capacity within the Project Locus. An analysis of compensatory flood storage volumes was provided in the NOI and Drainage Report. One item to address relative to determining compensatory flood storage is whether or not the existing building occupies flood storage capacity.

There is no reference in the Wetlands Protection Act regulations that define how to account for existing flood storage capacity when determining the need for compensatory storage relative to the removal of an existing structure within BLSF. Per a phone conversation on December 11, 2018 with Mark Stinson of the Massachusetts Department of Environmental Protection (MassDEP) Western Region, Mr. Stinson indicated that this finding is subject to the discretion of the Conservation Commission as to whether or not they think the applicant has provided sufficient evidence as to whether the building has a restricted hydraulic connection to BLSF. Discussion with the Conservation Commission regarding the existing building (anecdotally called the “Apple Storage”)



*suggests that the building has flooded in the past and may have done so on more than one occasion. We recommend the Commission require further review of the building and history of flooding in and around the building, and that the findings of this review be documented so that the Commission can further assess the status of the building relative to a hydraulic connection to BLSF. This finding may or may not support the assertion that the volume of the building within BLSF can be used as compensatory flood storage for the purposes of this NOI.*

*Should the Commission determine that the existing building basement be considered “flood storage,” we recommend the Commission require additional documentation that adequate compensatory flood storage is provided. It should be noted, however, that providing flood storage to the elevation of the bottom of the existing basement would likely encounter groundwater and potentially drain the adjacent wetland system and is not recommended*

*Overall, the project has been designed to increase potential flood storage capacity on a per-foot elevation interval above elevation 995.1, if the Commission determines that the building is flood proof. If not, then additional review and compliance with the performance standards set forth at 310 CMR 10.57(4)(a) (1 and 2) is necessary.*

**Response:** **Our understanding is that the existing building was constructed to serve a variety of previous commercial uses and is intended for use as habitable space and not designed to allow flood waters to flow into or through it. The existing building restricts flows and there is not an unrestricted hydraulic connection between the Bordering Land Subject to Flooding and the interior of the building as the building has been utilized as habitable space. As such, the existing building is not appropriate to be considered as flood storage. The project proposes to remove the existing building to provide unrestricted floodplain storage and proposes to provide additional compensatory floodplain storage, resulting in a calculated 11,773± cubic-foot increase in available flood storage on-site, or approximately 187% of that required, as previously detailed in the Notice of Intent submission package.**

*The NOI does not demonstrate that the performance standard set forth at 310 CMR 10.57(4)(a)(3) relative to the protection of wildlife habitat has been met. We recommend the Commission require a Detailed Wildlife Habitat Evaluation for work in BLSF prepared in accordance with 310 CMR 10.60 since the proposed activities in BLSF exceed 5,000 square feet.*

**Response:** **As previously noted, the project is the redevelopment of an existing developed site and represents a net improvement to the protection of the resource areas through increased setbacks from impervious surfaces to resource areas and proposes a reduction in total impervious coverage. The majority of the project area is located within previously disturbed areas and, as previously discussed with the Commission, the project intends to revegetate and naturalize existing degraded areas. Additionally, the project has been reviewed by NHESP and a determination has been made that the project will not result in a Take of state-listed species, with conditions. Accordingly, further wildlife habitat evaluation is not believed to be appropriate for this project.**

**Riverfront Area** – *The unnamed stream shown on the plans, and presented in the Marro Report, was originally presumed to be intermittent based on an evaluation per 310 CMR 10.58(2)(a)(1). The stream is not shown on the most recent USGS topographic map, therefore the procedure for determining perennial verse intermittent at 310 CMR 10.58(2)(b) or (c), depending on the watershed sizes, must be followed.*

*A USGS StreamStats evaluation of the stream was performed and provided as an attachment to the NOI. In Section 2.4 of the NOI, the Applicant notes that the stream is not shown on the most current USGS map and the watershed*



size of the stream per StreamStats is 0.68 square miles. We concur with these points but disagree with the statement that the watershed size below the 1.0 square mile threshold results in the finding that the stream is intermittent. Per the regulations at 310 CMR 10.58(2)(a)(1)(c), the threshold for determining that a stream is perennial under the WPA regulations is a watershed of at least 0.50 square miles and a predicted flow rate of at least 0.01 cubic feet per second (cfs) at the 99% flow duration as determined by USGS StreamStats. The applicant did not note the use of the predicted flow rate in the NOI, as provided in the regulations cited above, for the determination of the stream as intermittent versus perennial.

Mark Stinson of MassDEP, pursued the matter of the partial USGS StreamStats with Thomas Maguire of MassDEP and determined that the stream is perennial under the MAWPA. According to the USGS StreamStats report document in the email dated 11/16/2018 from Mr. Maguire, the stream has a watershed size of 0.68 square miles and predicted flow rate of 0.03 cfs at the 99% flow duration. As such, the stream meets the criteria set forth at 310 CMR 10.58(2)(a)(1)(c)(i) to be considered perennial.

On December 7, 2018, Austin Turner of Bohler Engineering sent an email to Tighe & Bond and the Cummington Conservation Commission to address the project in relation to the Riverfront Area performance standards. Three figures, as listed above, a narrative and a flow chart were submitted to demonstrate how the project meets the criteria to be reviewed as Redevelopment Within Previously Developed Riverfront Area set forth at 310 CMR 10.58(5). The information provided in the December 7th submittal presented information relative to the extent of Riverfront Area within the Project Locus and Project Site, the amount of Riverfront Area within the Project Locus, location(s) of existing degraded areas, and the location and size of the proposed "re-naturalization" area. The December 7th submittal did not include a description of how the project complies with the performance standards set forth at 310 CMR 10.58(5)(a through g).

We recommend the Commission require the Applicant submit the following information:

- Updated project drawings that show the extent of Riverfront Area within the Project Locus on the previously submitted Site Development Plans which will be the Plans of Record.

**Response: The Riverfront Area within the project locus has been shown on the enclosed Site Development Plans.**

- Written description of Previously Developed Riverfront Area within the Project Locus

**Response: The enclosed narrative has been updated to provide a written description as to how the project meets the performance standards of 310 CMR 10.58 of the Wetlands Protection Act, included a description of previously development within the Riverfront Area.**

- Quantification of the square footage of work within Riverfront Area within the Project Locus.

**Response: The enclosed narrative has been updated to provide a written description as to how the project meets the performance standards of 310 CMR 10.58 of the Wetlands Protection Act, included quantification of work within the Riverfront Area.**

- Updated WPA Form 3 page 3

**Response: An updated WPA Form 3 Page 3 has been enclosed with this response.**

- Detailed description of how the project meets the applicable performance standards for work in Riverfront Area as set forth at 310 CMR 10.58(5) (a through g).

**Response: The enclosed narrative has been updated to provide a written description as to how the project meets the performance standards of 310 CMR 10.58 of the Wetlands Protection**



**Act, including 310 CMR 10.58(5) (a through g). Each standard has been addressed individually in the revised NOI narrative.**

- *We recommend identifying each performance standard in narrative form and addressing each standard specifically as it relates to the project as proposed.*

**Response: The enclosed narrative has been updated to provide a written description as to how the project meets the performance standards of 310 CMR 10.58 of the Wetlands Protection Act, including 310 CMR 10.58(5) (a through g). Each standard has been addressed individually in the revised NOI narrative.**

- *Detailed description of a restoration plan, including seed mix and plantings as necessary, for the proposed “re-naturalization” area.*

**Response: The enclosed narrative has been updated to provide a written description as to how the project meets the performance standards of 310 CMR 10.58 of the Wetlands Protection Act, and includes information relative to the restoration of existing degraded surfaces.**

*We further recommend that the Commission refrain from making a final decision until the outstanding filing fees for activities in Riverfront Area has been provided to both the Town and the State.*

**Response: Additional filing fees relative to activities within the Riverfront Area have been provided to the Town and State. Please see enclosed for an updated NOI Wetland Fee Transmittal Form has been enclosed reflecting updated fee totals.**

*Depending on the proposed impact numbers within the 0 to 100-foot or 100 to 200-foot Riverfront Area and the project’s ability to proceed under Previously Developed Riverfront Area, a Wildlife Habitat Evaluation may be required per 310 CMR 10.58 (4)(d)(1)(c).*

**Response: Existing and proposed Riverfront Area calculations are included within the narrative, as well as with this response. As noted within the enclosed narrative, the project proposes to provide a net decrease in degraded area within the 200-foot Riverfront Area, and a significant decrease, approximately 11,740± square feet, in degraded area within the 100-foot Riverfront Area. Overall, the project is the redevelopment of an existing developed site and represents a net improvement to the protection of the resource areas through increased setbacks from impervious surfaces to resource areas and a reduction in degraded area within the Riverfront Area. The majority of the project area is located within previously disturbed areas and, as previously discussed with the Commission, the project intends to revegetate and naturalize existing degraded areas. Additionally, the project has been reviewed by NHESP and a determination has been made that the project will not result in a Take of state-listed species, with conditions. Accordingly, further wildlife habitat evaluation is not believed to be appropriate for this project.**

### ***NHESP – Rare Species Habitat***

*Tighe & Bond has reviewed the most current Natural Heritage and Endangered Species Program (NHESP) mapping (August 1, 2017) and confirmed that a portion of the Project Locus and Project Site fall within the limits of Priority Habitats of Rare Species (PH 1527) and Estimated Habitats of Rare Wildlife (EH 1085). Further, according to NHESP’s online town viewer, the American Bittern (*Botaurus lentiginosus*) has been documented in the Town of Cummington.*



*As required by the regulations set forth at 310 CMR 10.59, a fully completed copy of the NOI (including all plans, reports, and other materials required under 310 CMR 10.05(4)(a) and (b)) has been sent to NHESP. As further stated in 310 CMR 10.59, NHESP shall make a determination within 30 days and such determination shall be presumed by the issuing authority to be correct. The applicant has submitted the Notice of Intent for review and received comments back from NHESP in a letter dated December 10, 2018. On page 2 of the December 10th letter, NHESP outlined four conditions they require be conditioned in the Order of Conditions to help avoid a “Take” of the species located in the Project Locus. We recommend the Commission condition the project as direct by NHESP in their December 10, 2018 letter.*

**Response: Comment acknowledged.**

**Stormwater Report**

*The proposed stormwater management design has been provided in general accordance with the Massachusetts Stormwater Standards (Standards). The provided Stormwater Management Report provides the necessary documentation to satisfy each of the ten Standards. General civil/site design and technical stormwater management design comments are provided below*

- 1. The provided Stormwater Management Report did not analyze existing storm drain infrastructure both on-site and down-stream from the development area. While this is not a requirement of the Standards, the Commission should opine on the historic functionality of the existing 48-inch culvert on-site, the existing culvert crossing Fairgrounds Road and the existing box culvert crossing Route 9. Should there be no concerns such as frequent flooding, no further analysis will be required.*

**Response 1: The project does not propose modifications to the existing on-site and off-site culverts in an effort to mimic existing hydrology. The project is calculated to represent a decrease in peak runoff to the existing culverts for the analyzed storm events.**

- 2. Recently, NOAA Atlas 14 has been the designated as the appropriate resource for the determination of estimated rainfall depths and distributions for the New England region as Technical Paper (TP) 40 is quite outdated. The rainfall data used in the provided hydrologic analysis does not match these values provided in Atlas 14. While the rainfall depths during more frequent storm events may be negligible to the design, the larger storms may require modifications to the design. The Applicant should consider evaluating the proposed stormwater management design with the following rainfall depths per Atlas 14:*

<b><i>Rainfall Depths (inches)</i></b>	<b><i>2-Year Storm</i></b>	<b><i>10- Year Storm</i></b>	<b><i>25- Year Storm</i></b>	<b><i>100- Year Storm</i></b>
<i>As Proposed</i>	3.00	4.50	5.20	6.40
<i>Atlas 14</i>	3.19	4.89	5.95	7.59

**Response 2: Although not a requirement of the MassDEP Stormwater Management Handbook, the NOAA Atlas rainfall depths have been incorporated into the project Drainage**



**Report and the design has been updated accordingly. A copy of the updated Drainage Report and Site Development Plans are enclosed with this letter.**

3. *The provided TSS removal calculations do not reflect all treatment trains. A treatment train for the bioretention area should be provided. Additionally, TSS removal calculations cannot claim both sediment forebay and infiltration basin, as well as the subsurface infiltration system and isolator row. The 80% TSS removal rate for infiltration basins assume that a sediment forebay, or other pretreatment devices, have been included. We note that this adjustment will not alter then 80% TSS removal minimum for proposed conditions.*

**Response 3: TSS removal calculations have been revised as requested, as reflected in the enclosed Drainage Report.**

4. *The proposed stormwater management system appears to collect roof drainage which is then conveyed to the isolator row of the subsurface infiltration system. Since this runoff is generally considered “clean” and does not require additional treatment, the Applicant should consider routing the roof runoff directly to the infiltration chambers to avoid undue flows to the isolator row.*

**Response 4: Roof runoff has been rerouted to bypass the isolator row and be conveyed directly to the subsurface infiltration system as requested, as shown on the enclosed Site Development Plans.**

5. *Sheet 5 – Grading and Drainage Plan indicates grading at the proposed driveway. We assume it is intended to shed water to the rip-rap curb inlet; however, we expect that the proposed grading will result in substantial by-pass of the rip-rap curb inlet. The Applicant should consider additional grading notation to ensure that the parking area grading will shed water as intended.*

**Response 5: Additional detail and notation has been provided on the Grading and Drainage Plan to further define the proposed conveyance of the anticipated runoff tributary to the curb inlet. The updated Site Development Plans are enclosed with this response.**

6. *Sheet 12 – Construction Detail Sheet indicates the bottom of the proposed bioretention area to be hardwood mulch. The Applicant should consider substituting peastone as mulch tends to float and potentially clog downstream features.*

**Response 6: In accordance with MassDEP Stormwater Management Handbook guidelines, fine-shredded hardwood mulch has been specified within the bioretention area, as larger wood chips or soft wood mulch is anticipated to be more prone to floating.**

7. *The proposed bioretention area overflow device does not appear to be modeled in HydroCAD. In theory, this outlet should be located above the bottom of the basin such that the required volume of water to be treated would be required to pass through the soil media prior to discharge. Under the proposed configuration, untreated runoff may flow directly out of the basin. The Applicant should consider if any design modifications are required or provide rationale to the proposed design configuration.*

**Response 7: The intent of the proposed bio-retention system is for stormwater runoff to exfiltrate through the filter media beneath the basin and then be captured via the proposed underdrains prior to discharge. The manhole has a rim and is intended for use during routine maintenance and inspection. The bioretention area has been designed to provide the requisite Water Quality Volume, with overflow via a proposed rip rap spillway.**





8. *The Applicant should confirm that the hydraulic calculations are modeled to match the Site Plans. For example, it does not appear that the roof runoff flow and flow from CB-1 are modeled through the same pipe to the subsurface infiltration system.*

**Response 8:** The pipe sizing calculations has been updated accordingly, as shown in the enclosed Drainage Report.

9. *The required Water Quality Volume calculations for Sediment Forebay 1 reference a storage volume elevation of 998.5, while the site plans indicate 998.25. The Applicant should confirm which elevation is to be provided.*

**Response 9:** The enclosed Site Development Plans and Drainage Report have been revised to reflect the check dam weir elevation of 998.25.

10. *The following comments pertain to the Stormwater Operation and Maintenance (O&M) Plan:*

- a. *The Applicant should consider using “subsurface infiltration system” rather than “infiltration basin” to avoid future confusion with location and maintenance activities necessary. Revise infiltration basin maintenance procedures to reflect the chamber system and manufacturer recommendations. Revise to eliminate language about mowing side slopes.*
- b. *The Applicant should consider revising the maintenance provisions for the bioretention basin to include inspection and maintenance criteria for inlet channel*
- c. *A Stormwater BMP Map was not included in the O&M Plan.*

**Response 10:**

- a. **The Subsurface Infiltration System portion of the Operations and Maintenance (O&M) Plan has been revised to include maintenance activities for a subsurface infiltration system and is included in the enclosed Drainage Report.**
- b. **The Bio-Retention Basin of the O&M Plan has been revised to include inspection and maintenance of inlet channels and is included in the enclosed Drainage Report.**
- c. **An O&M Stormwater Management Practices Map has been included in Appendix G of the enclosed Drainage Report.**

Additionally, we are in receipt of a letter entitled “Notification of Wetlands Protection Act File Number” from the Massachusetts Department of Environmental Protection, dated November 19, 2018. Please find below our responses to comments within that letter. For clarity, comments from the original report is in italics below with our responses within in bold font.

1. *The Compensatory Storage plan shows both the 100 year flood plain based on the highest observed elevation as well as the approximate limit per the Flood Insurance Rate Map (FIRM). As this is a Zone A, there is no presumptive base flood elevation. The regulations state that “Where NFIP Profile data is unavailable, the boundary of Bordering Land Subject to Flooding shall be the maximum lateral extent of flood water which has been observed or recorded. In the event of a conflict, the issuing authority may require the applicant to determine the boundary of Bordering Land Subject to Flooding by engineering calculations... “. See 310 CMR 10.57(2)(a)3. Whatever elevation is to be used must be reviewed and confirmed by the commission by reviewing this section of the regulations. One cannot overlay the FIRM onto a plan as it will not be correct. Therefore, it is not clear that the Performance Standards for work in Bordering Land Subject to Flooding are met or that the Base Flood Elevation is correct.*

**Response 1:** The elevation of the Bordering Land Subject to Flooding has been established at 998.1 NAVD 1988. This elevation is based upon the maximum lateral extent of



**flood water upon consultation with the Cummington Conservation Commission and their wetland consultant, Stockman Associates LLC. The established floodplain elevation was previously established by the Conservation Commission, in consultation with Stockman Associates LLC, and shown on a record plan entitled “Site Plan” prepared by Hill Engineers, dated 3/26/2015.**

2. *Per 310 CMR 10.57(1)(a)3., certain portions of Bordering Land Subject to Flooding are also likely to be significant to the protection of wildlife habitat. These areas need to be shown on the plan and a Wildlife Habitat assessment may be required, per 310 CMR 10.57(4)(a)4. and 310 CMR 10.60.*

**Response 2:** As previously noted, the project is the redevelopment of an existing developed site and represents a net improvement to the protection of the resource areas through increased setbacks from impervious surfaces to resource areas and proposes a reduction in total impervious coverage. The majority of the project area is located within previously disturbed areas and, as previously discussed with the Commission, the project intends to revegetate and naturalize existing degraded areas. Additionally, the project has been reviewed by NHESP and a determination has been made that the project will not result in a Take of state-listed species, with conditions. Accordingly, further wildlife habitat evaluation is not believed to be appropriate for this project.

3. *The Commission needs to wait to close the public hearing until NHESP has issued its determination.*

**Response 3:** A letter stating that the project will not result in a Take of state-listed species, with conditions, has been issued by NHESP, dated December 10, 2018.

4. *Per the use of streamtats, the intermittent stream has been found to be perennial as the 99th percentile flow rate is over .01 and the watershed area is over .5 sq. miles. This information has been emailed to the parties. If the applicant wishes to rebut the perennial presumption, then the parties should review 310 CMR 10.58(2)(a)1.d. If the presumption is not overcome, then the Mean Annual High Water Line (MAHWL) must be determined and compliance with the Riverfront area performance standards must be met. When a site has a broad flood plain and BVW extending off the Bank, then it is possible the MAHWL is determined by 310 CMR 10.58(2)(a)2.b. The 50% additional filing fee is also required if the perennial presumption is not overcome.*

**Response 4:** Information relative to the Mean Annual High Water line and Riverfront Areas is reflected on the enclosed Site Development Plans. The enclosed narrative has been updated to reflect a description of Riverfront Area on-site and how the project meets the performance standards associated with 310 CMR 10.58 of the Wetlands Protection Act.

5. *If not done, test pit locations should be shown on the plan. There should be a statement in the NOI stormwater report, per Volume 3 Chapter 1 of the stormwater handbook, that the soils found on site are or are not the same as from the NRCS soils analysis. Please see Table 2.3.1.*

**Response 5:** Test pit locations have been shown on the Grading & Drainage Plan within the enclosed updated Site Development Plans. Soils on-site are generally consistent with NRCS soil analysis and a description of same is included within the narrative of the enclosed Drainage Report.



6. *The underground chamber is subject to UIC program requirements.  
<https://www.mass.gov/underground-injection-control-uic>*

**Response 6:** Comment acknowledged. Requisite applications associated with the UIC program are anticipated to be applied for prior to installation of the system.

7. *One cannot take double credit for pre-treatment BMPs, as the infiltration basin requires pretreatment in order to receive 80% TSS removal credit. The isolator row also appears to require pretreatment.*

**Response 7:** The TSS Removal calculations have been updated to reflect 80% TSS removal for the subsurface infiltration basin, inclusive of the isolator row. A deep-sump hooded catch basin and the proposed isolator row are provided as pre-treatment for the subsurface infiltration bed.

8. *Mastep.net is no longer being updated and should not be used. Please use the New Jersey web site.  
<https://www.nj.gov/dep/stormwater/>*

**Response 8:** Comment acknowledged. The enclosed Drainage Report has been updated to include the NJCAT TARP Report.

We trust the above is sufficient for your needs at this time. Should you have any questions or require additional information, please do not hesitate to contact either of us at (508) 480-9900.

Sincerely,

BOHLER ENGINEERING

Matthew Bombaci, P.E.

Austin Turner

Cc: Jean Christy, P.E., Tighe & Bond, LLC  
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