



December 30, 2025

Breeka Li Goodlander, PWS, CERPIT  
Conservation Director  
Town of Franklin Conservation Commission  
355 East Central Street  
Franklin, MA 02038

**Re: 1199 West Central Street – Garelick Farms  
MassDEP File No. 159-1322  
Notice of Intent Peer Review #2**

Dear Ms. Goodlander:

BETA Group, Inc. (BETA) has reviewed revised documents and plans for the project entitled **Garelick Farms Flood Resiliency Improvements** (the Project), located at **1199 West Central Street** (the Site) in Franklin, Massachusetts. This letter is provided to present BETA's findings, comments and recommendations.

## **BASIS OF REVIEW**

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

- Peer Review Package entitled **Response to Peer Review**; prepared by Tighe & Bond; dated December 4, 2025. Attachments include:
  - Peer Review Responses
  - Plans (9 Sheets) entitled **Garelick Farms Flooding Resiliency Improvements – Permit Drawings**; dated September 2025 and revised through December 2025; prepared by Tighe & Bond; stamped and signed by Jean Christy, MA PE No. 47080 and Wayne Edward Bates, MA PE No. 36402.
  - Memorandum entitled **Monitoring and Invasive Species Management Protocol Garelick Farms Facility**; prepared by Jean Christy, PE; dated December 4, 2025.
  - Summary of Resource Area Impacts
  - Operations and Maintenance Plan entitled **Long-Term Pollution Prevention and Stormwater Management System Operation and Maintenance Plan**; prepared by Dandreo Brothers General Contractors; dated September 2025 and revised December 2025.
  - Plan (4 Sheets) entitled **Garelick Farms Flooding Resiliency Improvements**; prepared by Tighe and Bond and Dandreo Brothers General Contractors; undated; unstamped and unsigned.
  - Drainage Structures Calculations
  - Riprap Sizing Calculations

Review by BETA included the above items along with the following, as applicable:

- Site Visit on November 3, 2025
- **Massachusetts Wetlands Protection Act 310 CMR 10.00** effective October 24, 2014
- **Massachusetts Stormwater Handbook** effective January 2, 2008 by MassDEP

- ***Stormwater Management Chapter 153 From the Code of the Town of Franklin***, Adopted May 2, 2007
- ***Wetlands Protection Chapter 181 From the Code of the Town of Franklin***, dated August 20, 1997
- ***Town of Franklin Best Development Practices Guidebook***, dated September 2016

## PEER REVIEW UPDATE—DECEMBER 30, 2025

The Applicant has provided revised materials and written comment responses pursuant to BETA's November 20, 2025 peer review letter. BETA's original comments from the November 20, 2025 peer review letter are included in plain text. Comment responses attributed to Tighe & Bond (TB), are provided in *italics* and are prefaced with "TB:" BETA's most recent responses are provided in **bold** and are prefaced with "BETA2:".

BETA's responses in this letter identify that the Applicant should provide additional (albeit minor) information to comply with the Act and the Bylaw. BETA has deferred to the Commission regarding multiple comments throughout the letter.

## SITE AND PROJECT DESCRIPTION

The Site is 51.71-acre parcel identified by the Town of Franklin Assessor's Office as Assessor's Map 275 Lot 23 located at 1199 West Central Street in Franklin, Massachusetts. The Site is bounded to the north by a railroad right-of-way, to the west by an undeveloped lot and Maple Street, and to the south and east by West Central Street. Existing conditions at the Site include the Garelick Farms facility and associated site features, undeveloped wooded areas, and wetland complexes. Topographic relief at the Site generally follows an east-to-west orientation.

Resource Areas Subject to Protection or Jurisdiction under the Massachusetts Wetlands Protection Act (M.G.L. ch.131 s.40) and its implementing regulations at 310 CMR 10.00 (collectively "the Act") and the Town of Franklin Wetlands Protection Bylaw (Chapter 181) and its associated regulations (collectively "the Bylaw") are present at the Site and include:

- Bank;
- Bordering Vegetated Wetland (BVW);
- Land Under Water (LUW);
- Bordering Land Subject to Flooding (BLSF);
- Riverfront Area; and
- Buffer Zones (25-foot No Disturbance Zone, 50-foot No Build Zone and the 100-foot Buffer Zone).

The Site is not located within any Surface Water Protection Areas (Zone A, B, or C), or Zone I, Zone II, or Interim Wellhead Protection Areas. There are no Outstanding Resource Waters (ORWs) or Areas of Critical Environmental Concern (ACEC) present, and the most recent Natural Heritage and Endangered Species Program (NHESP) mapping does not depict any Priority Habitat of Rare Species or Estimated Habitat of Rare Wildlife at the Site. There are no NHESP-mapped Certified or Potential Vernal Pools located within 100 feet of the Site.

Natural Resource Conservation Service (NRCS) soil maps indicate the presence of the following soil type at the Site: Scarborough and Birdsall soils, 0 to 3 percent slopes with a Hydrologic Soil Group (HSG) rating of A/D, Swansea muck, 0 to 1 percent slopes with a HSG rating of B/D, Whitman fine sandy loam, 0 to 3 percent slopes, extremely stony with a HSG rating of D, Charlton-Hollis-Rock outcrop complex, 3 to 8

percent slope with a HSG rating of A, Merrimac fine sandy loam, 0 to 3 percent slopes with a HSG rating of A, Merrimac fine sandy loam, 3 to 8 percent slopes with a HSG rating of A, Windsor loamy sand with an HSG rating of A, Woodbridge fine sandy loam, 3 to 8 percent slopes with a HSG rating of A, Canton fine sandy loam with a HSG rating of B, and Udorthents, sandy with a HSG rating of A.

Work proposed as a part of the Project includes the following activities:

- Installation of erosion and sedimentation controls;
- Mobilization at the Site and staging of material;
- Installation of the 36" drainage pipe, deep sump catch basins, and manholes;
- Construction of the outfall;
- Backfilling of excavated trenches;
- Repaving and stabilization of trenches excavation limits;
- Construction of a headwall and outfall;
- Cleaning and testing of the drainage pipe;
- Stabilization/restoration of temporarily impacted areas;
- Installation of restoration plantings; and
- Demobilization and site cleanup.

The Project will result in the following impacts to Resource Areas:

- 6,605 square feet (sf) of temporary and 50 sf of permanent impacts to RA;
- 1,556 sf of temporary and 50 sf of permanent impacts to the 0-25-foot No Disturbance Zone;
- 2,903 sf of temporary impacts to the 25-50-foot No Build Zone; and
- 2,983 sf of temporary impacts to the 50-100-foot Buffer Zone.

**BETA2: Impacts have been updated to include the following:**

- **7,334 sf of temporary and 230 sf of permanent impacts to RA; and**
- **8,756 sf of temporary and 5,986 sf of permanent impacts to Buffer Zone.**

## ADMINISTRATIVE AND PLAN COMMENTS

The plan set (as identified above) is missing information and requires additional information for clarity.

**Table 1. NOI Plan**

NOI Plan Requirements	Yes	No
Scale of 40'=1" or larger	✓	
North Arrow (with reference)	✓ (BETA2)	
Topographic contours (2' intervals)	✓	
Existing Conditions Topography (with source and date of survey)	✓	
Proposed Topography	✓	
Existing and Proposed Vegetation		✓ (See Comment A2.b)
Existing Structures and Improvements	✓	
Resource Areas and Buffer Zones labeled	✓	
Location of Erosion Controls	✓	
Details of Proposed Structures	✓	
Construction Sequence and Schedule	✓ (BETA2)	
Registered PLS Stamp (Existing Condition Plans Only)		✓ (See Comment A2.d.)

Assessors' Reference	✓	
Abutting Property Assessors' Reference	✓	
Survey Benchmark	✓ (BETA2)	
Accurate Plan Scale	✓	

## PLAN AND GENERAL COMMENTS

- A1. The Massachusetts Department of Environmental Protection (MassDEP) has not issued a file number as of this writing.

*TB: MassDEP issued a file number the same day as BETA's letter without comment. The File No. is CE 159-1322*

- A2. The following elements are missing from the provided Plan Set:

- a. A north arrow reference should be provided on the plans per Bylaw Regulations Section 7.18.1.3.

*TB: This information has been added to the plan set.*

**BETA2: Comment addressed.**

- b. Existing and proposed vegetation referenced in Bylaw Regulation Section 7.18.1.5 and 7.18.1.6 should be included on the plans, including individual trees/shrubs with a diameter greater than 1" proposed for removal. It is BETA's understanding that the Commission generally increases the size threshold for tree location based on the Project and therefore defers to the Commission on this matter. The existing and proposed tree line should be shown, and the proposed trees located along the limits of trenching should be qualified as being either removed or retained.

*TB: This information has been added to the plan set.*

**BETA2: Comment remains. The existing/proposed conditions tree lines are not depicted along the northern portion of the Site adjacent to the 1A Wetland Series where trees are present. The existing conditions plan appears to show a tree line in this area, but it does not encompass the locations of the individual trees that are depicted. The site plans depict a tree line in this area with a proposed conditions line weight, but it does not appear to correlate with the proposed clearing for the headwall. The tree lines should be revised as appropriate.**

- c. A Construction Sequence with all proposed activities within Jurisdictional Areas should be provided on the plans per Bylaw Regulations Section 7.18.1.14.

*TB: This information has been added to the plan set on sheet G-003.*

**BETA2: Comment addressed.**

- d. A PLS stamp should be provided on the existing conditions plan.

*TB: The existing conditions plan was not based solely on a land survey provided by a Professional Land Surveyor. Additional data sources, including site plans provided by Garelick Farms, drone survey, partial survey of the existing drainage infrastructure, ground-penetrating radar information, and MassDOT plans were referenced in the development of site plans. We request a waiver of this requirement.*

**BETA2: BETA defers to the Commission on the requirement to include a PLS stamp on the existing conditions plan.**

- e. A survey benchmark should be provided on the plans.

*TB: A benchmark has been added to sheets C-102 and C-201.*

**BETA2: Comment addressed.**

## WETLAND RESOURCE AREAS AND REGULATORY REVIEW

BETA has completed a regulatory review of the Site and the submitted documents and plans, focusing on compliance with jurisdictional regulations set forth in the Act and Bylaw. The Project proposes impacts to onsite areas Subject to Jurisdiction and Protection under the Act and Bylaw including Riverfront Areas, and the 0-25-foot, 25-50-foot, and the 50-100-foot Buffer Zone to Bank and BVW.

The NOI application includes narrative information describing the Project. A variance request has been submitted for work within the 0-25-foot and 25-50-foot Buffer Zones. For work with RA the Performance Standards at 310 CMR 10.58(5) - Redevelopment Within Previously Developed Riverfront Area - are being used. Proposed mitigation for impacts includes the installation of plantings within the 0-25-foot Buffer Zone in the southern and northern section of the Site, use of erosion controls, stabilization using native seed mix, restoration of 50 sf of RA, and stormwater management improvements.

For full compliance with the Bylaw and Act, revisions to the plans are required and information as detailed in this peer review should be submitted. The Applicant should also submit further information regarding the should provide plan revisions and further information as described in this letter to comply with the Act and Bylaw.

**BETA2: The Applicant has provided additional/revised information on the Project pursuant to BETA's peer review letter. Information including updated plans, invasive species management, monitoring of restoration plantings, and proposed plantings and seed mixes have been provided. BETA has deferred to the Commission on select topics based on responses from the Applicant, including the requirement to include a PLS stamp on the plans, the location and type of proposed erosion controls, the seed mix that will be used to stabilize the Site, the invasive species control plan, and the proposed restoration approach.**

**At this time, it is recommended that the Applicant confirm that the RA restoration area is commensurate with the new area of reported RA impacts prior to the issuance of an Order of Conditions.**

### RESOURCE AREA BOUNDARY COMMENTS

- W1. BETA completed a review of the onsite Bank/MAHW and BVW delineation. Bank/MAHW is apparent based on topographic relief and has been accurately delineated. In addition, BETA concurs with the BVW delineation depicted on the plans and located along the 1B/1C Series stream. Generally, the BVW was observed at the toe of slope, where vegetation communities changed from FACU/FAC species to FAC/FACW/Obligate species. Soils within the wetland were observed to have apparent depletions/redoximorphic concentrations and qualifies as a Depleted Under Dark Surface indicator. No other additional areas of BVW were observed at the Site within 100 feet of the proposed work.

*TB: No response required.*

## CONSTRUCTION COMMENTS

- W2. Erosion and sedimentation controls should be depicted on either side of the limits of work throughout the Buffer Zone / RA and downgradient of the proposed plantings within Buffer Zone / RA.

*TB: Erosion and sediment controls have been added to the plan set per the above recommendations.*

**BETA2: Erosion controls are now depicted along the limits of work throughout the Buffer Zone/RA in locations that will prevent sedimentation to Resource Areas. The Commission could consider including a Special Condition requiring additional erosion controls to be kept on Site to ensure that additional controls can be installed if deemed necessary.**

- W3. Proposed erosion and sedimentation controls include use of silt fence and straw wattles. Silt fence and straw are not permitted erosion control measures in the Town of Franklin (Pg. 13 of Town of Franklin Best Development Practices Guidebook). The Applicant should coordinate with the Conservation Commission to determine the appropriate erosion control measures for the Site. Twelve (12)-inch diameter compost filter tubes may be an appropriate option commensurate with the scope of the Project.

*TB: Page 13 of the Town of Franklin Best Development Practices Guidebook states that "The Conservation Commission only allows the use of straw wattles and filter mitts as erosion control barriers." The erosion control detail has been revised to remove the silt fence component of the erosion control system, as reflected on sheet C-501, and straw wattles are proposed for erosion and sediment control.*

**BETA2: BETA defers to the Commission on the approval of the use of straw wattles as erosion controls, as they have discouraged their use in recent years. The use of silt fence and hay/straw bales is referenced within the soil stockpile detail on page C-501 within Section 3.3 of the O&M Plan and should be revised accordingly.**

- W4. Resource Area impacts (both permanent and temporary) should be clearly depicted on the plans. The Applicant should confirm if Bank impacts are required as work (including limits of work/erosion and sedimentation control installation) appears to overlap with Bank along flag 1F-3.

*TB: The project plans show all permanent and temporary work proposed within resource area buffer zones. Erosion controls are the only impacts proposed within 1 foot of the Bank in the area referenced above and impacts to the Bank itself are not anticipated as a result of erosion control installation and removal. Impacts associated with grading in the vicinity will be limited to areas upland of the resource area. Direct impacts to the Bank are not anticipated.*

**BETA2: This comment has been addressed with regard to potential Bank impacts. However, the depiction of Resource Area impacts on the plans has not been addressed. In lieu of callouts, the Applicant could consider including the impacts table from the comment response letter on the plans.**

- W5. The limit of existing pavement and vegetated shoulder should be labeled on the plans adjacent to the location where work is proposed.

*TB: Labels have been added to the Site Plans for the limits of existing pavement and vegetative shoulders. See sheet C-102.*

**BETA2: Comment addressed.**

## MITIGATION COMMENTS

- W6. The Applicant should state if vegetation will be removed within Resource Areas or Buffer Zone to complete the Project. Vegetation was observed in the locations where the headwall, outfall, and portions of the pipe are proposed.

*TB: Selective clearing and grubbing of vegetation will be required within Buffer Zone for the installation of the proposed headwall, outfall, and portions of proposed pipe. Removal of trees is not anticipated to be required for this work. A callout has been added to the drawings on sheet C-201 to identify this work.*

**BETA2: Comment addressed.**

- W7. Provide specifications of the proposed seed mixture(s) for stabilization of disturbed areas within Buffer Zone and RA on the plans.

*TB: The specifications of the proposed seed mixture for stabilization of disturbed areas within Buffer Zone and RFA are depicted on sheet C-201 of the revised site plans.*

**BETA2: Comment addressed.**

- W8. A Planting List with information including species of plantings and number of plantings proposed at the Site should be included on the plans.

*TB: A Planting List with information including species and number of plantings proposed at the Site is depicted on sheet C-201 of the revised site plans.*

**BETA2: Comment addressed.**

- W9. A monitoring protocol should be submitted by the Applicant for the proposed mitigation plantings that includes monitoring frequency, corrective actions, metrics for success, and reporting schedule. These plantings (including areas of seeding) should be monitored for two (2) growing seasons to confirm successful establishment.

*TB: A Monitoring Protocol has been prepared and is provided in Attachment 2.*

**BETA2: BETA recommends the Commission include a Special Condition requiring plantings to be replaced if observed as dead/dying for more than one growing season.**

- W10. Invasive species including Norway maple (*Acer platanoides*), bittersweet (*Celastrus orbiculatus*), Japanese stiltgrass (*Microstegium vimineum*), and callery pear (*Pyrus calleryana*) were observed within the area where the pipe and outfall are proposed within the 100-foot Buffer Zone. The Applicant should provide information on how invasive species will be managed to ensure no further spread occurs during and after construction, and that any post-construction restoration is successful.

*TB: The proposed Monitoring Protocol provided in Attachment 2 addresses the proposed invasive species management within the footprint of the proposed pipe and outfall installation (within the 100-foot Buffer Zone).*

**BETA2: The Applicant has provided an invasive species control plan that outlines proposed control methods during and post-construction. The Applicant should confirm if herbicide treatment will be used. BETA defers to the Commission on the approval of this plan.**

## WPA PERFORMANCE STANDARDS COMMENTS

The Project proposes permanent impacts to the onsite Riverfront Area and 100-foot Buffer Zone. The Performance Standards at 310 CMR 10.58(5) are being referenced for compliance with RA Performance Standards due to the Site's degraded/previously developed status.

- W11. Erosion controls, grading, and the limit-of-work are depicted within 1 foot of the Banks delineated as 1F-1 through 1F-3 and 1E-4. The Applicant should state if Bank impacts are proposed as a result of construction of the headwall. If impacts are not proposed the Applicant should provide information on how Bank and LUW will be protected during construction.

*TB: Erosion controls are the only impacts proposed within 1 foot of the Bank in the area referenced above and impacts to the Bank itself are not anticipated as a result of erosion control installation and removal. Earthwork and grading are proposed at a minimum distance of 3.5 feet from the Top of Bank in this area, and impacts associated with this work will be limited to areas upland of the resource area. Impacts to the Bank are not anticipated as a result of grading in the vicinity.*

**BETA2: The Applicant has provided reasonable surety with this response that Bank impacts will be avoided; comment addressed.**

### RIVERFRONT AREA (310 CMR 10.58)

- W12. Work within RA includes the installation of the headwall and installation of plantings along the southern side of the stream and within the Buffer Zone Mitigation Area. The Applicant should confirm if impacts associated with installation of plantings have been quantified as a part of the RA and Buffer Zone impacts.

*TB: The Massachusetts WPA Riverfront Area General Performance Standards 10.58(4)(d)(1)(d) states "the calculation of square footage of alteration shall exclude... any area of restoration within the riverfront area." We are of the opinion that restoration plantings themselves don't count against the maximum square footage threshold for work in RFA and aren't considered a new or net alteration. As such, impacts associated with the installation of plantings have not been quantified as a part of the RA impacts, but are included in the revised Buffer Zone impacts included herein as Attachment 3.*

**BETA2: Upon further review, BETA acknowledges and agrees with TB's approach to quantifying RA impacts. Comment addressed.**

- W13. The Applicant should provide further information regarding the location where restoration of RA is proposed, including existing conditions (e.g., vegetative community) to ensure that restoration is in-kind with existing conditions.

*TB: The proposed RA restoration is located adjacent to the 1-F-F flag series. This portion of the site and existing RA is currently landscaped and mulched. Existing vegetation includes a mix of non-native and native small shrubs and perennials. The proposed installation of inkberry holly (*Ilex glabra*) in this area is intended to provide a more natural and native landscape. The proposed plantings have been selected due to the highly adaptable nature of the species, and the ecological*

*benefits related to the plant's berries (food source for wildlife). The plant is also a larval host plant for the Henry's elfin butterfly.*

**BETA2: Permanent impacts to RA have increased from 50 sf to 230 sf according to Table 5-1 Summary of Resource Area Impacts. The Applicant should provide the total area of restoration to ensure that sufficient restoration is being provided for the updated impact totals. In addition, BETA notes that the "New England Native Warm Season Grass Mix" or similar seed mix should be applied to all restoration areas.**

- W14. If the Commission determines the Project is permissible under 310 CMR 10.58(5) then a Special Condition within the Order of Conditions should be included as required under 310 CMR 10.58(5)h that prohibits further alteration within the restoration or mitigation areas, except as may be required to maintain the area in its restored or mitigate condition, and prior to requesting the issuance of the Certificate of Compliance, the Applicant shall demonstrate the restoration or mitigation area has been successfully completed for at least two growing seasons.

*TB: The Applicant acknowledges this comment and is amenable to such a condition.*

**BETA2: No further comment required.**

#### **BYLAW REGULATORY COMMENTS**

- W15. A USGS Topographic Map, a Natural Heritage and Priority Habitats and Estimated Habitats Maps, and a FEMA Flood Plain map are required for NOI submissions to the Franklin Conservation Commission per Bylaw Section 7.17.1.

*TB: A USGS Topographic Map, a Natural Heritage and Priority Habitats and Estimated Habitats Maps, and a FEMA Flood Plain map were all submitted as part of the NOI Application Package submitted to the Commission dated September 2025. Refer to Appendix A of the NOI for these materials.*

**BETA2: No further comment required.**

- W16. The Applicant should provide the Construction Sequence on the plans per Bylaw Section 7.15.

*TB: This information has been added to the plan set on sheet G-003.*

**BETA2: Comment addressed.**

- W17. The Erosion and Sediment Control Plan should include a description of the measures that will be taken to properly install and maintain the erosion control devices used during the Project and include the requirement that the erosion control will be inspected weekly and all other criteria set forth in Bylaw Regulation Section 7.12.

*TB: The Soil Erosion and Sediment Control (SESC) Plan has been revised to include all criteria set forth in Bylaw Regulation Section 7.12. A revised Soil Erosion and Sediment Control Plan is attached as Attachment 4.*

**BETA2: Comment addressed.**

- W18. The Applicant submitted a Variance request for the work proposed within the 0-25-foot Buffer Zone and the 25-50-foot Buffer Zone. BETA defers to the Commission on the issuance of this waiver.

*TB: No response required.*

**BETA2: No further comment required.**

## STORMWATER MANAGEMENT REVIEW

The proposed stormwater management design consists of providing a redundant 36-inch drainpipe to supplement the existing 48-inch drainpipe that currently conveys stormwater to wetlands on the northeast side of the existing building. The additional pipe is designed to alleviate localized flooding that occurs during high-intensity rain events. The design also includes three (3) deep-sump, hooded catch basins that will tie into the proposed 36-inch RCP run. Runoff discharges to a new outfall and accompanying riprap on the northeast side of the existing building.

### GENERAL

- SW1. Provide a plan to accompany the hydraulic calculations (pipe sizing) showing the areas flowing to each catch basin/pipe.

*TB: Existing and proposed drainage area maps are attached as Attachment 5.*

**BETA2: Existing and proposed drainage area maps were provided. Comment addressed.**

- SW2. The hydraulic analysis indicates that all proposed pipes are HDPE. Revise to indicate RCP.

*TB: The hydraulic analysis has been revised to indicate RCP. A revised analysis is attached as Attachment 6.*

**BETA2: Hydraulic analysis revised. Comment addressed.**

- SW3. The flared end section at the end of the proposed 36-inch pipe run discharges to a 3:1 ( $\pm$ ) slope. Additionally, the flared end section is oriented at an angle that is not perpendicular to the slope, which will render the riprap less effective. BETA recommends that the angle of the outlet pipe be reevaluated, and a concrete headwall be utilized to provide an effective flat area where the riprap can dissipate flows and prevent scouring.

*TB: The location of the proposed outfall was selected based on the required outfall elevation and relative proximity of the nearby wetland resource area. A system outlet elevation of 220.0 is required based on upstream drainage system elevations, as well as hydraulic pipe capacities. A perpendicular orientation of the proposed flared end section cannot be achieved at elevation 220.0 without direct impacts to wetlands. However, a winged headwall has been added to the project plans to allow for a flatter grade at the outlet, and adjustments to the riprap outfall protection configuration have been made. See sheet C-201 for updated outfall information.*

**BETA2: The outfall design has been revised. Comment addressed.**

- SW4. Recommend providing a detail for the replacement of curb on site.

*TB: A detail for the replacement of curbing has been added to sheet C-501.*

**BETA2: Detail provided. Comment addressed.**

- SW5. Provide an existing and proposed drainage area map showing drainage areas and stormwater flow paths (§153-15.A.(2)). Soil boundaries should also be displayed on the map.

*TB: Existing and proposed drainage area maps, displaying soil boundaries, are attached as Attachment 5.*

**BETA2: Existing and proposed drainage area maps were provided. Comment addressed.**

## **MASSDEP STORMWATER STANDARDS**

The Project as proposed must comply with the Massachusetts Stormwater Standards as outlined by MassDEP. Compliance with these standards is outlined below:

### **LOW IMPACT DEVELOPMENT (LID) TECHNIQUES**

No LID measures are proposed.

*TB: No response required.*

**NO UNTREATED STORMWATER (STANDARD NUMBER 1):** *No new stormwater conveyances (e.g., outfalls) may discharge untreated stormwater directly to or cause erosion in wetlands or waters of the Commonwealth.*

The project proposes a new outlet to wetlands that is equipped with a riprap outfall to prevent scouring. Additional calculations are required; Standard 1 is outstanding.

SW6. Provide riprap/outfall sizing calculations.

*TB: Riprap/outfall sizing calculations are attached as Attachment 7.*

**BETA2: Calculations were provided. Comment addressed.**

**POST-DEVELOPMENT PEAK DISCHARGE RATES (STANDARD NUMBER 2):** *Stormwater management systems must be designed so that post-development peak discharge rates do not exceed pre-development peak discharge rates.*

The Project proposes to alleviate localized flooding during high intensity storm events by providing a redundant 36-inch drainpipe to supplement the existing system and provide backup conveyance to the wetlands north of the existing building. Calculations indicate a decrease in peak discharge rate to all points of analysis. Standard 2 is met.

*TB: No response required.*

**RECHARGE TO GROUNDWATER (STANDARD NUMBER 3):** *Loss of annual recharge to groundwater should be minimized through the use of infiltration measures to maximum extent practicable.*

NRCS soil maps indicate that soils in the location of the proposed work are Udorthents, sandy with a hydrologic group rating (HSGR) of A (high infiltration potential), Scarboro and Birdsall soils with a HSG of A/D, and Swansea muck with a HSG of B/D. The Applicant has conducted five (5) test borings at the Site indicating the subsurface soils are predominantly fill at varying depths overlying glacial till. Groundwater was not noted during the test borings.

Groundwater recharge is not proposed as part of the Project as the intent of the design is to alleviate localized flooding on the site. Standard 3 is met to the greatest extent practicable.

*TB: No response required.*

SW7. While the proposed 36-inch pipe is intended to convey floodwaters during high-intensity storm events, it will predominantly carry low flows from the parking areas under typical conditions. As the project includes a new outfall to a wetland resource area, BETA recommends that the Applicant evaluate the proposed system's ability to achieve the Total Suspended Solids (TSS) and

Total Phosphorus (TP) utilizing infiltration measures. Treatment area would be considered areas that flow to the basins and not the entirety of the project site.

*TB: Infiltrative measures were considered as part of an alternatives analysis during preliminary design development. However, they were ultimately determined to be infeasible due to the highly developed nature of the project site. The complex subsurface utility system existing on-site would require utility relocation in order to site infiltrative features, which would interrupt routine plant operations and present an undue burden on the Applicant.*

**BETA2: Comment addressed.**

**TOTAL SUSPENDED SOLIDS (STANDARD NUMBER 4):** For new development, stormwater management systems must be designed to remove 80% of the annual load of Total Suspended Solids (TSS).

The project includes the following treatment train:

Treatment Train	SCM 1	SCM 2	SCM 3	TSS Removal %
A	Deep Sump Catch Basin			25%

The project discharges stormwater runoff to wetlands northeast of the existing building, which discharges to Mine Brook. Mine Brook (segment MA72-14) is listed as a Category 5 water, which requires a Total Maximum Daily Load (TMDL) as listed in the Massachusetts Year 2022 Integrated List of Waters. The impairments for this segment of Mine Brook include E.coli and temperature – both impairments that do not require a TMDL reduction associated with them.

The Project has been designed to provide 25% TSS removal by replacing three (3) existing catch basins with new deep-sump hooded catch basins. Given that the project qualifies as a redevelopment as there is no increase in impervious area, Standard 4 is met to the greatest extent practicable.

*TB: No response required.*

**HIGHER POTENTIAL POLLUTANT LOADS (STANDARD NUMBER 5):** Stormwater discharges from Land Uses with Higher Potential Pollutant Loads (LUHPPLs) require the use of specific stormwater management BMPs.

The proposed use is considered a LUHPPL. Given the project qualifies as a redevelopment, Standard 5 is met to the greatest extent practicable.

*TB: No response required.*

**CRITICAL AREAS (STANDARD NUMBER 6):** Stormwater discharges to critical areas must utilize certain stormwater management BMPs approved for critical areas.

The project is located outside of any MassDEP wellhead protection areas, including Zone I, II, and any interim Wellhead Protection Areas. Standard 6 is not applicable.

*TB: No response required.*

**REDEVELOPMENT (STANDARD NUMBER 7):** Redevelopment of previously developed sites must meet the Stormwater Management Standards to the maximum extent practicable.

The project does qualify as a redevelopment as the pre- and post-development impervious areas will be the same. Standard 7 is met by improving existing conditions.

*TB: No response required.*

**EROSION AND SEDIMENT CONTROLS (STANDARD NUMBER 8):** *Erosion and sediment controls must be implemented to prevent impacts during construction or land disturbance activities.*

As the project proposes to disturb greater than one acre of land, a Notice of Intent with EPA and local Conservation Commission was submitted, and a Stormwater Pollution Prevention Plan (SWPPP) will be developed prior to construction beginning. Erosion controls are indicated on the plans including stockpile areas and construction tracking pad. A basic construction sequence and estimated dates are included in Section 2 of the Stormwater management report. Standard 8 requires minor revisions to be met.

SW8. Provide catch basin inlet protection and perimeter controls on the Existing Conditions & Site Preparation Plan.

*TB: No response required.*

**BETA2: The plans have been revised as requested. Comment addressed.**

SW9. Indicate that proposed catch basins will be equipped with inlet protection once installed until the end of construction.

*TB: No response required.*

**BETA2: The plans have been revised as requested. Comment addressed.**

**OPERATIONS/MAINTENANCE PLAN (STANDARD NUMBER 9):** *A Long-Term Operation and Maintenance Plan shall be developed and implemented to ensure that stormwater management systems function as designed.*

A Long-Term Stormwater Operation & Maintenance Plan was included in Appendix F of the Stormwater Management Report. The O&M Plan indicates responsible parties for the project, routine and non-routine maintenance tasks, and inspection criteria. The O&M Plan also provides guidance on long-term pollution prevention practices for the project. Standard 9 is met.

*TB: No response required.*

**ILLICIT DISCHARGES (STANDARD NUMBER 10):** *All illicit discharges to the stormwater management system are prohibited.* A signed Illicit Discharge Compliance Statement was not provided with the submission. The Stormwater checklist indicates that one will be provided prior to the commencement of construction. Standard 10 is met, pending receipt of the signed illicit discharge statement,

SW10. Provide a signed illicit discharge statement.

*TB: We request that the Commission consider a condition of approval requiring that the signed Illicit Discharge Statement be provided prior to construction.*

**BETA2: BETA defers to the Commission on including this as a Condition of Approval.**

## REVIEW SUMMARY

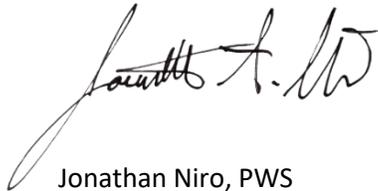
Based on our review of the NOI submittal and Project plans, the Applicant should provide minor additional information to comply with the Act and the Bylaw.

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

Very truly yours,  
BETA Group, Inc.



Anna Haznar  
Staff Scientist



Jonathan Niro, PWS  
Project Manager



Steven Lee, PE, SE  
Senior Project Engineer

cc: Amy Love, Town Planner