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FEBRUARY 21, 2025

Bellingham Conservation Commission
Municipal Center
10 Mechanic Street
Bellingham, MA 02019

Re: Prospect Hill Village (DEP File No. 108-968)
Off Lake Street/ Prospect Street
Map 69, Parcel 87 and Map 65 Parcels 20, 22, 22-01, 22-02
Bellingham, Massachusetts

Dear Hannah Chace and Members of the Bellingham Conservation Commission:

BSC Group, Inc. (BSC) has reviewed the Application, plans, and other materials related to the Notice of Intent (NOI) submission for the proposed construction of 129-unit residential development with associated roadway crossings, utilities and wetland mitigation at the above-refenced parcels in Bellingham, Massachusetts. The proposed work will include activities within Riverfront Area, Bordering Vegetated Wetlands, Isolated Vegetated Wetlands and the 100-Foot Buffer Zone to Inland Bank and wetlands.

The Notice of Intent (NOI) was filed under the Massachusetts Wetlands Protection Act (M.G.L. c.131 §40, the WPA) and its implementing regulations (310 CMR 10.00 et seq., the WPA Regulations), and the Town of Bellingham's Wetlands Protection Bylaw and its implementing regulations (Chapter 235 and 247) by Louis Petrozzi of Wall Street Development Corp. (the Applicant), represented by Paul McManus of Eco Tec, Inc. (the Representative).

Documents Reviewed

This peer review includes:

- Amended Notice of Intent for Prospect Hill Village, Special Permit – 156 Unit Town House Development dated October 14, 2024.
- Special Residential Townhouse Development Plan "Prospect Hill Village" A Multi-Unit Residential Development, Bellingham, MA prepared by GLM Engineering Consultants, Inc. Dated November 30, 2023, revised through January 30, 2025.
- Project Narrative and Compliance Assessment and Riverfront Area Alternatives Analysis to Accompany Notice of Intent, Proposed Prospect Hill Village Prospect Street Bellingham, MA prepared by Eco Tec, Inc. Dated February 3, 2025.
- Wetland Replication Protocol, Prospect Hill Village, Bellingham, MA (DEP File No. 105-940) prepared by Eco Tec, Inc. Dated February 3, 2025.
- Proposed Construction Sequence Prospect Hill Village – Bellingham, Ma Dep File No. 108-968 Construction of Roadway Crossing, Utilities & Wetland Replication Area Dep File No. 338-0441, prepared by Eco Tec, Inc. Dated February 3, 2025.
- Application for Permit Bellingham Wetlands Protection Bylaw & Regulations prepared by Wall Street Development Corp. dated October 15, 2024.
- Stormwater Management Report, Special Residential Townhouse Development Prospect Hill Village dated November 30, 2023, revised through July 14, 2024.

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General Project Review Comments

BSC reviewed materials submitted for review by the Project Representative and publicly available GIS data using MassGIS OLIVER (maps.massgis.state.ma.us) including the current USGS topographic map, Wellhead and Surface Water Protection Areas, FEMA Flood Zone maps, NHESP Estimated and Priority Habitat mapping and Certified and Potential Vernal Pools data, US Department of Agriculture soils data, Areas of Critical Environmental Concern (ACECs), Outstanding Resource Waters (ORWs), and Public Water Supply resources.

BSC Senior Wetland Scientist Paul Knapik conducted a field visit to review the site and resource area delineations on January 2, 2025.

Based on our review of these materials, as well as our field evaluation of wetland resources on the Project Site, we offer the following comments:

Comment 1: There are several mapped resource areas subject to regulatory jurisdiction under the Wetlands Protection Act, Bellingham's Wetlands Protection Bylaw, and/or other state and local regulations, which should be considered when evaluating project impacts, regulatory compliance and proposed mitigation.

1. DEP's Zone II Wellhead Protection: The majority of the project area is located within DEP's mapped Zone II Wellhead Protection Area.
2. MassDEP's Estimated Public Drinking Water System Service Area Boundaries: The majority of the project area is located within mapped Community Public Water System Service Area delineated by MassDEP Water Utility Resilience Program.
3. Public Water Supply Wells: The project area is located upstream of five (5) public water supply wells (GP Wells #1.1, #2.1, #2.2, #2.3 and #2.4 located on Cross Street).
4. Bellingham's Water Resource District: The project area is located within Bellingham's mapped Water Resource District.
5. Certified Vernal Pools: There is a certified vernal pool located in Wetland-DE on the Franklin-Bellingham town line, with overlap of the vernal pool and associated buffer zone in both municipalities. Certified Vernal Pools and the associated 100-foot buffer zone are regulated Vernal Pool Habitat under the Wetlands Protection Act and local bylaw.

Comment 2: There are several mapped areas that should be considered when evaluating the functions and values of onsite resource areas and buffer zones and suggest that the site in its current condition provides significant wildlife habitat.

1. Potential Vernal Pools - There is one (1) mapped potential vernal pool on site and several isolated vegetated wetlands and isolated land subject to flooding throughout the site which may provide vernal pool habitat.
2. Adjacent Potential and Certified Vernal Pools - There are numerous certified and potential vernal pools adjacent to the site which suggest that this area plays a role in maintaining amphibian species populations in the form of upland habitat, winter habitat, and migration corridors between different vernal pools and upland habitats. This also suggests that the site may have unmapped vernal pools on site that should be identified before a permit is issued.
3. DFW Coldwater Fisheries Resource: Hoag Brook is a mapped Coldwater Fisheries Resource and any proposed development in proximity to this resource areas should be designed to avoid negative impacts to this sensitive resource area. Negative impacts of particular concern are changes to the water chemistry, volume and temperature, as well as maintaining canopy cover and natural buffer zones.
4. Aquifer: The north and west sides of the project area are located within a mapped medium and high yield aquifer.

Comment 3: BSC notes that all delineations and peer review site visits have been conducted outside of the vernal pool season, and all delineations have been conducted in June and July of 2019 and October of 2023, with some reflagging in April of 2022 and January/February of 2024.

BSC recommends that the entire site be evaluated for vernal pool habitat between April and May. A report should be provided with sufficient time for a qualified scientist to corroborate the findings in that report with a site visit during the active vernal pool season (no later than mid-May).

Additionally, wetlands DE and SE were not reflagged in 2024 due to flooding. DE is a Certified Vernal Pool and the area should be evaluated to determine whether the edge of flooding is a more accurate representation of the vernal pool boundary.

Comment 4: It is the Applicant's burden to provide sufficient information to describe the site and the proposed activities, quantify the direct and indirect impacts to resource area, and demonstrate the project's compliance with all applicable regulations (310 CMR 10.03(1)(a)1-3). Additional information is required to determine compliance under the WPA and Bellingham's Wetlands Protection Bylaw.

Comment 5: The Commission possesses the discretion to deny any project or activity that will alter a resource area or buffer zone (§ 247-11(A)). The Applicant should provide a project narrative and supporting document/plans to sufficiently describe the project's compliance with the performance standards for each resource area under the Bellingham Wetlands Protection Bylaw and implementing regulations.

At a minimum, the Applicant should provide documentation of project compliance under:

- § 247-11. Alternatives analyses for impacts proposed to all resource areas.
- § 247-19. Banks.
- § 247-20. Vegetated wetlands.
- § 247-21. Land under water bodies (under any stream, pond or lake).
- § 247-22. Land subject to flooding (bordering and isolated).
- § 247-23. Vegetation removal and replacement.
- § 247-24. Buffer zone.
- § 247-25. Vernal pool, associated 100-foot buffer zone and no-disturbance zone.
- § 247-29. Plan requirements.
- § 247-33. Stormwater compliance.

Resource Area Comments

Isolated Land Subject to Flooding under the Act (10.57(2)(b)1)

The wetland report states that Wetlands B, AE/(E), and DE consist of Isolated Vegetated Wetlands, and that they may meet the criteria for state regulated under Section 10.57(2)(b)1 Isolated Land Subject to Flooding. "Isolated Land Subject to Flooding is an isolated depression or closed basin without an inlet or an outlet. It is an area that at least once per year confines standing water to a volume of at least ¼ acre-feet and to an average depth of at least six inches." Engineering calculations should be performed in accordance with 310 CMR 10.57(2)(b) and the ILSF Definition Policy issued January 25, 1985 and revised March 1, 1995 to determine if this area meets the definition of Isolated Land Subject to Flooding under the Act. If the calculations demonstrate that this area qualifies, it would be regulated as Isolated Land Subject to Flooding under the Act. Section 10.57(2)(b)3. states that "The boundary of Isolated Land Subject to Flooding is the perimeter of the largest observed or recorded volume of water confined in said area. In the event of a conflict of opinion regarding the extent of water confined in an Isolated Land Subject to Flooding, the applicant may submit an opinion by a registered professional engineer, supported by engineering calculations, as to

the probable extent of said water." If this area does not qualify as Isolated Land Subject to Flooding, it would not be subject to jurisdiction under the Act.

Comment 6: The applicant has included a 100-foot buffer zone around each wetland in accordance with the local bylaw and has labeled Wetlands B and E as Isolated Land Subject to Flooding, however, it is not clear whether engineering calculations have been run to determine whether they are jurisdictional under the WPA as Isolated Land Subject to Flooding.

Comment 7: There is no discussion about whether these areas provide vernal pool habitat. BSC recommends that this area be reviewed during vernal pool season.

The wetland report states that Wetlands DB, DF, G, and H consist of Isolated Vegetated Wetlands and that based upon field observations, the potential ponding area appears to be too small to hold the requisite volume and depth of water to be regulated as Isolated Land Subject to Flooding under the Act (10.57(2)(b)1).

Comment 8: The applicant has included a 100-foot buffer zone around each wetland in accordance with the local bylaw, but it is not clear whether engineering calculations have been run to determine whether these IVWs are jurisdictional under the WPA as Isolated Land Subject to Flooding.

If IVW-G and H are found to be Isolated Land Subject to Flooding, proposed work will need to comply with the performance standards for section 10.57(4)(b) and (c), including:
A proposed project in Isolated Land Subject to Flooding shall not result in the following:

1. Flood damage due to filling which causes lateral displacement of water that would otherwise be confined within said area.
2. An adverse effect on public and private water supply or ground water supply, where said area is underlain by pervious material.
3. An adverse effect on the capacity of said area to prevent pollution of the groundwater, where the area is underlain by pervious material which in turn is covered by a mat of organic peat and muck.
4. An impairment of its capacity to provide wildlife habitat where said area is vernal pool habitat, as determined by procedures contained in 310 CMR 10.60.

Based on Massmapper, IVW-G may be partially or complete located within a mapped aquifer, in addition to being located within completely within DEP's Zone II Wellhead Protection, MassDEP's Estimated Public Drinking Water System Service Area Boundaries and Bellingham's Water Resource District, therefore this area should be carefully reviewed to ensure compliance with 10.57(4)(b)(2) and (3).

Comment 9: The applicant proposes to fill 18.090 sf of Isolated Vegetated Wetlands (IVW-H: 1,230 sf and IVW-G: 16,860 sf). This will require additional permitting, including but not limited to: 401 WQC (314 CMR 9.04(1), (3) and/or (6)), USACE - Section 404 of the Clean Water Act, and MEPA review (301 CMR 11.03(3)(b)(1)d).

Comment 10: There is no discussion about whether these areas provide vernal pool habitat. BSC recommends that this area be reviewed during vernal pool season.

Comment 11. Wetlands DB and DF are not shown on the plan.

Regulatory Comments

Wetland Protection Act

Comment 12: The Stormwater Report dated July 16, 2024, does not match the latest subdivision plan dated January 30, 2025. Therefore, BSC was unable to review and confirm compliance with the stormwater standards under the Wetlands Protection Act. The applicant should provide an updated stormwater report.

Comment 13: The applicant has provided an alternative analysis for Riverfront Area impacts in accordance with 310 CMR 10.58.

Comment 14: The applicant proposes to construct the wetland replication area prior to commencement of the road crossing upgrade and states that the existing crossing may be used as a one-lane road for construction equipment to access the replication area. The existing crossing is composed of concrete and rock and in poor condition. BSC expects that it will require placement of construction matting to cross this area with equipment. Tree removals and limits of work for temporary use of the existing crossing should be clearly defined on the plan and in the field.

BSC recommends that the Commission include a condition that the erosion controls and tree removals be flagged and inspected prior to the start of work. Additionally, it will be difficult to install any erosion controls other than sandbags along the limit of work at the crossing which may not be sufficient to protect the adjacent resource areas. The applicant should provide a more robust erosion/sediment control plan for this work, as well as an emergency plan for repair if the crossing fails and blocks the stream. Additionally, DFW may have guidance for a Time of Year (TOY) restriction for work in the stream to avoid impacts to fish and fish passage.

Comment 15: Based on the existing site conditions, access and construction of the mitigation area prior to replacing the culvert will make it difficult to install any erosion controls other than sandbags. BSC recommends that the Commission include a condition that the erosion controls and trees flagged for removal be inspected prior to the start of work. BSC also recommends that the Commission authorize a waiver of §247-20(F)(2)(i) so that the crossing can be completed before the wetland replication in order to provide better access and reduce the potential of negative impacts to the stream if there was a failure. This can be conditioned to prevent further development of the site until the wetland replication is constructed.

Comment 16: The applicant proposes using the existing crossing as a one-lane road for access if conditions are not suitable for the installation of a box culvert. As stated in comment 14, the existing crossing is in poor condition and will likely require construction matting and tree removals to cross with equipment. Additionally, it will be difficult to install any erosion controls other than sandbags along the limit of work at the crossing which may not be sufficient to protect the adjacent resource areas.

Comment 17: The applicant proposes installing an 8-inch sewer line from Cross Street near the intersection of Dupree Road and down Blackmar Street to the proposed development and 4-inch Force Main Sewer generally within the limits of the abandoned railroad grade. Plan Sheet S1 of 4 shows the sewer line crossing beneath an existing box culvert conveying Peters River at approximate Station 2+30 and Plan Sheet 9 of 43 shows the alignment of the sewer line within the parcel and location where it crosses Hoag Brook at a stone box culvert abutment of the railroad (approximate Station 21+10) and where the centerline is in close proximity to wetland (approximate Station 21+60 to Station 22+60).

The applicant should provide more detail on how the sewer line will be installed beneath the Peters River and Hoag Brook box culverts to avoid impacts to those resource areas. Additionally, the applicant should describe how and where trench dewatering will occur within town streets and proximity to wetland resource areas on the subject parcel. There is limited workspace within the limits of the abandoned railroad grade to excavate, stockpile material, install the sewer, dewater, where necessary, and backfill without resulting in direct impacts to wetland resource areas. It appears there are proposed impacts to wetlands from sewer line installation between wetland flags KRA1 and KRA5 that need to be accounted for on the NOI form.

Comment 18: The applicant states that "the affected bank and channel bottom will be stabilized with stone at the completion of the work." The bank and channel bottom should be restored to their natural state, not armored with riprap. The applicant should provide a restoration plan for the temporary impacts associated with the Hoag Brook sewer line installation and should include using natural riverbed rock for restoration, work in low flow/no flow conditions, and any time of year restrictions noted by DMF for fish passage.

Bellingham Wetland Bylaw

Comment 19: As stated in comment 5, The Commission possesses the discretion to deny any project or activity that will alter a resource area or buffer zone (§ 247-11(A)). The Applicant should provide a project narrative and supporting document/plans to sufficiently describe the project's compliance with the performance standards for each resource area under the Bellingham Wetlands Protection Bylaw and implementing regulations.

At a minimum, the Applicant should provide documentation of project compliance under:

- § 247-11. Alternatives analyses for impacts proposed to all resource areas.
- § 247-19. Banks.
- § 247-20. Vegetated wetlands.
- § 247-21. Land under water bodies (under any stream, pond or lake).
- § 247-22. Land subject to flooding (bordering and isolated).
- § 247-23. Vegetation removal and replacement.
- § 247-24. Buffer zone.
- § 247-25. Vernal pool associated 100-foot buffer zone and no-disturbance zone.
- § 247-29. Plan requirements.
- § 247-33. Stormwater compliance

Application for Permit under Bellingham Wetlands Protection Bylaw & Regulations

Comment 20: The application is incomplete and should be corrected to ensure compliance with § 247-8(A) the Applicant shall submit the application "on forms specified by the Conservation Commission and in conformance with the plan requirements in § 247-29".

Comment 21: The Application for Permit under Bellingham Wetlands Protection Bylaw & Regulations is missing information related to:

1. Volume of fill being removed from or brought onto the site – this line was left blank and the applicant states that "No major grade changes are proposed. Existing and proposed grades are shown on the subdivision plan included with the application".
2. Quantification of buffer zone impacts– this line has been left blank.

3. Revised impacts to all resource areas to reflect the new design and the recent reclassification of Hoag Brook.
4. The number and type of tree removals proposed within all resource areas and buffer zones.

§ 247-11. Alternatives analyses for impacts proposed to all resource areas.

Comment 22: The Applicant should provide an alternative analysis for all resource areas and buffer zone impacts in accordance with § 247-11. When reviewing the alternatives analysis, the Commission should note that:

1. When any projects or activities propose to alter a resource area or buffer zone, the Applicant is required to demonstrate that there are no practicable alternatives to the proposed project with less adverse impact on the protected resource and interests (§ 247-11(C)).
2. The purpose of evaluating alternatives is to determine whether impacts to all resource areas can be avoided and to locate activities so that impacts to the resource area are avoided to the extent practicable (§ 247-11(E) and (H)).
3. The applicant must demonstrate that there are no practicable and substantially equivalent economic alternatives within the scope of alternatives with less adverse effects (§ 247-11(H)).
    a. The scope of alternatives shall be commensurate with the type and size of the project. (§ 247-11(G)
    b. The alternatives analysis may involve a reduction in the scale of the activity or the number of lots available for development.
    c. Transactions shall not be arranged to circumvent the intent of alternatives analysis review.
    d. The area in consideration must extend to the subdivided lots, any parcel out of which the lots were created, any adjacent parcels held in common ownership or interest, any parcels which are in the process of being obtained, any parcels previously held in common ownership or interest with the subject property and any other land, which can reasonably be obtained, as of the effective date of these regulations (§ 247-11(D)).
4. While the determination of no practical alternatives may result in the Commission's approval of work in a resource area or buffer zone, such a determination is not guarantee of approval and the Commission shall retain the power to deny or condition such work (§ 247-11(H)(2)).

§ 247-24. Buffer zone.

Comment 23: Drainage Basin 4 will require significant clearing, grading, and impacts within the 50-ft and 100-ft buffer Zones to BVW. The other basins and outfalls also require extensive impacts to the 25-foot, 50-foot and 100-foot buffer Zones to BVW and Inland Bank. The buffer zone is a protected resource area under the local bylaw and as such, any alterations to the buffer zone should be avoided, minimized, and mitigated.

Comment 24: The Applicant should provide sufficient information on the existing buffer zones and the proposed impacts in accordance with § 247-24.

Per § 247-24(B)(1) In reviewing whether work in the buffer zone may be permitted, the Commission may review:

(a) Slope.
(b) Soil characteristics.
(c) Drainage patterns.
(d) Extent and type of existing vegetation.
(e) Extent and type of invasive vegetation.
(f) Amount of impervious surface.
(g) Wildlife and wildlife habitat.
(h) Intensity and extent of use.
(i) Intensity and extent of adjacent and nearby uses.

§ 247-29. Plan requirements.

Comment 25: The project plans should be prepared in conformance with the plan requirements outlined in § 247-29. Including but not limited to § 247-29(C)(1-18). Deficiencies include but are not limited to:

1. A delineation of all alterations proposed in buffer zones and wetlands and floodplains and should be clearly explained in text or footnotes (§ 247-29(C)(3)(a)).
2. Cross-section of all wetlands, showing slopes, and bank and bottom treatments for proposed wetland crossings.
3. Existing and proposed water storage capacity of the property, including calculations and data on which the capacity is based. If filling is proposed, determine the effect of loss of storage on downstream channels and culverts.
4. Indicate existing trees of 10-inch caliper or greater where work is proposed within upland resource areas (those to be preserved and/or removed), stone walls, fences, buildings, historic sites, rock ridges and outcroppings.
5. Indicate proposed on-site pollution control devices, such as hooded catch basins, oil absorption pillows, detention/retention basins, flow dissipaters or vegetative buffers.
6. Show locations/details of erosion control devices.

§ 247-23. Vegetation removal and replacement.

Comment 26: The applicant should provide a narrative description for vegetation removal within all resource areas and buffer zones, including a list of trees over 2inch DBH and a tree protection plan in accordance with section 247-23 of Bellingham's Wetlands Regulations. Tree and vegetation replacement requirements are based on DBH and area of coverage (square feet) and number of individual plants.

§ 247-33. Stormwater compliance

Comment 27: The Site is located within Bellingham's mapped Water Resource District and DEP's Zone II Wellhead protection areas for protecting the recharge area around public water supply PWS) groundwater sources. The applicant should provide narrative and supporting documents/plans in accordance with § 247-33 of the wetland regulations and the Submittal Standards established by the Conservation Commission for evaluating and mitigating development impacts associated with subdivision development projects. This should include sufficient information to determine compliance with the Hydrological Assessment Standards in accordance with § 247-33(C).

Plan Review Comments

Comment 28: BSC reviewed the revised plans dated January 30, 2025, and the cover letter dated January 16, 2025, to confirm consistency of the revised plan, cover letter, and delineation changes in the field. BSC is satisfied that the changes have been accurately revised based on the field review and discussions, however, the additional design changes including offsite grading for the emergency road may require additional review for unmapped resource areas and buffer zones. Additionally, the field visit did not evaluate vernal pool habitat or confirm engineering calculations for Isolated Land Subject to Flooding.

Comment 29: The applicant should provide a clear limit of work, tree clearings, grading and alterations throughout the plan set.

Comment 30: The Applicant should identify the location of the new 25-foot, 50-foot, and 100-foot buffer zones will be located in relation to the proposed replication area.

Comment 31: Sheet 20 - Clarify limit of work and impacts to the 100-ft buffer zone associated with creation of a drainage swale along the south end of the project area. This proposed 3-foot wide swale is proposed outside of the Erosion Control Barrier and will require additional clearing and grading.

Comment 32: Sheets 23 & 25 – The plan shows offsite grading into areas that have not been reviewed and may impact resource areas and adjacent buffer zones.

Erosion Control Plan

Comment 33: Sheets 33-35 - Erosion control barriers should be extended around the entire project area to prevent erosion and sediment from tracking onto abutting adjacent properties and roadways. Not just upslope of resource areas.

Comment 34: Proposed slopes with a grade in exceeding 3:1 may require reinforced silt fence. Additionally, per § 247-29 B(1)(e), the plan should show the proposed methods for stabilizing and maintaining all embankments facing wetland resource areas, and all slopes equal to, or in excess of, 3:1. This project will also require a Construction General Permit and Stormwater Pollution Prevention Plan, which will require weekly monitoring reports documenting compliance and corrective actions for erosion and sediment controls.

Mitigation & Wetland Replication Comments

The Applicant proposes to fill 18,570 sf of Vegetated Wetland, including 480 sf of Bordering Vegetated Wetlands and 18,090 sf of Isolated Vegetated Wetlands (IVW 1: 1,230 sf and IVW 2: 16,860 sf). "The Commission in its sole discretion may allow work in vegetated wetland which results in the loss of up to 5,000 square feet of vegetated wetland when such area is replaced or replicated in a manner to ensure that the replacement area will provide a viable and sustainable wetland that replaces the functions and values of the area lost (§247-20(F))."

Comment 35: The project proposes to fill and replicate vegetated wetlands over 3 times greater than allowed under the local bylaw and performance standards for Vegetated Wetlands. Additionally, this may not be allowable under the WPA and it will trigger additional permitting under 401 for a Water Quality Certification. As such, the Commission should include a condition requiring the WQC approval be submitted to the Commission prior to the start of work. The WQC will also trigger MEPA review. All required permits should be obtained prior to the start of any work at the site.

Comment 36: The wetland replication plan is incomplete and should be revised to ensure compliance with §247-20(I) "The proposal for a replication area (submitted with the notice of intent) shall include a detailed plan of the wetland replication showing:

[1] Cross-section with indication of groundwater level, soil profile and thickness of organic soil in the existing and proposed wetlands;

[2] Plant species detail, including number, type and location of species found in the replication area to be altered, and number, types and locations of species to be introduced into the replacement area;

[3] Detail of stabilization plans for replication area of banks;

[4] Wildlife habitat diversity plan;

[5] Any trees over two inches dbh shall be replaced in accordance with § 247-23 of these regulations, Vegetation removal and replacement."

Comment 37: More information is required to accurately determine whether the functions and values have been replicated. Particularly considering the loss of adjacent upland resource areas (buffer zones) that currently surround the two isolated vegetated wetlands.

Comment 38: The replication area has very steep slopes that do not match the existing conditions and natural characteristics of the project site and representative resource areas.

Comment 39: The entire site should be evaluated during vernal pool breeding season to determine if and where the site is functioning as vernal pool habitat. Additionally, conversion of IVW's should not be included as mitigation/restoration given their protected status and modifying them into BVW along a stream with fish could jeopardize potential VP species by introducing fish into the VPs during periods of flooding. It is critical to fully understand the potential impacts associated with the restoration area.

Comment 40: The stormwater basins discharge into the wetland replication area which does not comply with section §247-20(j) and is likely to impair the habitat value or negatively impact fauna.

Comment 41: The application does not meet the application requirements under §247-20(k) which requires that the proposed replication area must be clearly flagged for Commission site inspection before the notice of intent filing.

The Applicant states that the proposed project will fill a small area of BLSF at the proposed crossing, but will create substantially more compensatory flood storage at the proposed wetland replication area in close proximity to the fill area, at the appropriate elevation increments.

Comment 42: The Applicant should provide calculations for the impacts to BLSF and proposed compensatory flood storage. The Applicant should demonstrate that compensatory flood storage has been provided at a 2:1 ratio, minimum, for each unit volume of flood storage lost at each elevation in accordance with §247-22(D)(2).

DEP Comments

In addition to our comments, the DEP has provided additional comments which should be addressed by the applicant prior to the Commission making a determination.

1. The proposed project may require filing with the Franklin Conservation Commission. MassDEP recommends that the applicant clarify how the proposed project meets the provisions for review as a limited project under 310 CMR 10.53(3)(e), which allows for the construction of a new roadway or driveway as a limited project "where reasonable alternative means of access from a public way to an upland area of the same owner is unavailable."
    a. Based on project plans submitted with the application multiple access roadways to the site are proposed. Specifically, "Road D" does not require direct resource area alteration to gain access to buildable upland portions of the site.
    b. "Road E", although proposed as emergency access on current plans, would also appear to allow for upland only access to the site. Understanding that existing site elevations and the need to interconnect with the existing municipal system may represent limiting factors, it would appear that similar use of the Road D or E access paths for siting of proposed sewer main may also represent viable alternatives for sewer construction which would not require direct resource impact.
2. In its assessment of whether reasonable alternative means of access are available to the applicant the Commission may consider access from an "adjacent parcel of land currently or formerly owned by the applicant, or in which the applicant has or can obtain ownership interest." MassDEP asks if impacts to resource areas or their buffer zones which may be associated with the proposed sewer main extension have been included for review in this NOI. The project narrative details an approximately 2,800 linear ft sewer main extension from the Project site to Blackmar St located to the southwest, and a wetland delineation report is provided for locations around Blackmar and Cross St, however project plans do not contain details of the extension. Project plans should be revised to include work on the sewer extension if proposed under this NOI. If additional resource area impacts associated with the sewer extension will occur the applicant should submit a revised WPA Form 3 which documents all proposed resource alteration, as well as documentation of how work on the proposed sewer main extension complies with applicable regulations found in 310 CMR 10.00.
3. MassDEP notes that the supplemental information dated February 1 , 2023 contains discussion of Riverfront Area restoration, however this proposal appears to be for a different site design. The applicant should clarify if RA restoration is proposed under this NOI.
4. Similarly, the analysis of the amount of degraded vs non-degraded RA proposed for development corresponds to a different development program and may vary from values proposed under this NOI.
5. The accompanying stormwater narrative states that under proposed conditions peak runoff rates will not exceed those of existing conditions. However, the calculations provided show an increase in peak rates across the majority of modeled storms at the three design points subject to analysis. Noting that these increases are on the smaller side, MassDEP asks if designs which fully attenuate peak flows have been considered.
6. The applicant should verify that test pits have been performed in accordance with the design criteria for all proposed infiltration basins as outlined in Volume 2 Chapter 2 of the MA Stormwater Handbook.

7. The applicant should demonstrate sufficient separation from seasonal high groundwater (minimum 2-ft) and bedrock for the proposed infiltration basins. If separation from seasonal high groundwater is less than 4ft the applicant should provide a mounding analysis.

We appreciate the opportunity to review the Notice of Intent for Prospect Hill Village in Bellingham and look forward to discussing the findings of our field investigations and peer review with the Commission at the next hearing. Should you have any questions regarding our review and provided comments, please do not hesitate to contact me at (617) 896-4411or asmith@bscgroup.com.

Sincerely
BSC Group, Inc.

Amanda Smith
Project Manager

CC Paul Knapik

Appendix

I have included additional information for reference by the Conservation Commission, Applicant, town officials and/or general public but it is by no means complete or comprehensive. I also included short blurbs about each Mass GIS data layer pulled directly from MassGIS Data Layers https://www.mass.gov/info-details/massgis-data-layers

MassGIS Data layers

- DFW coldwater fisheries - CFRs are important habitat for a number of cold water species, including trout. Coldwater species are typically more sensitive than other species to alterations to stream flow, water quality and temperature within their aquatic habitat. Identification of CFRs is based on fish samples collected annually by staff biologists and technicians. New streams are sampled and evaluated yearly.
- BioMap Local aquatic habitat buffer - Intact upland habitat surrounding Aquatic Habitats that supports aquatic functions and connectivity between habitats.
- BioMap Local aquatic habitat - Areas in each municipality with above average fish and freshwater mussel native species diversity.
- BioMap Local landscapes - The most intact natural areas in each city and town—mosaics of forests, wetlands, and streams.
- BioMap Local Wetland Buffers - Intact upland habitat surrounding wetlands that supports wetland functions and connectivity between habitats.
- BioMap Local Wetlands - Resilient wetlands in less developed areas of each municipality, supporting species and community benefits.
- Aquafer - Underground water sources of high, medium and low yield are in this layer.
- DEP Zone II - Wellhead protection areas are important for protecting the recharge area around public water supply (PWS) groundwater sources.
- Approved Wellhead Protection Areas (Zone II) - The statewide datalayer contains DEP Approved Wellhead Protection Areas (Zone II). As stated in 310 CMR 22.02, a Zone II is: The statewide datalayer contains DEP Approved Wellhead Protection Areas (Zone II). As stated in 310 CMR 22.02, a Zone II is:

  "That area of an aquifer which contributes water to a well under the most severe pumping and recharge conditions that can be realistically anticipated (180 days of pumping at safe yield, with no recharge from precipitation). It is bounded by the groundwater divides which result from pumping the well and by the contact of the aquifer with less permeable materials such as till or bedrock. In some cases, streams or lakes may act as recharge boundaries. In all cases, Zone IIs shall extend up gradient to its point of intersection with prevailing hydrogeologic boundaries (a groundwater flow divide, a contact with till or bedrock , or a recharge boundary)."

  DEP Zone II and public water supply (PWS) data are closely linked, and DEP Zone II data should be used in association with the DEP Public Water Supply datalayer (PWSDEP_PT). During the approval process each Zone II is assigned a unique ID (ZII_NUM) by DEP DWP. The DEP PWS and Zone II datalayers use the ZII_NUM to link protected PWS sources to their approved Zone II. Since some PWS sources within a Zone II may not have been used to delineate that Zone II, the ZII_NUM item can be used to identify the specific wells for which a Zone II was delineated. If the DEP PWS datalayer item ZII_NUM is equal to 0 than that PWS source has no Zone II and should therefore have an Interim Wellhead Protection Area (IWPA).
- Public Water Supply Wells - Downstream of the project site are five (5) public water supply wells (GP Wells on Cross Street #1.1, #2.1, #2.2, #2.3, #2.4) .
- MassDEP Estimated Public Drinking Water System Service Area Boundaries - The GIS dataset represents approximate service areas for Community (COM) and Non-Transient Non-Community (NTNC) Public Water Systems (PWS) in Massachusetts. In 2017, as part of its "Enhancing Resilience and Emergency Preparedness of Water Utilities through Improved Mapping" (Critical Infrastructure Mapping Project), the MassDEP Water Utility Resilience Program (WURP) began to uniformly map drinking water service areas throughout Massachusetts using information collected from various sources. Along with confirming existing public water system (PWS) service area information, the MassDEP Water Utility Resilience Program Mapping Project collected and verified estimated service area delineations for PWSs not previously delineated and will continue to update the information contained in the datalayers. As of the date of publication, WURP has

delineated Community (COM) and Non-Transient Non-Community (NTNC) service areas. Transient non-community (TNCs) are not part of this mapping project.

- "That area of an aquifer which contributes water to a well under the most severe pumping and recharge conditions that can be realistically anticipated (180 days of pumping at safe yield, with no recharge from precipitation). It is bounded by the groundwater divides which result from pumping the well and by the contact of the aquifer with less permeable materials such as till or bedrock. In some cases, streams or lakes may act as recharge boundaries. In all cases, Zone IIs shall extend up gradient to its point of intersection with prevailing hydrogeologic boundaries (a groundwater flow divide, a contact with till or bedrock , or a recharge boundary)."
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- Environmental Justice Population - Polygons in the 2020 Environmental Justice (EJ) Populations layer are 2020 Census block groups across the state that meet one or more of the criteria listed below.:
  - the annual median household income is not more than 65 percent of the statewide annual median household income;
  - minorities comprise 40 percent or more of the population;
  - 25 percent or more of households lack English language proficiency; or
  - minorities comprise 25 percent or more of the population and the annual median household income of the municipality in which the neighborhood is located does not exceed 150 percent of the statewide annual median household income.

  The 2020 EJ dataset should be used at the block group (BG) level to ensure that environmental planning and decision-making is done at the appropriate geographic scale. A fact sheet for 2020 EJ, MA EJ 2020 Municipal Statistics.pdf, lists municipalities with EJ BGs and statistics for each of these communities: the number of EJ BGs, the EJ criteria, the percentages of the BGs classified as EJ and the population living in these EJ BGs.
- Prime Farmland Soils - The layer comprises three important farmland categories. Urban built-up land and water are excluded from all three categories, but forested lands are included in all three categories if they meet the appropriate criteria.
  - Prime Farmland- Land that has the best combination of physical and chemical characteristics for economically producing sustained high yields of food, feed, forage, fiber, and oilseed crops, when treated and managed according to acceptable farming methods.
  - Farmland of Statewide- This is land, in addition to prime and unique farmlands, that is of statewide importance for the production of food, feed, fiber, forage, and oil seed crops, as determined by the appropriate state agency or agencies. Generally, these include lands that are nearly prime farmland and that economically produce high yields of crops when treated and managed according to acceptable farming methods.
  - Farmland of Unique Importance- Land other than prime farmland or farmland of statewide importance that might be used for the production of specific high value food and fiber crops. Examples of such crops are tree nuts, cranberries, fruit, and vegetables. In Massachusetts, Unique soils are confined to mucks, peats, and coarse sands. Cranberries are the primary commercial crop grown on these soils. The presence of other crops on these soils is usually, possibly always, limited to small, incidental areas

310 CMR 10.04: Definitions

Vernal Pool Habitat means confined basin depressions which, at least in most years, hold water for a minimum of two continuous months during the spring and/or summer, and which are free of adult fish populations, as well as the area within 100 feet of the mean annual boundaries of such depressions, to the extent that such habitat is within an Area Subject to Protection under M.G.L. c. 131, § 40 as specified in 310 CMR 10.02(1). These areas are essential breeding habitat, and provide other extremely important wildlife habitat functions during non breeding season as well, for a variety of amphibian species such as wood frog (Rana sylvatica) and the spotted salamander (Ambystoma macultum), and are important habitat for other wildlife species.

Websites

US Army Corp - Conserving Pool-Breeding Amphibians in Residential and Commercial Developments in the Northeastern United States
https://www.nae.usace.army.mil/Portals/74/docs/regulatory/VernalPools/BestDevelopmentPractices20Oct2014.pdf

US Army Corp – Vernal Pool Best Management Practices (BMP's)
https://www.nae.usace.army.mil/Portals/74/docs/regulatory/VernalPools/VPBMPsJan2015.pdf

Additional Permits

401 WQC - https://www.epa.gov/cwa-401/overview-cwa-section-401-certification

1. 314 CMR 9.04(1) loss of more than 5000 Sq. Ft. of Isolated Vegetated Wetlands
2. 314 CMR 9.04(3) Real estate subdivisions - including divisions where approval is required and where approval is not required under the Subdivision Control Law, M.G.L. c. 41, §§ 81K through 81GG. Discharges of dredged or fill material to create the real estate subdivision include but are not limited to discharges resulting from the construction of roads, drainage, sidewalks, sewer systems, buildings, septic systems, wells, and accessory structures.
3. 314 CMR 9.04(6) More than 5000 Sq. Ft. of Isolated Vegetated Wetlands - any activity in an area not subject to jurisdiction of M.G.L. c. 131, § 40 but which is subject to 33 U.S.C. 1251 (i.e., isolated vegetated wetlands) and which will result in the loss of more than 5000 square feet cumulatively of bordering and isolated vegetated wetlands and land under water.

MEPA review - 301 CMR 11.03(3)(b)(1)d. alteration of 5,000 or more sf of bordering or isolated vegetated wetlands).
https://www.mass.gov/doc/301-cmr-11-mepa-regulations/download