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May 28, 2021

Ms. Irina Burmenko
59 Selwyn Road
Newton, MA 02461

RE: Wetland Resource Evaluation and NOI Site Report for 59 Selwyn Road, Newton, Massachusetts

Dear Ms. Burmenko:

On October 29, 2019, EcoTec, Inc. inspected the above-referenced property and the land located along Paul Brook across Selwyn Road to the southeast of the site for the presence of wetland resources as defined by the Massachusetts Wetlands Protection Act (M.G.L. Ch. 131, § 40; the “Act”) and its implementing regulations (310 CMR 10.00 *et seq.*; the “Regulations”). The City of Newton does not have a Wetlands Protection Ordinance but does have a Floodplain Ordinance (the “Ordinance”; Section 22-22). John P. Rockwood, Ph.D., SPWS conducted the inspection.

The subject site consists of 0.177± acres (7,709± square feet) of land located to the northwest of Selwyn Road in south-central Newton, Massachusetts. Paul Brook, which is tributary to South Meadow Brook, flows to the south-southwest behind the houses located across Selwyn Road to the southeast of the site. The subject site is largely previously developed and partially degraded with a one-story single-family house with a one-car garage and rear pier-supported screened porch with wood stairs, paved driveway, concrete front stairs, brick/paver front walk, and associated lawn and landscaping with trees including Norway maple (*Acer platanoides*) and ornamentals and various stepping stones. Roof runoff is directed to the ground surface via gutters and downspouts; driveway runoff is not mitigated. A small, wooded pocket is located in the extreme western corner of the site; plant species observed in this area included Norway maple (*Acer platanoides*) and black cherry (*Prunus serotina*) trees; common buckthorn (*Rhamnus cathartica*), winged euonymus (*Euonymus alata*), and honey-suckle (*Lonicera sp.*) shrubs and/or ground cover. Two street trees, strip of lawn, and a concrete sidewalk occur generally between the site and the pavement of Selwyn Road. The wetland resources observed on or near the site are described below.

Methodology

The subject site and the area across Selwyn Road to the southeast of the site were inspected, and areas suspected to qualify as wetland resources were identified. Bordering Vegetated Wetlands and Bank/Land Under Waterbodies and Waterways were not observed on the subject site. The plant taxonomy used in this report is based on the *National List of Plant Species that Occur in Wetlands: Massachusetts* (Fish and Wildlife Service, U.S. Department of

the Interior, 1988). As Bordering Vegetated Wetlands were not observed or delineated on or near the site, DEP Bordering Vegetated Wetland Delineation Field Data Forms were not completed and are not attached to this report.

Flag Numbers	Flag Type	Wetland Types and Locations
Start S1 to S6	Blue Ground Flags	Upper boundary of Bank and Mean Annual High-water Line (MAHWL) of Paul Brook located to the rear of 58 Selwyn Road which is located to the southeast across Selwyn Road from the site.

Findings

Land Under Water Bodies and Waterways, Bank, and Bordering Vegetated Wetlands: Paul Brook flows to the south-southwest to the rear of 58 Selwyn Road which is located to the southeast across Selwyn Road from the site. The area on the slope upgradient of Paul Brook consists of a narrow band of urbanized forest. Plant species observed in this area include Norway maple (*Acer platanoides*) and black cherry (*Prunus serotina*) trees, saplings, and/or shrubs; Virginia creeper (*Parthenocissus quinquefolia*), oriental bitter-sweet (*Celastrus orbiculata*), and English ivy (*Hedera helix*) climbing woody vines and ground cover; and American yew (*Taxus canadensis*), tartarian honeysuckle (*Lonicera tatarica*), multiflora rose (*Rosa multiflora*), and Japanese barberry (*Berberis thunbergii*) shrubs. The upper boundary of Bank is located at the upper edge of the concrete blocks that line the stream channel. Land Under Water Bodies and Waterways is also present in the subject reach of the brook but was not delineated in the field. Bordering Vegetated Wetlands were not observed or delineated along the subject reach of the brook. Paul Brook would be regulated as Bank and Land Under Water Bodies and Waterways under the Regulations. The 100-foot Buffer Zone to Bank under the Regulations associated with Paul Brook does not extend to the subject property.

Bordering Land Subject to Flooding and Section 22-22 Floodplain: Bordering Land Subject to Flooding is an area that floods due to a rise in floodwaters from a bordering waterway or water body. Where flood studies have been completed, the boundary of Bordering Land Subject to Flooding is based upon flood profile data prepared by the National Flood Insurance Program. Section 10.57(2)(a)3. states that “The boundary of Bordering Land Subject to Flooding is the estimated maximum lateral extent of flood water which will theoretically result from the statistical 100-year frequency storm.” Based upon a review of the Flood Insurance Rate Map, Map Number 25017C0554E, Effective Date June 4, 2010 (attached), the entire site and surrounding area is mapped as Zone AE (i.e., 100-year floodplain) with a 100-year flood elevation of 114 feet (NAVD 1988). There is also a mapped Floodway associated with Paul Brook located off-site to the southeast of the site. The entire site, except for the existing house, would be regulated as Bordering Land Subject to Flooding that is associated with Paul Brook. Bordering Land Subject to Flooding does not have a 100-foot Buffer Zone under the Regulations.

Section 22-22 of the Ordinance identifies the Floodplain/Watershed Protection District. Under Section (g)1. Floodplain/ Watershed Areas, the subject reach of Paul Brook [i.e., (23) Mildred Road to the confluence of South Meadow Brook] has a 100-year floodplain of elevation of

120.5 feet City of Newton Datum. As such, the entire subject site, except the existing house, would be located within Ordinance Floodplain. Under Section (g)2. Floodways, the 40-foot-wide floodway associated with the subject reach of Paul Brook would not project onto the subject site. Section 22-22 does not establish any form of buffer zone associated with the above resources.

Riverfront Area: The Massachusetts Rivers Protection Act amended the Act to establish an additional wetland resource area: Riverfront Area. Based upon a review of the current USGS Map (i.e., Boston South Quadrangle, dated 1987, attached), there is a perennially mapped stream, Paul Brook, located to the rear of 58 Selwyn Road which is located to the southeast across Selwyn Road from the site. Based upon stream mapping, Paul Brook would be designated as perennial and a 200-foot Riverfront Area associated with Paul Brook would project part way across the site. The mean annual high-water line was flagged in the field with blue ground flags at the upper limit of the concrete blocks that line the stream channel. Riverfront Area does not have a Buffer Zone under the Act and Regulations but may overlap other wetland resources and their Buffer Zones.

Estimated Habitat and Certified Vernal Pools: The Regulations require that no project may be permitted that will have any adverse effect on specified habitat sites of rare vertebrate or invertebrate species, as identified by procedures set forth at 310 CMR 10.59. Based upon a review of the *Massachusetts Natural Heritage Atlas*, 14th edition, Priority Habitats and Estimated Habitats from the NHESP Interactive Viewer, valid from August 1, 2017, and Certified Vernal Pools from MassGIS (attached), there are no Estimated Habitats [for use with the Act and Regulations (310 CMR 10.00 *et seq.*)], Priority Habitats [for use with Massachusetts Endangered Species Act (M.G.L. Ch. 131A; "MESA") and MESA Regulations (321 CMR 10.00 *et seq.*)], or Certified Vernal Pools on or in the immediate vicinity of the subject site.

The reader should be aware that the regulatory authority for determining wetland jurisdiction rests with local, state, and federal authorities.

Project Description and Analysis

The subject site is 7,709± square feet in size and the southeastern 4,550± square feet of the site is located within the outer portion of the Riverfront Area of Paul Brook. The entire site, with the exception of the existing house, is located within Bordering Land Subject to Flooding and Ordinance Floodplain. No other wetland resource areas or the 100-foot Buffer Zone to a resource area occur on the subject site. Selwyn Road and a developed residential lot at 58 Selwyn Road occur between the subject site and Paul Brook.

The proposed project consists of the partial demolition of the existing single-story, single-family house with attached one-car garage with both horizontal and vertical expansion of the house via addition to a two-story, single-family house with an attached one-car garage (see attached Architect Elevations, Zoning FAR Analysis, and Basement Floor Plan). The majority of the proposed house expansion will occur as a second story addition, as cantilevered

extensions above the floodplain, and as an expansion of the foundation footprint for the proposed garage addition. A portion of the existing foundation at the northern corner of the house will be removed and covered with a post supported second story addition. A post supported deck is proposed to the rear of the house; the deck has been located such that a portion of the deck is outside of the Riverfront Area. Details of the house configuration are shown on Sheet 2 of the Site Plan and in the attached Architects Plans. The work on the proposed house, driveway, front walk and stairs, a portion of the rear deck, and utility installation will occur within the Riverfront Area. The total degraded area in the Riverfront Area on the site is proposed to increase by $325\pm$ square feet from $2,144\pm$ square feet under existing conditions to $2,469\pm$ square feet under proposed conditions. Tree protection will be provided for the 18" DEC in the front yard as well as for the two existing street trees. No trees are proposed to be removed from the site as part of this project. The project does not trigger stormwater management under the Regulations or the City of Newton requirements. Lastly, a $660\pm$ square foot enhancement planting area in the Riverfront Area is proposed to mitigate for the net $325\pm$ square foot increase in degraded area within the Riverfront Area on the site. Any disturbed lawn and landscaped areas will be returned to existing grade and will be seeded with a grass seed mixture to provide permanent cover or will be landscaped. Alternatively, sod may be used to establish lawn areas. The proposed limit of work will be demarcated in the field by the erosion control barrier as shown on the Site Plan. Soil will be temporarily stored in the designated stockpile area in the front yard in a covered stockpile within the limit of work on the site as shown on Sheet 2 of the Site Plan with excess soil trucked from the site.

Under existing conditions, the site is developed with a $1,731\pm$ square foot one-story, single-family house with attached one-car garage and rear screened porch; paved driveway; front walkway and stairs/landing; and associated lawn and landscaping including several trees. A total of $2,144\pm$ square feet of degraded area associated with the house, driveway, and front stairs/walkway occur on the site, all within the Riverfront Area. The existing house is located $161\pm$ feet, the existing paved driveway is located $135\pm$ feet, and the existing front walkway is located $135\pm$ feet from Paul Brook. Existing roof runoff discharges unchecked to the ground surface' driveway runoff is not treated or controlled.

Under proposed conditions, the site will be redeveloped with an expanded $1,847\pm$ square foot two-story, single-family house with an attached one-car garage; paved driveway; front walkway with timber stairs; rear deck; and associated lawn and landscaping. Except where noted, there will be no proposed grading on the site as the site is located within Bordering Land Subject to Flooding. A total of $2,469\pm$ square feet of degraded area associated with the house, driveway, front stairs and walkway, and rear deck are proposed on the site within the Riverfront Area. An approximately $88\pm$ square foot portion of the rear deck and stairs are proposed outside of the Riverfront Area. The project includes the installation of new underground utilities and project associated lawn and landscaping. The proposed house is located $159\pm$ feet, the proposed driveway is located $135\pm$ feet, the front walkway is located $149\pm$ feet from Paul Brook. The project does not require stormwater improvements under the Regulations; the proposed increase in impervious area is below the threshold that triggers drainage improvements under the City of Newton requirements (see Sheet 2 of Site Plan). A $660\pm$ square feet enhancement planting area which will contain proposed saplings, shrubs,

and small shrubs/ground cover plantings is proposed to address the 325± square foot increase in degraded area in the Riverfront Area on the site. Compliance with the applicable performance standards for work in the Riverfront Area is discussed in a subsequent section of this letter.

Enhancement Planting Area Plan

An enhancement planting area totaling 660± square feet in size will be established within the Riverfront Area in the southern corner of the site. The proposed plantings include three (3) understory saplings of two species 5 to 6 feet in height; eighteen (18) native shrubs of five species 3 to 4 feet in height and eighteen (18) small native shrubs and ground cover of three species 0.5 to 1.5 feet in height which will be established within existing lawn in the Riverfront Area in the southern corner of the site. These plantings will serve to stabilize this area, reduce stormwater runoff, and provide enhanced wildlife habitat, including cover, perching, and foraging habitat, compared to the existing condition. The upper three inches of soil in this area will be removed using a grading bucket and the soil surface at and near the edges of the area will be removed such that the top of the proposed initial mulch application will be flush with the adjacent lawn or sidewalk surface. The proposed saplings, shrubs, and ground cover will be spaced generally as shown on the Planting Schematic included as part of the filing subject to the discretion of the supervising qualified wetland scientist. The woody materials will be planted in accordance with current landscaping practices (i.e., hole twice as wide and as deep as the root ball with the area around the root ball backfilled with high quality loamy top soil). The proposed plant species listing is provided as part of the Planting Schematic; the selected species are native and have been selected based upon the conditions of the proposed planting area. If a species is not available, a substitution will be recommended by the wetland scientist and approved by Conservation Staff. The excess soil will be removed from the site. Following installation, the area will be initially mulched with a 3- to 4-inch-thick layer of partially decomposed leaf litter with 20% natural bark mulch as specified in a note on the Planting Schematic. This will aid in keeping the plantings moist and will provide temporary cover and habitat value. This area is not a landscaped area and mulch application in the area will diminish and stop with time. The woody materials will be watered regularly for a period of four weeks, and will be watered, as necessary, if evidence of stress is observed. As shown on the Site Plan, the project side of the enhancement planting area will be demarcated with four stone bounds set such that they extend a minimum of 6 inches above the ground surface.

Enhancement Planting Area Monitoring: The enhancement planting area will be monitored near the end of the growing season for two years after it is established. During each inspection, which will be conducted by a qualified wetland scientist, the condition of the area and the number and species of saplings, shrubs, and ground cover and their condition will be documented. Photographs of the area shall be taken, and representative photographs shall be included in the report. To be considered a success, the sapling, shrub, and small shrub/ground cover plantings shall have a survival rate by strata as specified in the Order at the end of the second growing season after establishment. The findings of each inspection

will be documented in a report that will be submitted in a timely manner to the Commission. Each report will include any necessary recommendations to bring the area into compliance.

Compliance Evaluation under the Regulations

The proposed project is a mixture of new and redevelopment activities within the following wetland resource areas: Bordering Land Subject to Flooding and Riverfront Area. No work is proposed within any other wetland resource area (i.e., Land Under Water Bodies and Waterways, Bank, Bordering Vegetated Wetlands, or Isolated Land Subject to Flooding); no work is proposed within the 100-foot Buffer Zone to Bank. Work proposed within Bordering Land Subject to Flooding is required to meet the general performance standards found at 310 CMR 10.57(4)(b). Certain activities which are proposed within previously developed, but not degraded areas of the 200-foot Riverfront Area on the site, are required to meet the general performance standards for Riverfront Area found at 310 CMR 10.58(4). Activities proposed within previously developed and degraded areas of the 200-foot Riverfront Area on the site are required to meet applicable standards at 310 CMR 10.58(4) and all the performance standards for a redevelopment project set forth at 310 CMR 10.58(5).

The proposed project has been designed as shown on the Proposed Plan and described within this Site Report to meet the general performance standards found at 310 CMR 10.57(4)(b) for Bordering Land Subject to Flooding and to meet the applicable general performance standards for Riverfront Area found at 310 CMR 10.58(4) and the performance standards for redevelopment of the Riverfront Area at 310 CMR 10.58(5), as applicable. Due to the age of the lot, the amount of Riverfront Area on the site, and the proposed area of disturbance within the Riverfront Area, this project could simply be permitted under the general performance standards for Riverfront Area. A discussion of compliance with these standards is as follows:

Bordering Land Subject to Flooding: Section 10.57(4)(b) provides the general performance standards for work proposed within Bordering Land Subject to Flooding. Section 10.57(4)(a) states:

1. Compensatory storage shall be provided for all flood storage volume that will be lost as the result of a proposed project within Bordering Land Subject to Flooding, when in the judgment of the issuing authority said loss will cause an increase or will contribute incrementally to an increase in the horizontal extent and level of flood waters during peak flows. Compensatory storage shall mean a volume not previously used for flood storage and shall be incrementally equal to the theoretical volume of flood water at each elevation, up to and including the 100-year flood elevation, which would be displaced by the proposed project. Such compensatory volume shall have an unrestricted hydraulic connection to the same waterway or water body. Further, with respect to waterways, such compensatory volume shall be provided within the same reach of the river, stream or creek.

The proposed project will alter 1,460± square feet of Bordering Land Subject to Flooding for the house renovations, driveway, walkway, and rear deck. The existing house foundation is largely retained; a small foundation addition for the garage extension and foundation removal at the northern corner of the house are proposed. The remaining house additions and deck are cantilevered or post-supported above the floodplain elevation. Sonotubes, posts, stairs, and steps are proposed to be added or removed from the floodplain. Flood storage loss and compensatory storage are addressed on Sheet 2 of the Site Plan within three incremental ranges: 117.5 to 118.5, 118.5 to 119.5, and 119.5 to 120.5. The project proposes a very limited 123± cubic feet of floodplain fill and 178± cubic feet of floodplain compensatory storage. Excess total compensatory storage is provided with excess incremental storage provided for each elevation range. The required Floodplain Impact & Mitigation Summary Table and supporting explanations certified by a Professional Engineer are provided on Sheet 2 of the Site Plan. The proposed compensatory storage is provided near the lost flood storage and is located within the same river reach and will have an unrestricted hydraulic connection to Paul Brook. As such, the proposed project complies with this standard.

2. Work within Bordering Land Subject to Flooding, including that work required to provide the above-specified compensatory storage, shall not restrict flows so as to cause an increase in flood stage or velocity.

The proposed Bordering Land Subject to Flooding compensatory storage has been designed to provide the required incremental compensatory storage volumes and will not restrict flows in Paul Brook or result in an increase in flood stage or velocity along Paul Brook. As such, the proposed project complies with this standard.

3. Work in those portions of bordering land subject to flooding found to be significant to the protection of wildlife habitat shall not impair its capacity to provide important wildlife habitat functions. Except for work which would adversely affect vernal pool habitat, a project or projects on a single lot, for which Notice(s) of Intent is filed on or after November 1, 1987, that (cumulatively) alter(s) up to 10% or 5,000 square feet (whichever is less) of land in this resource area found to be significant to the protection of wildlife habitat, shall not be deemed to impair its capacity to provide important wildlife habitat functions. Additional alterations beyond the above threshold, or altering vernal pool habitat, may be permitted if they will have no adverse effects on wildlife habitat, as determined by procedures contained in 310 CMR 10.60.

The existing Bordering Land Subject to Flooding on the site that is proposed to be altered consists of existing structure, site features, lawn, and landscaping, and are not important to the protection of wildlife habitat. As such, this standard is not applicable to the proposed project. In any event, a 660± square foot Enhancement Planting Area located within Bordering Land Subject to Flooding and Riverfront Area is proposed that will augment the wildlife habitat characteristics in the area.

Riverfront Area: Section 10.58(4) of the Regulations provides the general performance standards for work within the Riverfront Area, which states:

(4) General Performance Standard. Where the presumption set forth in 310 CMR 10.58(3) is not overcome, the applicant shall prove by a preponderance of the evidence that there are no practicable and substantially equivalent economic alternatives to the proposed project with less adverse effects on the interests identified in M.G.L. c.131 § 40 and that the work, including proposed mitigation, will have no significant adverse impact on the riverfront area to protect the interests identified in M.G.L. c. 131 § 40. In the event that the presumption is partially overcome, the issuing authority shall make a written determination setting forth its grounds in the Order of Conditions and the partial rebuttal shall be taken into account in the application of 310 CMR 10.58 (4)(d)1.a. and c.; the issuing authority shall impose conditions in the Order that contribute to the protection of interests for which the riverfront area is significant.

(a) Protection of Other Resource Areas. The work shall meet the performance standards for all other resource areas within the riverfront area, as identified in 310 CMR 10.30 (coastal bank), 10.32 (salt marsh), 10.55 (Bordering Vegetated Wetland), and 10.57 (Land Subject to Flooding). When work in the riverfront area is also within the buffer zone to another resource area, the performance standards for the riverfront area shall contribute to the protection of the interests of M.G.L. c. 131, § 40 in lieu of any additional requirements that might otherwise be imposed on work in the buffer zone within the riverfront area.

Work is proposed within the outer portion of the Riverfront Area to Paul Brook; Selwyn Road and a developed residential lot occur between the site and Paul Brook. The entire site, with the exception of the existing house, is regulated as Bordering Land Subject to Flooding under the Regulations. As detailed above, the proposed project has been designed to comply with the general performance standards for Bordering Land Subject to Flooding. Except for Riverfront Area and Bordering Land Subject to Flooding, no other wetland resource areas occur on the site. As such, no work is proposed within Land Under Water Bodies and Waterways, Bank, Bordering Vegetated Wetlands, or Isolated Land Subject to Flooding. The 100-foot Buffer Zone associated with the Bank at 58 Selwyn Road does not project onto the subject site; the 100-foot Buffer Zone is not a wetland resource area under the Regulations.

(b) Protection of Rare Species. No project may be permitted within the riverfront area which will have any adverse effect on specified habitat sites of rare wetland or upland, vertebrate or invertebrate species, as identified by the procedures established under 310 CMR 10.59 or 10.37, or which will have any adverse effect on vernal pool habitat certified prior to the filing of the Notice of Intent.

Based upon the NHESP Atlas, 14th Edition, dated August 1, 2017, the site is not located within a mapped Estimated Habitat or Priority Habitat and no mapped Certified Vernal Pools occur on or near the site. As such, the proposed project will not have any adverse effect on specified habitat sites of rare wetland or upland, vertebrate or invertebrate species, and will not have any adverse effect on vernal pool habitat.

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

The lot was created in 1953. The current owner acquired the site on November 26, 2019 and has no interest or control over adjacent or abutting properties. Again, the subject site is 7,709± square feet in size and the southeastern 4,550± square feet of the site is located within the outer portion of the Riverfront Area of Paul Brook. The entire site, with the exception of the existing house, is located within Bordering Land Subject to Flooding and Ordinance Floodplain. Selwyn Road and a developed residential lot at 58 Selwyn Road occur between the subject site and Paul Brook. The project purpose is to expand the existing single-family house and replace associated site features. Approximately 1,910± square feet of the proposed house, driveway, and front stairs/front walkway are located within the footprint of the existing house, driveway, front stairs, and front walkway in the Riverfront Area. The balance of the degraded area on the site will be converted to lawn. The work proposed within degraded areas within the Riverfront Area is exempt from the requirements for an alternatives analysis and will be addressed under the redevelopment standards in a subsequent section of this letter. The balance of the proposed project within Riverfront Area, approximately 559± square feet of house, driveway, front stairs/walkway, and deck, is subject to the general performance standards.

The proposed house has a footprint that has been increased to 1,847± square feet from the existing house footprint of 1,731± square feet. The expansion of the house is proposed via a second story addition and via cantilevered expansions on the front, left side, and rear of the house. A small expansion of the house into the existing driveway is proposed for the garage. A portion of the foundation at the northern corner of the house will be removed to provide compensatory storage. The existing foundation is largely proposed to be retained; as such, the house cannot be relocated further from Paul Brook. This form of expansion limits the increase in degraded area within the Riverfront Area. The proposed house, driveway, and front walk are approximately the same distance or further from Paul Brook than the existing house, drive, and front walkway. The proposed driveway has been expanded to allow safe access to and egress from the proposed one-car garage while providing for convenient parking outside of the garage for up to two cars; the proposed front walkway has been reduced in size and located further from the brook than the existing walkway. The large concrete front stairs and landing will be removed and replaced with timber front stairs. This proposed project, including enhancement plantings, represents an improvement over existing conditions relative to the protection of the statutory interests.

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

The subject site is 7,709± square feet in size and the southeastern 4,550± square feet of the site is located within the outer portion of the Riverfront Area of Paul Brook. The entire site, with the exception of the existing house, is located within Bordering Land Subject to Flooding and Ordinance Floodplain. Selwyn Road and a developed residential lot at 58 Selwyn Road

occur between the subject site and Paul Brook. The project purpose is to expand the existing single-family house and replace associated site features. Approximately $1,910\pm$ square feet of the proposed house, driveway, and front stairs/front walkway are located within the footprint of the existing house, driveway, front stairs, and front walkway in the Riverfront Area. The balance of the degraded area on the site will be converted to lawn. The work proposed within degraded areas within the Riverfront Area is exempt from the requirements for a no significant adverse impact analysis and will be addressed under the redevelopment standards in a subsequent section of this letter. The balance of the proposed project, approximately $559\pm$ square feet of house, driveway, front stairs/walkways, and deck is subject to the general performance standards.

The proposed house has a footprint that has been increased to $1,847\pm$ square feet from the existing house footprint of $1,731\pm$ square feet. The majority of the proposed house expansion will occur as a second story addition, as cantilevered extensions above the floodplain, and as an expansion of the foundation footprint for the proposed garage addition. A portion of the existing foundation at the northern corner of the house will be removed and covered with a post supported second story addition. A post supported deck is proposed to the rear of the house; the deck has been located such that a portion of the deck is outside of the Riverfront Area. The existing foundation is largely proposed to be retained; as such, the house cannot be relocated further from Paul Brook. The proposed driveway has been expanded to allow safe access to and egress from the proposed one-car garage while providing for convenient parking outside of the garage for up to two cars; the proposed front walkway has been reduced in size and located further from the brook than the existing walkway. The proposed project has been designed to and will result in an improvement over the existing condition. Redevelopment activities associated with the proposed project are located within the limit of the existing degraded areas. The total degraded area in the Riverfront Area on the site is proposed to be increased by $325\pm$ square feet from $2,144\pm$ square feet under existing conditions to $2,469\pm$ square feet under proposed conditions. The project does not trigger stormwater improvements under the Regulations or City of Newton requirements. A bounded $660\pm$ square foot enhancement planting area is proposed as mitigation and to serve as an improvement over the existing condition.

The total area of Riverfront Area on the site proposed to be altered, excluding proposed mitigation, is $3,250\pm$ square feet, including both new development and redevelopment activities. Given the age of the lot, the overall proposed Riverfront Area alteration is below the threshold of 5,000 square foot or 10%, whichever is greater. The proposed project is exempt from stormwater management standards under the Regulations and does not trigger drainage improvements under the City of Newton requirements. Given the previously developed nature of the Riverfront Area on and near the site and the presence of Selwyn Road and a developed residential lot between the site and Paul Brook, the proposed project will not impair the capacity of the Riverfront Area to provide important wildlife habitat functions. A bounded $660\pm$ square foot enhancement planting area will be established within the Riverfront Area on the site. The proposed project will serve to augment the wildlife habitat characteristics of the Riverfront Area on the site through proposed native sapling, shrub, and small shrub/ground cover plantings. The proposed project incorporates erosion

control barriers at the limit of work. This barrier will serve as a limit of work and will serve to protect groundwater and surface water quality from non-point source pollution.

Section 10.58(5) of the Regulations provides the performance standards for redevelopment within previously developed and degraded Riverfront Area, which states:

Redevelopment Within Previously Developed Riverfront Areas; Restoration and Mitigation. Notwithstanding the provisions of 310 CMR 10.58(4)(c) and (d), the issuing authority may allow work to redevelop a previously developed riverfront area, provided the proposed work improves existing conditions. Redevelopment means replacement, rehabilitation or expansion of existing structures, improvement of existing roads, or reuse of degraded or previously developed areas. A previously developed riverfront area contains areas degraded prior to August 7, 1996 by impervious surfaces from existing structures or pavement, absence of topsoil, junkyards, or abandoned dumping grounds. Work to redevelop previously developed riverfront areas shall conform to the following criteria:

(a) At a minimum, proposed work shall result in an improvement over existing conditions of the capacity of the riverfront area to protect the interests identified in M.G.L. c. 131 § 40. When a lot is previously developed but no portion of the riverfront area is degraded, the requirements of 310 CMR 10.58(4) shall be met.

The subject site is 7,709± square feet in size and the southeastern 4,550± square feet of the site is located within the outer portion of the Riverfront Area of Paul Brook. The entire site, with the exception of the existing house, is located within Bordering Land Subject to Flooding and Ordinance Floodplain. Selwyn Road and a developed residential lot at 58 Selwyn Road occur between the subject site and Paul Brook. The balance of the proposed project meets the general performance standards as detailed above.

The proposed project has been designed to and will result in an improvement over the existing condition. A total of 1,910± square feet of the proposed house (including part of the second story addition over the existing one-story structure), paved driveway, front stairs, and front walkway are located within the Riverfront Area within existing degraded areas. Approximately 559± square feet of the proposed development are proposed to occur in lawn outside of the existing degraded areas; the balance of the existing degraded area will be converted to lawn. The proposed project does not trigger stormwater improvements under the Regulations of the City of Newton requirements. The project will also enhance a 660± square foot area of lawn in the southern corner of the site. The proposed native sapling, shrub, and small shrub/ground cover plantings will serve to enhance wildlife habitat features and serve to improve the capacity of the Riverfront Area on the site to protect the statutory interests presumed to be significant within the Riverfront Area.

(b) Stormwater management is provided according to standards established by the Department.

The proposed project is exempt from stormwater management standards under the Regulations. As detailed on Sheet 2 of the Site Plan, the increase in impervious area on the site as a result of the proposed project is below the threshold that triggers drainage improvements under City of Newton requirements. As such, stormwater improvements are not proposed as part of this project.

(c) Within 200-foot riverfront areas, proposed work shall not be located closer to the river than existing conditions or 100 feet, whichever is less, or not closer than existing conditions within 25-foot riverfront areas, except in accordance with 310 CMR 10.58(5)(f) or (g).

The existing house, driveway, and front walk are 161, 135, and 135 feet from Paul Brook, respectively; the proposed house, paved driveway, and front walk are 159, 135, and 149 feet from Paul Brook, respectively. As such, enhancement planting areas are proposed as part of this project. In any event, Selwyn Road and a fully developed residential lot occur between the site and Paul Brook. Redevelopment activities associated with the proposed project are located within the limit of the existing degraded areas. The balance of the proposed work meets the general performance standards at 310 CMR 10.58(4).

(d) Proposed work, including expansion of existing structures, shall be located outside the riverfront area or toward the riverfront area boundary and away from the river, except in accordance with 310 CMR 10.58(5)(f) or (g).

Redevelopment activities associated with the proposed house, driveway, and front walkway total 1,910± square feet and are located within the limit of the existing degraded areas. With the exception of a slight forward projection of the proposed garage, the balance of the work is either cantilevered above the floodplain elevation, a second story addition, or a new post supported deck that has been located as far from the brook as possible. The balance of the proposed work meets the general performance standards at 310 CMR 10.58(4).

(e) The area of proposed work shall not exceed the amount of degraded area, provided that the proposed work may alter up to 10% if the degraded area is less than 10% of the riverfront area, except in accordance with 310 CMR 10.58(5)(f) or (g).

Redevelopment activities associated with the proposed project do not exceed the amount of existing degraded area within the Riverfront Area on the site. The balance of the proposed work meets the general performance standards at 310 CMR 10.58(4).

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

- 1. removal of all debris, but retaining any trees or other mature vegetation;*
- 2. grading to a topography which reduces runoff and increases infiltration;*

3. coverage by topsoil at a depth consistent with natural conditions at the site; and
4. seeding and planting with an erosion control seed mixture, followed by plantings of herbaceous and woody species appropriate to the site.

Restoration of degraded Riverfront Area on the site is not proposed as part of this project.

(g) When an applicant proposes mitigation either on-site or in the riverfront area within the same general area of the river basin, alteration may be allowed notwithstanding the criteria of 310 CMR 10.58(5)(c), (d), or (e) at a ratio in square feet of at least 2:1 of mitigation area to area of alteration not conforming to the criteria or an equivalent level of environmental protection where square footage is not a relevant measure. Alteration not conforming to the criteria shall begin at the riverfront area boundary. Mitigation may include off-site restoration of riverfront areas, conservation restrictions under M.G.L. c. 184, §§ 31 to 33 to preserve undisturbed riverfront areas that could be otherwise altered under 310 CMR 10.00, the purchase of development rights within the riverfront area, the restoration of bordering vegetated wetland, projects to remedy an existing adverse impact on the interests identified in M.G.L. c. 131, § 40 for which the applicant is not legally responsible, or similar activities undertaken voluntarily by the applicant which will support a determination by the issuing authority of no significant adverse impact. Preference shall be given to potential mitigation projects, if any, identified in a River Basin Plan approved by the Secretary of the Executive Office of Environmental Affairs.

An enhancement planting area totaling 660± square feet in size will be established within the Riverfront Area in the southern corner of the site. Again, it must be noted that an existing paved road and a developed single-family house lot occur between the site and Paul Brook. Following limited grading, the saplings, shrubs, and small shrubs/ground cover detailed above will be established within the area. These plantings will serve to stabilize this area, reduce stormwater runoff, and provide enhanced wildlife habitat, including cover, perching, and foraging habitat, compared to the existing condition. The enhancement planting area will be monitored near the end of the growing season for two years after it is established with survival by strata as specified in the Order after two growing seasons the threshold for success.

(h) The issuing authority shall include a continuing condition in the Certificate of Compliance for projects under 310 CMR 10.58(5)(f) or (g) prohibiting further alteration within the restoration or mitigation area, except as may be required to maintain the area in its restored or mitigated condition. Prior to requesting the issuance of the Certificate of Compliance, the applicant shall demonstrate the restoration or mitigation has been successfully completed for at least two growing seasons.

Enhancement of Riverfront Area is proposed as part of this project in the form of a bounded 660± enhancement planting area as shown on the Site Plan. As such, the applicant is not averse to the above-referenced continuing condition on these bounded areas.

Ms. Irina Burmenko
May 28, 2021
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Conclusion

In conclusion, it is EcoTec's opinion, based upon the information provided on the Site Plan and in this letter, that the proposed project meets the general performance standards for Bordering Land Subject to Flooding and the general performance standards and redevelopment standards for work within the Riverfront Area under the Regulations. The proposed project results in a slight increase in compensatory flood storage at all flood increments, an increase in impervious area on the site that does not trigger City of Newton drainage requirements, and an increase in degraded area within the Riverfront Area; mitigation for this latter increase in the form of a bounded enhancement planting area has been provided as part of the project. This plan as proposed meets the applicable performance standards and by regulation serves to protect the statutory interests.

Cordially,
ECOTEC, INC.



John P. Rockwood, Ph.D., SPWS
Principal Environmental Scientist

Attachments (4; 7 pages)

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