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June 8, 2022  
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South Hadley Conservation Commission  
Town Hall  
116 Main Street  
South Hadley, MA 01075

Re: DEP File WE 288-0478, Response to 5/17/2022 DEP Comments and 5/24/2022 Conservation Commission Comments.  
11 San Souci Drive  
South Hadley, Massachusetts

Dear Conservation Commission Members:

In response to comments provided by the Department of Environmental Protection - Western Regional Office, GZA GeoEnvironmental (GZA) is pleased to present our response to the Conservation Commission on behalf of the Applicant, Mr. Michael Bean. We have formatted our response to show the DEP comment first followed by our response in **blue** text.

[1] The Applicant should clarify if the grading located in BVW is quantified and included on the WPA Form 3 and how the graded area of BVW will be restored.

**GZA Response: The BVW alteration resulting from the driveway and grading has been quantified on WPA Form 3. The graded area of the BVW near the driveway entrance will be restored with a N.E. Wet Mix or equal having predominantly herbaceous species.**

[2] The Commission should consult the Massachusetts Inland Wetland Replication Guidelines (March 2002) in review of the wetland replication area, including design and monitoring requirements. Per the Guidelines, the project monitor should have a minimum of 5 years of experience in the construction of wetland replication areas and general construction practices and should be on-site to monitor the excavation, grading, and planting of the replication area, and monitoring for invasive species should be conducted.

**GZA Response: Included in the NOI application we provided a check list of replacement wetland features that DEP has developed to summarize what is needed to demonstrate compliance with the 2002 Massachusetts Inland Wetland Replication Guidelines.**

[3] Per the Massachusetts Wetland Replication Guidelines (March 2002), soils from existing wetlands containing reed canary grass, an invasive species, should never be used in wetland replication areas.

**GZA Response: The applicant intends to import an appropriate soil mix that has a fine sandy loam or finer texture to improve water retention and be similar to the lost wetland. Use of composted leaf litter to amend the organic content is planned at a ratio of 1:1 by volume of topsoil to organic amendment. No wood chips or peat moss are allowed as an amendment.**

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[4] The proposed erosion control barrier locations, as shown on the Project Drawings, do not extend around the proposed driveway and grading impacts within BVW.

**GZA Response:** The site plan has been revised to clarify the limits of work better and we have expanded the depiction of the limit of work to encompass the full work area because the land outside of the wetland resource area is entirely within the Buffer Zone.

[5] The Project Drawings contain two different line types that indicate the Limit of Work. The Applicant should clarify the location of the Limit of Work.

**GZA Response:** See response #4

[6] The Applicant should clarify why no seeding of the wetland replication area is proposed, and which seed mix will be used in upland areas.

**GZA Response:** The Applicant intends to use a wetland seed mix in addition to the 2-inch diameter herbaceous plugs. The area will be mulched with straw.

[7] Per 310 CMR 10.55(4)(b)(4), the replacement area shall have an unrestricted hydraulic connection to the same water body or waterway associated with the lost area. How does the Applicant intend to maintain hydrology across the driveway.

**GZA Response:** The BVW on the property is connected to two waterbodies one to the east and one to the west of the property. Therefore, each side of the driveway will remain connected to other BVW areas and Bank.

[8] The Applicant should provide information to show that impacts to the Buffer Zone were avoided and minimized. Per 310 CMR 10.53(1), for work in the buffer zone subject to review under 310 CMR 10.02(2)(b)3., the issuing authority shall impose conditions to protect the interests of the Act identified for the adjacent resource area. The potential for adverse impacts to resource areas from work in the buffer zone may increase with the extent of the work and the proximity to the resource area. The issuing authority may consider the characteristics of the buffer zone, such as the presence of steep slopes, that may increase the potential for adverse impacts on resource areas. Conditions may include limitations on the scope and location of work in the buffer zone as necessary to avoid alteration of resource areas. The issuing authority may require erosion and sedimentation controls during construction, a clear limit of work, and the preservation of natural vegetation adjacent to the resource area and/or other measures commensurate with the scope and location of the work within the buffer zone to protect the interests of the Act.

**GZA Response:** The Applicant will work closely with the Conservation Commission to address this concern. However, due to the physical constraint of the property (i.e., steep topography), a large area of grading is necessary to develop a site that is accessible and remains stable after construction.



**Comments provided by the South Hadley Conservation Commission:**

Wednesday, May 25, 2022

Notes from 11 San Souci NOI Public Hearing 5/18/22

**QUESTIONS/COMMENTS:**

1. Is the 5% cross slope at the sidewalk proposed because it meets existing grade? 2.5% is ADA. **No changes are proposed to the sidewalk, so the grading concern is an existing condition.**
2. Is there an existing curtain drain along the sidewalk? **Not that we could see.**
3. Are the utilities tied in? Please show utility connections and proposed locations between street and house. (See proposed condition 4.c.) Note: 5/24 email from DPW stated they are stubbed in. **It is our understanding that utilities are stubbed under the sidewalk at the property line.**
4. Hydrology
  - a. How is the intermittent stream fed? **From the south under Sunrise Circle and not from 11 San Souci.**
  - b. What does the hydrology of the seeping hillside (BVW) at a larger scale look like? (Including Gormally Conservation Area, intermitted streams to the N & S, surrounding BVW). **The wetlands on 11 San Souci are both connected to an intermittent stream to the east and to a waterbody observed on an aerial image and located to the southwest of the property, see Figure 1.**
  - c. Is there any hydrologic connection interrupted where the driveway is proposed?
5. Please estimate the construction phases and time frame for each phase. **Our current estimate is that site grading and E&S controls 4 weeks; Foundation installation 4-8 weeks; house construction 4-6 months (assumed); final landscaping 3-4 weeks.**
6. Show the estimated perimeter of over-dig for foundation excavation. **See site plan.**
7. Provide a water management plan for the fountain hole during construction. If it fills with water, how will it be pumped and managed? **We request that this item be made a condition of approval, so when a builder is chosen that information can be more accurate.**
8. Please show the following in separate site plans: **Completed**
  - a. Erosion control
  - b. Stormwater system. Those discussed at the public hearing include: any swales, yard drains, culverts, curtain drains, and foundation drains proposed in the project.
  - c. Vegetation. Trees or shrub stands to be removed & replacement plantings. Include replication area.
9. Consider additional rain gardens to reduce sheet flow from impervious surface into wetland, especially at the crest of the hill and near wetland replication area. **The design criteria for a rain garden would preclude this property from using that feature for infiltration because of the high groundwater.**
10. Consider reducing scope of the project from a 3-car to a 2-car garage to reduce impact to the Buffer Zone. **Please make this a condition of approval.**
11. Consider significantly reducing the amount to lawn area, especially within 20' of the resource areas. **The site constraints of the property make it difficult to provide less lawn area given the proximity of the wetland to the building location. The disturbed area adjacent to the driveway that is within the BVW will be overseeded with a wetland seed mix (e.g., NE Wet Mix) and not turf grass. In general, 20 feet from wetland would be up to the house or driveway; therefore, providing a no disturb zone is not practicable on this property.**



12. Please explain why the soil at the edge of the asphalt drive will not erode and channel during heavy rain events. The swales will be vegetated with a dense stand of grass species and a turf reinforcement (Vmax by North American Green or equal) mat will be used in the bottom of the swale to greatly reduce the potential for scouring of the soil. This mat is a permanent product to last long into the future.
13. Note the lack of porches, decks, or landings at the perimeter of the house. If there will be any such amenities that will expand the footprint, please include them on the plan. The entrance stairs were added to the site and at this time we are not aware of decks or porches being proposed.
14. Who is accountable, and how are they held accountable, if during construction if the site experiences excessive erosion and destruction beyond that shown on the plans? The Applicant, Michael Bean.
15. Consider using a pervious paving material instead of asphalt. The design criteria for pervious pavement precludes that feature from being used on a site with high groundwater, so this feature is not appropriate for this site.

We look forward to working with the Commission to satisfactorily address their concerns and allow for the construction of this single-family home.

Very truly yours,

GZA GEOENVIRONMENTAL, INC.

A handwritten signature in black ink that reads "Daniel M. Nitzsche".

Daniel M. Nitzsche, CPESC, CESSWI, SE, SI  
Senior Wetland Scientist