



Environmental Consulting & Restoration, LLC



PEER REVIEW

TO: Town of West Tisbury Conservation Commission
FROM: Stan Humphries & Cameron Larson @ ECR
DATE: February 6, 2024
RE: 130 Plum Bush Point Road, West Tisbury

INTRODUCTION

Environmental Consulting & Restoration, LLC (ECR) was requested by the West Tisbury Conservation Commission to review and comment on the proposed project included within the NOI application for the property located at 130 Plum Bush Point Road in West Tisbury (the site). ECR reviewed the NOI application, associated site plans and supporting documents in the November 29, 2023 submittal by Sourati Engineering Group, LLC (Sourati) as provided to ECR by the West Tisbury Conservation Agent, Maria McFarland. On January 30, 2024, accompanied by the Conservation Agent and George Sourati, ECR performed a site evaluation of the existing site conditions and the wetland resource areas including Coastal Bank, Bordering Vegetated Wetlands, Salt Marsh and Land Subject to Coastal Storm Flowage. The project was also evaluated for compliance with the Massachusetts Department of Environmental Protection Regulations and the Town of West Tisbury Wetlands Protection Bylaw Regulations, revised June 28, 2016.

SITE AND PROJECT EVALUATION

The site consists of a residential property with a long meandering driveway that stretches from Plum Bush Point Road to the existing home situated within the eastern-most portion of the site. Most of the site is undeveloped and forested, but also includes an existing guest house within the western portion of the site, landward of all wetland resource areas and buffer zones. Vegetation throughout the upland areas includes Pitch Pine (*Pinus rigida*), Oak (*Quercus spp.*), Black Cherry (*Prunus serotina*), Black Huckleberry (*Gaylussacia baccata*), Greenbrier (*Smilax rotundifolia*), Pennsylvania Sedge (*Carex pensylvanica*), all typical of the area. Subsurface soils were also consistent through the upland and included an organic horizon approximately 1-3 inches in depth followed by medium to coarse sand ranging in color (Munsell chroma/value) from 10YR3/3 to 10YR5/6 to a depth of at least 20 inches – indicative of an upland, non-hydric soil. The site is mostly hilly, but from the existing home the topography generally trends downgrade to the east and south. Tiah's Cove abuts the site to the east with associated wetland resource areas that extend into the eastern portion of the property. Moving landward from Tiah's Cove the site contains a Salt Marsh, Bordering Vegetated Wetland (BVW), Land Subject to Coastal Storm Flowage (LSCSF) and a Coastal Bank. The existing home is located within the buffer zone to the Salt Marsh and BVW as well as within LSCSF (the house itself is elevated on piles above the flood zone).

ECR reviewed the delineation of the BVW and Salt Marsh in the field. The BVW was flagged by LEC Environmental and appears to accurately mark the landward limit of the BVW. No flags were observed along the landward limit of the Salt Marsh (located seaward of the BVW line), but based on what is shown on the site plan as compared to what was observed in the field, it appears the landward limit of the Marsh is accurately depicted on the site plan. At this time, no work is being proposed within the BVW or Salt Marsh.

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The Coastal Bank is depicted on the site plan as a fragmented Bank that exists immediately north and west of the existing home. A change in slope, while not drastic, was obvious in the field in this portion of the site. As part of ECR's review, the memo prepared by Epsilon Associates regarding the Coastal Bank Assessment was reviewed. It is ECR's professional opinion that Epsilon Associates (Epsilon) applied the appropriate methodology for delineating the Coastal Bank and the Coastal Bank has been accurately depicted on the site plans. As noted in Epsilon's memo, MA DEP has established guidance for delineating a Coastal Bank based on the slope of a landform and the FEMA flood zone. This guidance provides clear and objective criteria to determine the presence of a Coastal Bank and in the case of 130 Plum Bush Point Road, the criteria are met. ECR notes that in Epsilon's memo, the profile view of Transect A did omit a small section of Coastal Bank from elevation 7 to elevation 8; this appears to be a clerical error as the Coastal Bank is correctly depicted on the site plan from elevation 7 to elevation 11 along Transect A.

Lastly, in regards to the wetland resource areas, the site plan correctly depicts the FEMA flood zone at elevation 11. The portion of the site from elevation 11 to the edge of Tiah's Cove is located within Land Subject to Coastal Storm Flowage.

The proposed project includes renovating the existing home to include expanding the existing deck, constructing an addition, constructing a new garage/studio and installing a new septic system. Portions of the proposed work are located within a Coastal Bank, within LSCSF and within the 100-foot buffer zones associated with those resource areas as well as the buffer zones associated with a BVW and Salt Marsh. Therefore, the performance standards set forth by the MA Wetland Protection Act Regulations and the Town of West Tisbury Wetlands Protection Bylaw Regulations (the local Regulations) for the aforesaid resource areas must be met. Compliance with the MA WPA Regulations were detailed by Sourati, while compliance with the local Regulations were detailed in the Epsilon memo.

Epsilon concluded that "due to its low height and unique landscape position (i.e., landward of an existing structure and substantially removed from Tiah's Cove), the Coastal Bank does not play a significant role in storm damage prevention or flood control." This conclusion was used to support the performance standard analysis provided by both Epsilon and Sourati. ECR does not agree with Epsilon Associates conclusion that the Coastal Bank does not play a significant role in storm damage prevention or flood control. Furthermore, ECR does not recommend the Commission make a finding that the presumption of significance relative to the Coastal Bank's function to provide storm damage prevention and flood control has been overcome. ECR's argument is based on the following:

- 1) The discontinuity of the Coastal Bank does not diminish its ability to provide storm damage and flood protection where the Bank exists. ECR acknowledges that the Bank is discontinuous and is accurately shown on the site plan, it also likely tapers away as one moves off site to the north. But the fact remains that the flood waters in a 100-year storm are predicted to reach the Bank and the Bank would function as a vertical buffer to those flood waters, no matter its size.
- 2) Epsilon Associates argues in their memo that the Coastal Bank cannot possibly buffer incoming floodwaters because the Bank is located landward of the existing residence. While the Bank is located on the landward side of the existing home, the existing home is constructed on piles and therefore floodwaters would certainly flow under the existing home and be buffered by the Coastal Bank.
- 3) Epsilon Associates also argues that the significance of the Bank is diminished because it is substantially removed from Tiah's Cove. However, because of the gently sloping topography along the immediate shore of the Cove, the flood zone extends a significant distance from the Cove, which the defined Bank would buffer.

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Based on the points raised above, it is ECR's professional opinion that the applicant has not clearly shown that the Coastal Bank does not play a role in storm damage prevention or flood control.

In summary, if the Commission agrees the Coastal Bank onsite is significant to storm damage prevention and flood control then the performance set for by the MA Wetland Protection Regulations (310 CMR 10.30(6)-(8)) and the performance standards set forth by the Town of West Tisbury Wetlands Protection Bylaw Regulations (Section IX C. 1.-9.) must be met for work within the Coastal Bank.

RECCOMENDATIONS & FINAL COMMENTS

Assuming the West Tisbury Conservation Commission agrees that the applicant has not clearly shown that the Coastal Bank does not play a role in storm damage prevention or flood control, ECR believes there are options the applicant could propose to meet the performance standards for work on a Coastal Bank as set forth by the MA WPA Regulations and the local Regulations. Firstly, the proposal to utilize piers to support the new addition that will span the Coastal Bank (as detailed on the Additional Information Page in the NOI Submittal) is an excellent way to avoid an adverse effect to the Bank as required by 310 CMR 10.30(6). However, the impacts of shading on the existing vegetation under the proposed addition must be considered. ECR observed the areas under the existing home to be completely void of vegetation (see the attached photograph pages). It is likely that over a very short period of time the vegetation that is being shaded by the new addition would die back and ultimately lead to exposed soils – adversely affecting the stability of the bank. ECR recommends that the applicant consider a design that will stabilize the area under the proposed addition, which may include crushed stone, coir fabric, a combination of the two, or other innovative solution. If the applicant can demonstrate that the Coastal Bank will remain stable in the long-term, the Commission may find no adverse effect is caused by the proposed project.

Furthermore, the proposed project must meet the performance standards set forth by the local regulations governing work within Land Subject to Coastal Storm Flowage (please note, there are no performance standards for work within LSCSF under the MA WPA Regulations). As reviewed, ECR has no concerns regarding the proposed project meeting the performance standards for LSCSF under the local Regulations.

Regarding work within the buffer zones to the wetland resource areas onsite, the applicant has submitted numerous waiver requests for work within the no-build and no-disturbance zones. The local Regulations state that a waiver may be granted to allow activities in these zones when no other practicable alternative exists.

One question did arise during ECR's review: Is the existing septic system being abandoned? If so, this seems as though this would certainly be considered an improvement over the existing conditions.

Lastly, if the Commission is seeking additional improvements to the site conditions to offset the proposed work within the wetland resource areas and associated buffer zones, the applicant may consider restoring portions of the site to a native buffer. ECR observed an area of maintained lawn within the southeastern corner of the lot, immediately west of the existing pier. While its likely the property owner utilizes this area for recreation, as it is really the only area of maintained lawn on the site, it does provide an opportunity to expand the existing buffer to BVW and Salt Marsh as well as enhance LSCSF. The applicant may consider removing the lawn, or a portion of the lawn, and planting native, salt-tolerant plant species to enhance the buffer, improve wildlife habitat, improve flood control, etc. While the performance standards for the resource areas impacted by the project do not specifically require mitigation, the local regulations

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do allow for the Commission to impose additional requirements as necessary to protect the interest protected by the Bylaw.

ECR appreciates the opportunity to provide a review of the proposed project at 130 Plum Bush Point Road for the West Tisbury Conservation Commission. If the Commission has any questions for ECR, please do not hesitate to contact us at stan@ecrwetlands.com or cameron@ecrwetlands.com or by phone at (617) 543 – 1654 or (508) 648 – 3957.

Attachment:

- 1.) Photograph Pages



Photograph #1 – View east toward the front of the existing home.



Photograph #2 – View east of toward the existing home and the Coastal Bank.



Photograph #3 – View northwest of the Coastal Bank and the location of the proposed addition.



Photograph #4 – View under the existing home that shows the exposed soils and lack of vegetation.



Photograph #5 – View to the rear of the home across the maintained lawn that abuts the BVW and Salt Marsh.



Photograph #6 – View of the piles that support the existing home. Flood waters can travel under the home and be buffered by the Coastal Bank.