



June 12, 2023

Mr. Eric Arena
Borough of Mendham
Environmental Commission, Open Space, and Shade Tree Committee
2 W. Main Street
Mendham, NJ 07945

**RE: V-FEE MENDHAM APARTMENTS LLC DEVELOPMENT APPLICATION
REVISED DOCUMENTS
84-90 MAIN STREET
BLOCK 801, LOT 20
MENDHAM BOROUGH, MORRIS COUNTY**

Dear Mr. Arena:

As you requested, One Water Consulting LLC (One Water) has reviewed the revised documents for the above-referenced application on behalf of the Borough of Mendham Environmental Commission, Open Space, and Shade Tree (ECOSST) Committee. V-Fee Mendham Apartments, LLC has proposed a multi-family residential development on Block 801, Lot 20 in the Borough of Mendham, Morris County, New Jersey. I have prepared this letter to update our comments related to the overall application based on this revised information.

In addition to the original application documents reviewed as part of our February 15, 2023 review letter, we have reviewed the following revised and supplemental documents:

1. Flood Hazard Area Study, Block 801, Lot 20, 84-90 East Main Street, Borough of Mendham, Morris County, New Jersey, by Princeton Hydro, LLC, last revised March 2023.
2. NJDEP Flood Hazard Area Control Act Permitting, Proposed Multi-Family Residential Development, Block 801, Lot 20, 84-90 East Main Street, Borough of Mendham, Morris County, New Jersey, by Stonefield Engineering & Design, LLC, last revised May 19, 2023.
3. NJDEP Permitting Plans, V-Fee Mendham Apartments LLC, Proposed Multi-Family Residential Development, Block 801, Lot 20, 84-90 East Main Street, Borough of Mendham, Morris County, New Jersey, by Stonefield Engineering & Design, LLC, last revised May 19, 2023.
4. Preliminary and Final Site Plans, V-Fee Mendham Apartments LLC, Proposed Multi-Family Residential Development, Block 801, Lot 20, 84-90 East Main Street, Borough of Mendham, Morris County, New Jersey, by Stonefield Engineering & Design, LLC, last revised May 19, 2023.
5. Stormwater Management Report, Proposed Multi-Family Residential Development, Block 801, Lot 20, 84-90 East Main Street, Borough of Mendham, Morris County, New Jersey, by Stonefield Engineering & Design, LLC, last revised May 19, 2023.
6. Stormwater Management Operations & Maintenance Manual, Proposed Multi-Family Residential Development, Block 801, Lot 20, 84-90 East Main Street, Borough of

- Mendham, Morris County, New Jersey, by Stonefield Engineering & Design, LLC, date April 10, 2023.
7. NJDEP Response Letter from EcolSciences, Inc., dated April 13, 2023.
 8. Geotechnical Report, SWM Area Evaluation for Proposed Residential Development, 84-90 East Main Street, Block 801, Lot 20, Mendham, Morris County, New Jersey, by Whitestone, dated March 21, 2023.

Flood Hazard Area and Riparian Zone Issues

1. The applicant's engineer has mapped additional waters on the west and north sides of the property. The applicant's environmental consultant is contending that these waters on the west and north sides of the property that we discussed in our previous letter should not be regulated because they are manmade features with less than a 50-acre drainage area. However, as we discussed, these features appeared to be naturally occurring in the field or waters that historically possessed a naturally occurring discernible channel that have been modified. Note that these features contained water during a site visit performed by One Water on January 31, 2023 during a period of dry weather. Photographs from our site visit are provided in Attachment A. Photographs provided by EcolSciences, Inc. further demonstrate that these features are naturally occurring.
2. The mapped waters should possess a 300-foot riparian zone since they would be considered Category One (C1) waters. Note that if the riparian zones were drawn based on these regulated waters, the proposed stormwater outfalls would be within the 150-foot inner Category One (C1) Riparian Zone. A stormwater discharge to the inner 150-foot riparian zone is not permitted.
3. The proposed discharges from the new development will be conveyed through stormwater outfalls that are within the 300-foot riparian zone. Therefore, the Applicant/Engineer should demonstrate compliance with N.J.A.C. 7:13-11.2(j)4 including reduction of the post-construction load of total suspended solids by 95% of the anticipated load from the development site.
4. There is a 36" diameter stormwater outfall located on the north portion of the property that has now been mapped by the Applicant's engineer in the revised plans. Stormwater runoff from the development site will be conveyed through this outfall. The outfall was covered with a brush pile, with no conduit outlet protection observed. The outfall should be reconstructed to comply with New Jersey Soil Erosion and Sediment Control Standards. Disturbance related to maintenance and reconstruction of the stormwater outfall should be included in the NJDEP permit application package.
5. There are existing trees in close proximity to the existing structures in the rear of the property. The applicant/engineer should locate all trees and clarify if these trees will remain or be removed.
6. The limit of disturbance should be shown on the plans in addition to the limit of work.

7. The flood hazard area has been delineated using Method 6, based on the Flood Hazard Area Study by Princeton Hydro, LLC, dated May 2021. Note that there is no NJDEP Department Delineation or FEMA Delineation of the floodplain in the project area. The flood hazard area is of critical importance to this project due to the multi-family residential nature of the development. We have the following comments related to the Flood Hazard Area Study:
 - a. The NJDEP Flood Hazard Area Technical Manual (FHA TM) provides detailed requirements and procedures for performing Method 6 Calculations. The Flood Hazard Area Study should be revised to follow these NJDEP requirements.
 - b. We have run USGS StreamStats as a point of reference for the total drainage area to the stream at the site. The StreamStats report is provided as Attachment B which shows a drainage area of 173 acres, which is more than double the area of 75 acres presented in the Flood Hazard Area Study.
 - c. The approximate method (Method 5) was analyzed for the site based on a drainage area of 173 acres in Watershed Management Area 8. The resulting flooding depth from Method 5 is 9 feet. However, the Flood Hazard Area Study indicates flooding depths of approximately 1 foot at the cross-sections at the site. This much of a discrepancy is unusual, and we recommend the applicant confirm that the method 6 calculations are accurate.
 - d. The Hydrologic and Hydraulic Analysis must extend at least 500 feet upstream and downstream of the property limits. The Hydrologic and hydraulic model must be extended to accurately calculate the floodway and floodplain on the site.
 - e. The Section numbering does not appear to match the actual distances between sections. For example, there appears to be more distance between Section 1407 and 1430 than there is between Section 1430 and 1462. Please clarify measurement of cross-sections and that the HEC-RAS model accurately represents locations of cross-sections.
 - f. The cross-section areas identified as “ineffective flow” in Sections 1407 through 1622 actually receives runoff from an outfall off of Dean Road. The contributory watershed to this outfall should be included in the model, with this channel modeled as a separate reach. Note that there appears to be an interconnection pipe through the bank of this reach that would hydraulically connect the subject stream to this reach from the outfall off of Dean Road that has not been considered. A photograph of this interconnection pipe has been provided in Attachment A.
 - g. A curve number of 98 for open water/wetland areas should be utilized.

Wetlands Issues

1. The perimeter wooded areas and wetlands around the development site are listed in the NJDEP Landscape Project as habitat for Barred Owl, Veery, Indiana Bat, Bobcat, and Great Blue Heron. The proposed project will result in disturbances to the transition area of these wetlands and associated habitat. The applicant should indicate the expected impacts on this extensive list of threatened and endangered species.
2. The applicant is applying for a Transition Area Waiver in accordance with N.J.A.C. 7:7A-8.1(d). This type of waiver requires the applicant demonstrate that the proposed project will not have substantial impacts on the adjacent wetlands. The applicant is proposing a major development directly adjacent to C1 surface waters, exceptional resource value wetlands and significant threatened and endangered species habitat. It would not seem appropriate for a waiver to the regulations be granted at this site.
3. Unmapped trees are present within the limit of disturbance, including in areas designated to be permitted under a Transition Area Waiver in accordance with N.J.A.C. 7:7A-8.1(d). The applicant should survey all trees within the proposed limit of disturbance.

Highlands Issues

1. The proposed project is a major development located within the Highlands Planning Area. The applicant should obtain a determination from NJDEP regarding whether any permits or approvals are required under the Highlands Act.
2. The applicant is proposing a change in use of the proposed property that may result in additional water and sanitary sewer service requirements. Determination should be made that the proposed project is consistent with the applicable Water Allocation Permit and Water Quality Management Plan.

Contaminated Sites Issues

1. The multi-family residential site is proposed on a property that is listed as an active known contaminated site (Caroline Cleaners at Mendham Shopping Center). The applicant should provide information on how the contamination on the site is being addressed, whether the site is suitable for residential use, and how the proposed development will comply with all applicable local, state and federal regulations regarding contamination on residential sites.

Stormwater Issues

1. Ferriero Engineering, Inc. has submitted comments to NJDEP in a letter dated January 23, 2023 focused on the stormwater management design for the proposed development. We agree with the comments and concerns listed in that letter.
2. The new vehicle traffic areas and proposed areas of pavement reconstruction should be treated for water quality in accordance with the stormwater management regulations. In addition, the proposed development discharges to stormwater outfalls that are within the 300-foot riparian zone. Therefore, the Applicant/Engineer should demonstrate compliance with N.J.A.C. 7:13-11.2(j)4 including reduction of the post-construction load of

total suspended solids by 95% of the anticipated load from the development site. This requirement applies regardless of whether or not the site is redeveloped (see NJDEP Stormwater Rule Frequently Asked Questions).

3. The stormwater management hydrologic analysis should be revised to include all stormwater outfalls and discharge points from the site. Hydrograph comparisons should be provided to show that the post-development flows do not exceed pre-development flows at any point in time. For example, there is no analysis of existing vs. proposed flows at the discharge point/rip rap apron on the west side of the development. All proposed BMPs (i.e., pervious pavement) should be included in the proposed conditions hydrologic analysis.
4. Provide basis for calculations demonstrating separation to seasonal high water table. Provide geotechnical testing information for each pervious paving section. For example, pervious paver areas PV-8, PV-9 and PV-10 do not appear to have testing locations associated with them. Show testing locations on the Stormwater Management Plans in the Site Plan drawings.
5. Underdrains should extend beneath the entire area of pervious pavers since field testing indicated poor infiltration rates within the subsoils. There are large portions, particularly for PV-8, PV-9, PV-10 and PV-11 that do not have an underdrain beneath the pervious paver areas.
6. Include NJDEP maintenance field manuals for the proposed stormwater management BMPs proposed for the project as an attachment to the Stormwater Management O&M Manual. (<https://dep.nj.gov/stormwater/maintenance-guidance/#field-manuals>).

Ecological Impact Issues

1. The Ecological Impact Statement (EIS) provides insufficient detail to determine the extent of potential impacts of the development on the surrounding environmentally sensitive areas. The applicant should provide additional detail, particularly on the impacts to the surrounding environment (i.e., existing woodland, wetlands, threatened and endangered species, Category One waterways, etc.).
2. The water quality section incorrectly notes that surface water quality in the area is low to moderate. In fact, the surface water quality is designated as Category One, which is the highest designation in New Jersey for protection from measurable changes in water quality characteristics because of their clarity, color, scenic setting, other characteristics of aesthetic value, exceptional ecological significance, exceptional recreational significance, exceptional water supply significance, or exceptional fisheries resource(s). The surface water quality classification is also designated as trout production waters. The EIS should correctly document the surface water quality classification and provide details as to how the water quality could be impacted by the project.
3. The EIS notes that there is a 150-foot riparian zone associated with the stream. The riparian zone is 300 feet due to the Category One classification for surface water quality.

4. See comments from the Flood Hazard Area Issues section of this letter, as they apply to the Flood Hazard Area & Floodplains sections of the EIS.
5. It should be noted in the existing water and wastewater uses section of the EIS that the existing Club at Mendham is no longer in business.
6. The EIS section on hydrology should be updated to indicate all discharge points from the site. There are at least three existing discharge points.
7. The EIS should note existing threatened and endangered species and mapping in the surrounding areas, including Barred Owl, Veery, Indiana Bat, Bobcat, and Great Blue Heron. The expected impacts to these species should be quantified and any impact mitigation techniques proposed should be identified.
8. The Mendham Historic District is on the New Jersey and National Registers of Historic Places. The EIS should make reference to the Mendham Historic District and provide information regarding the proximity of the project and potential impacts.
9. The project proposes a new automotive sales and service establishment at the site. More detail should be provided on the extent of the automotive sales and service use on the site. Does the proposed use include automotive repair, salvage, recycling of parts, etc.? Is there any potential exposure to hazardous materials on the surrounding environment and proposed residential uses? Depending on the nature of the work, additional stormwater permitting could be required by NJDEP. In addition, the EIS should address the potential impacts of the automotive sales and service establishment on all ecological resources, including air quality, water quality, wetlands, noise levels, traffic, etc.
10. The project proposes a significant increase in both potable water demand and wastewater demand. Is there sufficient capacity within the municipal systems to provide the service that is required? The Applicant/Engineer should confirm that there is sufficient water and wastewater conveyance and treatment capacity and that approvals have been obtained through the NJDEP wastewater management planning, treatment works approval, and water allocation permitting processes. Potable water demand should also include fire flow requirements for the proposed uses.

If you have any questions, please do not hesitate to contact me via telephone at 609-462-9383 or via e-mail at JCosgrove@OneWaterNJ.com.

Sincerely,



James F. Cosgrove, Jr., P.E.
Principal

ATTACHMENT A
SITE PHOTOGRAPHS



Open Space and Trees in Rear Portion of Property



Stream at 12" Diameter Pipe Outfall at Northwest Portion of Property



Stream Located in Northwest Portion of Property



Stream along Western Boundary of Property Adjacent to Development



Stream in Northwest Portion Property Extending Towards Development Area



Stream Located in Northwest Portion of Property



Stream Located on Neighboring Property to the West of the Site



12" Diameter Outfall to the West of the Development Area



Headwall and Stream to the West of the Development Area



Stream to the North of the Development Area



36" Diameter Pipe Outfall Covered in Brush Pile to the North of Development Area



Existing Building with Adjacent Trees



Existing Building and Tree to the East of the Development Area



Rear Portion of Property with Buildings, Open Space and Trees



Culvert under Patriot's Path Downstream of Property



Outfall and Stream off of Dean Road



Interconnection Pipe Downstream of Dean Road Outfall

ATTACHMENT B
USGS STREAMSTATS REPORT

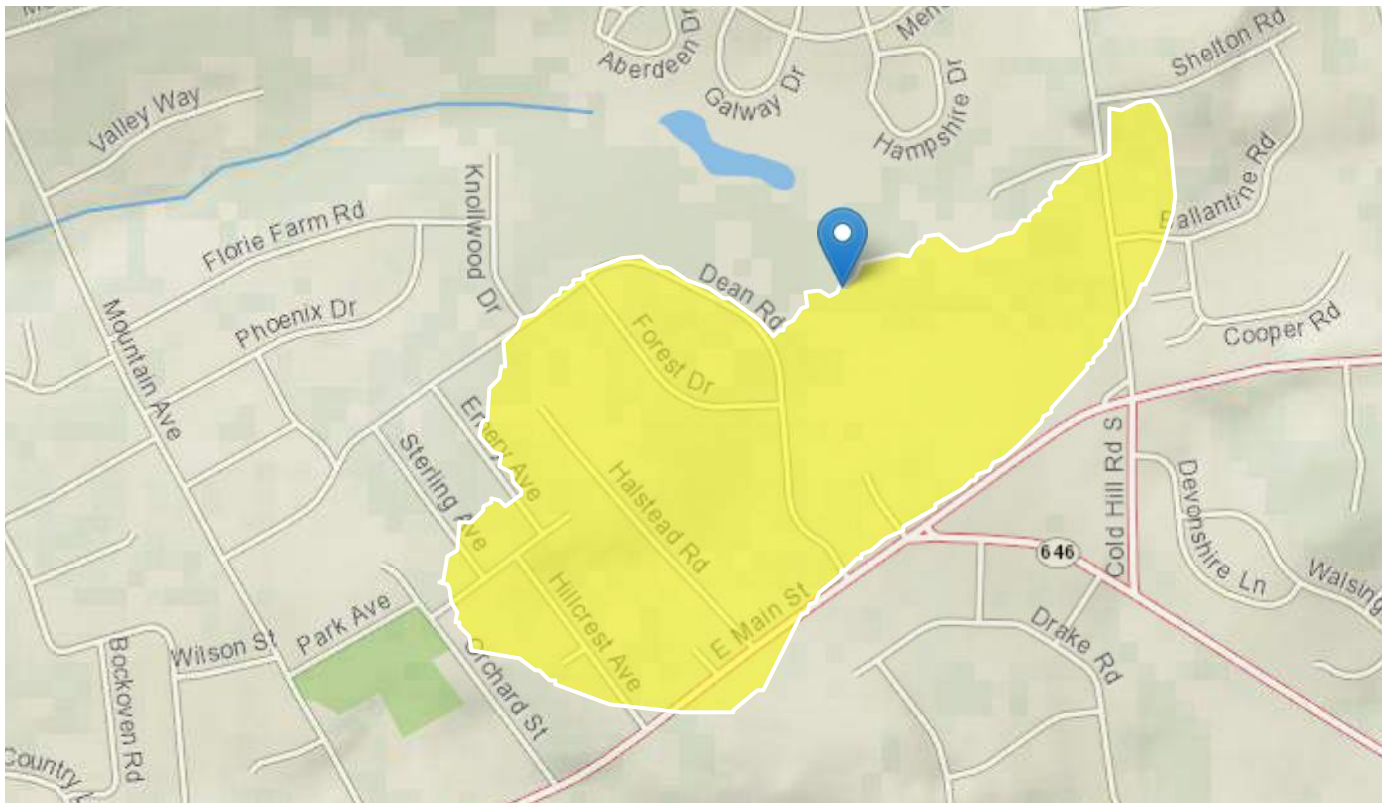
StreamStats Report

Region ID: NJ

Workspace ID: NJ20230202014832148000

Clicked Point (Latitude, Longitude): 40.78509, -74.59130

Time: 2023-02-01 20:48:52 -0500



[+ Collapse All](#)

➤ Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
CSL10_85	Change in elevation divided by length between points 10 and 85 percent of distance along main channel to basin divide - main channel method not known	115	feet per mi
DRNAREA	Area that drains to a point on a stream	0.27	square miles

Parameter Code	Parameter Description	Value	Unit
POPDENS	Basin Population Density	755	persons per square mile
STORAGE	Percentage of area of storage (lakes ponds reservoirs wetlands)	12.4	percent

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Application Version: 4.12.0

StreamStats Services Version: 1.2.22

NSS Services Version: 2.2.1