

Clean Waters Consulting, LLC  
20 Iron Horse Drive  
Ringo, NJ 08551  
609-306-5428  
SJSouza.CWC@gmail.com

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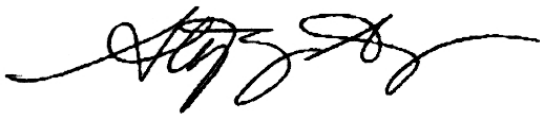
Deal Lake Commission  
Attn: Mr. Don Brockel, Chairman  
Interlaken Town Hall  
100 Grasmere Ave  
Interlaken, NJ 07712

**RE : Second Review Block 701 Lot 1  
M&M at Neptune, LLC  
Sent by Email to DLC**

Dear Chairman Brockel and DLC Commissioners:

The report that follows is my second review of the proposed M&M at Neptune, LLC development of Block 701, Lot 1, the former location of the Coca Cola bottling plant. This review is based on the plans, reports and associated supporting materials obtained via the Neptune Township Planning Board's website (<https://neptunetownship.org/agendas-minutes/planning-board>). My review of the revised and updated materials focuses on the water quality management of the site's stormwater runoff and the project's consistency with the Deal Lake Watershed Protection Plan as well as NJDEP Freshwater Wetland and Flood Hazard rules pertaining to Hollow Brook and its associated wetlands and floodplain features. Should you have any questions please feel free to contact me.

Sincerely,



Stephen J. Souza, Ph.D.  
Owner  
Clean Waters Consulting, LLC

Second Review  
M&M at Neptune, LLC  
Block 701 Lot 1  
Neptune Township, NJ

Prepared by:  
Stephen J. Souza, Ph.D.  
Clean Waters Consulting, LLC

Prepared for:  
The Deal Lake Commission

1. **Introduction** – This environmental review of the proposed M&M of Neptune, LLC project (Block 702 Lot 1) is a follow up to the report prepared on behalf of the Deal Lake Commission dated 26 April 2021. This report reflects changes made to the project by the applicant since June and is based on my review of the updated plans, specifications, reports and other supporting materials available to the public via the Neptune Township Planning Board website. The Deal Lake Commission (DLC) reserves the right to submit additional comments on this project at a later date as based on our further review of the materials noted in this report as well as new information made available to the public in the form of revised reports, plans and/or testimony.

The goal of the Deal Lake Commission's review of this project is to minimize the project's potential acute or chronic impacts to Deal Lake and Hollow Brook. Items of concern to the DLC are highlighted throughout this report in bold font. The DLC will gladly meet in a cooperative manner with the Planning Board, the Planning Board's professionals, the applicant and the applicant's professionals to discuss our items of concern.

2. **Materials Reviewed** – The updated materials for this application that are the subject of this report consist of the following:
  - Preliminary and Final Major Site Plans for M&M Neptune, LLC, Proposed Commercial Development Block 701, Lot 1, Township of Neptune, Monmouth County, NJ. Prepared by Stonefield Engineering and Design. Consisting of 21 sheets (C1 – C-28), **Revision Date 3 June 2021.**
  - Stormwater Management Report, Proposed Commercial Development, Block 701, Lot 1, Township Of Neptune, Monmouth County, New Jersey. Prepared For: M & M Neptune, LLC. Prepared By: Stonefield Engineering & Design, Report Revision Date, **Revision Date 3 June 2021.**
  - Site Changes Exhibit-05-SITE. Prepared For: M & M Neptune, LLC. Prepared By: Stonefield Engineering & Design, **Date 18 August 2021.**
  - Flood Zone Memo. Proposed Commercial Development Block 701, Lot 1, Township of Neptune, Monmouth County, NJ. Prepared by Stonefield Engineering and Design, Consisting of 4 pages, Dated 17 December 2020.
  - NJDEP Filed Deed Restriction. 18 Page Letter Report, dated 18 September 2020, Submitted to Ms. Suzanne Biggins NJDEP Division of Land Use Regulation (File No.: 134-11-0004.1/Activity Number: FWW190001).

- 200-foot Natural Features Exhibit. Block 701, Lot 1, Township Of Neptune, Monmouth County, New Jersey. Prepared For: M & M Neptune, LLC. Prepared By: Stonefield Engineering & Design, 28 December 2020.

Additionally, information contained in this report was obtained from the following:

- Deal Lake Watershed Protection Plan
- NJAC 7:8 – New Jersey Stormwater Management Rules
- NJAC 7:13 – New Jersey Flood Protection Rules
- NJAC 7:9B – New Jersey Water Quality Standards
- New Jersey Stormwater Best Management Practices Manual
- NJDEP Bureau of GIS, NJ-GeoWeb (<https://www.nj.gov/dep/gis/geoweb splash.htm>)
- NRCS Web Soil Survey (<https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>)
- Neptune Township Land Development Ordinances
- Neptune Township Stormwater Ordinance
- Neptune Township Stormwater Pollution Prevention Plan

3. **Project Overview** – The site of the proposed M&M development is Block 701, Lot 1 (704 NJ State Highway 35), the former Coca Cola bottling facility. The site encompasses a total of 13.45 acres consisting of both previously developed and disturbed land, as well as forested lands, a pond, wetlands and wetland transitional areas, riparian lands, and the Hollow Brook stream corridor. Most of the proposed development activity occurs on the western half of the property, the majority of which was previously disturbed. As noted in the DLC's initial review of this project, the redevelopment of the site will result in the construction of a 20,244 ft<sup>2</sup> super market, 8,000 ft<sup>2</sup> retail store, 3,316 ft<sup>2</sup> fast food restaurant, 4,500 ft<sup>2</sup> convenience store, a maximum of 234 parking spaces, an internal roadway system, ingress/egress driveways, and a stormwater management system.

Block 701, Lot 1 lies within the boundaries of the Hollow Brook sub-watershed of Deal Lake, which is the third largest sub-watershed of Deal Lake. As per the data collected by the DLC, NJDEP, Monmouth County and Monmouth University's CLONET program, Hollow Brook has an extensive, documented history of water quality impairments. This includes storm-driven elevated concentrations of total suspended solids and base-flow elevated concentrations of pathogens, phosphorus and nitrogen. Stormwater runoff also mobilizes and transports large quantities of floatables (plastic, urban debris, etc.) that accumulate in the stream and within the Hollow Brook section of Deal Lake (east of the Wickapeko Avenue). Overall, due largely to inadequate and improper stormwater management, Hollow Brook often fails to meet State water quality standards, especially with respect to in-stream total phosphorus concentrations, the primary driving factor responsible for the lake's harmful algae blooms (HABs). As such, the NJDEP approved Deal Lake Watershed Protection Plan emphasizes the need for improved stormwater management through the use of stormwater management measures capable of decreasing sediment, floatables, pathogen, phosphorus and nitrogen loading to Hollow Brook and Deal Lake.

4. **Updated Stormwater Management**– As previously noted, the project is located within the Hollow Brook sub-watershed of Deal Lake, the third largest of the lake's sub-watersheds and a watershed with a documented history of water quality impairments and environmental impacts. Hollow Brook itself, especially close to the project site and at its point of entry into Deal Lake is characterized by large,

accreted deposits of soil and sediment, incised and unstable stream banks, and high concentrations of pathogens, floatables, phosphorus and nitrogen.

Although Hollow Brook is impaired, the State's Water Quality Standards make it clear that any development cannot create conditions that worsen Hollow Brook's water quality, flow regime, or ability to support aquatic life. Given the size and proximity of this project to Hollow Brook and Deal Lake, the DLC once again requests the Neptune Township Planning Board require the approved project to fully comply with all State and Township environmental protection requirements, including those contained in the Deal Lake Watershed Protection Plan (WPP).

The DLC is pleased to see that the applicant has significantly updated the proposed stormwater management system, especially with respect to use of many of the green infrastructure techniques referenced in the Deal Lake WPP and the recently revised stormwater rules (NJAC 7:8). The proposed changes to the site's stormwater management system represents a major improvement relative to that originally proposed and is more in keeping with the guidance contained in the Deal Lake WPP.

- 4.1 The updated Stormwater Management Plan (Sheet C-7, C-15, C-18, C-21 and C-22) and the supporting Stormwater Management Report confirms the use of a combination of various stormwater best management practices to control and treat the project's stormwater runoff. These include:

- Two Rain gardens
- Porous Pavement Parking Stalls
- Subsurface Manufactured Treatment Devices (MTDs)
- Contech Brand Filtering Stormwater Treatment Systems, and
- Rooftop Runoff Drywells

Consistent with the requirements of NJDEP, each of these integrated best management practices manages no more than 2.5 acres.

- 4.2 Sheet C-7 shows the final discharge of the site's runoff into Hollow Brook is by means of a 30" RCP. The discharge pipe will be equipped with a new head wall/ flared end section and expanded scour hole. **The majority of the stormwater discharge pipe along with the headwall and scour hole occur with NJDEP delineated Freshwater Wetlands and Flood Hazard Area. Clarification is requested by the DLC of the status of the County and NJDEP permits associated with the installation of the new pipe, headwall and scour hole.**
- 4.3 **With respect to the disturbance associated with the new pipe, headwall and scour hole, the DLC requests additional soil erosion and sediment control measures be implemented by the applicant reflective of the sensitivity of the wetlands and stream corridor to disturbance. This should include the use of super silt fence (silt fencing with wire support), rapid revegetation of all disturbed area, and rapid vegetative stabilization of the stream bed and bank using coir logs and rip-rap.**
- 4.4 **The additional discharge from this pipe must be quantitatively demonstrated to neither erode nor destabilize the bed and banks of Hollow Brook.**
- 4.5 **Due to the proposed use of subsurface basins and porous pavement, additional care will need to be taken during the construction phase to prevent sediment related impacts. Sheet C-10 (Soil Erosion and Sediment Control Plan) does show all inlets being protected with inlet protection filters (a detail of which appears on Sheet C-11). It is unclear however how frequently the filters will be inspected, cleared of material and/or replaced. The DLC has had significant problems in the past at other construction sites with such filters being damaged, removed or inadequately maintained.**

- 4.6 As per Sheet C-10, it appears that the Rain Gardens located at the north and south ends of the property will be used as construction phase sediment containment basins. While the DLC supports the use of construction phase sedimentation basins, how will the Rain Gardens be renovated after construction? The DLC is concerned that trapped sediment will not be removed prior to converting the basins into rain gardens or the bottom of the rain gardens will become compacted during the construction phase. In either case this would compromise the rain gardens' long-term functionality. This is a legitimate concern given that the applicant proposes to use the Rain Gardens in part to meet the project's post-construction recharge requirements.
- 4.7 Based on Sheet C-7, a portion of the runoff from the southern driveway that provides egress and ingress to Route 35 remains unmanaged. This runoff should be routed into a small, manufactured treatment device before being discharged off site.
- 4.8 A detail could not be found for the 6" perforated HDPE underdrain noted on Sheet C-7.
- 4.9 The seed mix proposed for the Rain Gardens as detailed on Sheet C-12 consists of an plants with the correct hydrologic properties suited for rain gardens. The primary plants are drought tolerant yet do well when subjected to periods of inundation. Additionally, the seed mix is dominated by low-maintenance, high coverage, native plant species.
- 4.10 Soil testing should be conducted within the boundaries of both Rain Gardens to ensure adequate separation from groundwater (> 2') and adequate dewatering time (72 hours following a storm event). If either of these NJDEP design requirements cannot be satisfied it may be necessary to underdrain the Rain Gardens.
- 4.11 The engineer will need to prepare a detailed Operation and Maintenance (O&M) Manual for the various MTDs, porous pavement and green infrastructure stormwater management practices proposed for the site. The O&M Manual should require quarterly inspection and maintenance of each stormwater management practice. It should also include reporting forms and instructions on the submittal of the forms and an annual report to Neptune Township. The O&M Manual, reporting forms and reporting schedule should comply in full with the NJDEP's MS4 requirements.

## 5. Environmental

- 5.1 It does not appear that an updated EIS has been submitted for the project. The DLC reserves our right to review and comment on the updated EIS at a later date.
- 5.2 The DLC has not had an opportunity to review or comment on the recently submitted Environmental Phase I Study of the project site. We reserve our right to do so at a later date.
- 5.3 Flood Hazard Area (FHA) – As noted in our initial review report, a portion of the southern driveway that provides ingress and egress to Rte. 35 is within the delineated Flood Hazard Area. The applicant must provide an NJDEP permit documenting that this transgression has been approved by the NJDEP and identify any NJDEP required mitigation for the proposed disturbance within the FHA.
- 5.4 Wetland Transition Area (Buffer) – As per Sheet C-7, some parking provided along the edge of project's eastern loop road extends into a wetland transition area (buffer). The applicant must provide details of the NJDEP permit documenting regulatory approval of this transgression into the transition area as well as details of how this transgression will be mitigated/compensated.
- 5.5 Wetland Permits – As noted in Section 4, the site's proposed stormwater discharge pipe runs through wetlands and the wetland transition area. The pipe's new headwall and expanded scour hole results in the disturbance of Hollow Brook. Have the required permits for these disturbances been obtained from the NJDEP?
- 5.6 Referring to Sheet C-10, an area remains highlighted on the plan as a 78,813.7 ft<sup>2</sup> Soil Restoration Area. The EIS made no mention of a soil restoration area. The applicant's engineer needs to explain the nature and purpose of the soil restoration area.

- 5.7 Referring to the Landscape Plan (Sheet C-12), in keeping with the recommendation of the DLC Gingko will not be planted.
- 5.8 **Referring to Sheet C-10, the DLC requests a copy of the post-development Soil De-Compaction Test results.**

This concludes the DLC's second review of the proposed development of Block 701, Lot 1. As noted above, the DLC is willing to meet with the applicant in a constructive cooperative manner to discuss our concerns and how modifications could be made to the project to lessen impacts to Hollow Brook and Deal Lake. The DLC also reserves our right to comment further on any updates or revisions to the EIS and/or to review and comment on other engineering reports, plans and specifications that affect the ecology, water quality and recreational use of Hollow Brook and Deal Lake.