Notice of Intent
Milton Woods
175 Governor Stoughton Lane
Milton, Massachusetts

Submitted: June 10, 2016

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Project No. 14-4379
NARRATIVE
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STORMWATER MANAGEMENT REPORT (bound separately)
Stormwater Management Report for Milton Woods
Milton, Massachusetts
By Marchionda and Associates, LP
292 pages, dated 5/26/2016

PLANS
Definitive Subdivision Plan, Milton Woods, Milton, MA By Marchionda and Associates, LP
19 sheets, dated May 31, 2016
Temporary Wetland Impact and Restoration Plan By New England Environmental, Inc.
Sheet WR-1 dated May 11, 2016
Wetland Restoration Plan, Details, and Notes By New England Environmental, Inc.
Sheet WR-2 dated May 11, 2016
1.0 INTRODUCTION

New England Environmental, Inc. (NEE) and Marchionda & Associates, LP has prepared this Notice of Intent (NOI) on behalf of Pulte Homes of New England LLC, for a residential development of the property at the end of Governor Stoughton Lane in Milton, MA. The project shall be referred to as the Milton Woods development. Figure 1 illustrates the location of the site on the USGS Milton Quad. Figure 2 illustrates the location of the site on an aerial photograph.

This NOI is being submitted to the Massachusetts Department of Environmental Protection (DEP) using the eDEP internet facility. Pursuant to the Massachusetts Wetlands Protection Act (M.G.L. c. 131 § 40) and its regulations (310 CMR 10.00), and the Town of Milton Wetlands Protection Bylaw. NEE has notified all abutters within 100 feet of the property. A list of the abutters, obtained from the Milton Assessors Office, is presented in Appendix B, along with copies of the notification letter and an Affidavit of Service.

The total fee for this filing under the Massachusetts Wetlands Protection Act (WPA) is $3,000.00, for six houses located within the 100-foot buffer zone to wetlands and the associated grading, site work, and stormwater infrastructure associated with the new subdivision. The Town of Milton's portion is $1,512.50. The Commonwealth's share of $1,487.50 was mailed to the DEP lockbox in Boston. The DEP Wetlands Fee Transmittal Form follows the eDEP NOI form. A separate check for $4000.00 covering the local bylaw fee is attached to this filing ($2000 plus $100 for each acre over 10).

2.0 SITE DESCRIPTION

The site is located on the Town Farm property between Governor Stoughton Lane and Unquity Road in Milton, Map K Parcel 6 Lot 2. The Project Site is approximately 30 acres. The Project Site is primarily forested uplands and wetlands. The adjacent properties to the north, east and south are residentially developed while the property adjacent on the west is forested with pine trees. The site lies between homes fronting on Governor Stoughton Lane to the northeast, Unquity Road to the southwest, the Quissett Brook Cordominium to the northwest and homes fronting on Countryside Lane to the southeast. The property to the west (Section M Lot 10) is owned by the Department of Conservation and Recreation, which is bound to the west by Unquity Road. See Figure 2 Orthophoto.

Soils on this location are formed in glacial till. On the western side of the site, soils are mapped as the well-drained Canton fine sandy loam, which is extremely bouldery. The west side includes a pocket of Whitman fine sandy loam, which is extremely stony. The eastern half of the site is also mapped as Canton fine sandy loam with 3 to 8 percent slopes. Overall the terrain is hilly, with the lowest elevation of the site near Unquity Road with an elevation of approximately 60' and the highest point on site nearing the southeast corner of the site with an elevation of approximately 140'.

3.0 WETLAND RESOURCES

NEE performed a wetland delineation and assessment on and near the property in 2014 and identified the following protected wetland resources, subject to protection under the Massachusetts Wetlands Protection Act and the Milton Wetlands Protection Bylaw. The identity
and location of Massachusetts Wetland Protection Act resource areas on the property were confirmed in an Abbreviated Notice of Resource Area Delineation issued by the Milton Conservation Commission and an Order of Resource Area Determination (ORAD) was issued on July 23, 2014. A copy of the ORAD is included in Appendix C, confirming the following wetland types:

- Isolated Vegetated Wetlands
- Bank
- Bordering Vegetated Wetlands
- Land Under Water
- Riverfront Area
- Vernal Pools

The FEMA Flood Insurance Rate Map for the area shows no land subject to the 100-year flood on the property, so there is no Bordering Land Subject to Flooding (see Figure 3 Flood Zones). There is no Riverfront Area on the subject property; however, there is a small amount of 200-foot riverfront area to the west of the subject parcel. See attached ANRAD plan.

### 3.1 Isolated Vegetated Wetlands

Isolated Vegetated Wetlands (IVW) are subject to regulation by the U.S. Army Corps of Engineers and local bylaw, but not by the Massachusetts Wetlands Protection Act. IVW on this site was delineated using the Army Corps standards. The following wetland delineation flags were placed to identify IVW within the project area:

- C1-C14,
- D1-D23.

No area of Isolated Wetland is proposed to be altered with this NOI.

### 3.2 Bank

Bank is the resource area that confines waterways and water bodies and extends from Mean Annual Low Water (MALW) to Mean Annual High Water (MAHW). Bank is found along the edge of an intermittent stream channel leaving the AB wetlands. Except for the following flags, Bank was not delineated, as it lies entirely within bordering vegetated wetlands throughout the property. Flags numbered A-4A-A-9A on the south side and BB-1-BB-7 on the north side mark the edge of the intermittent stream channel.

This section of Bank is forested with trees such as red maple and white pine (*Pinus strobus*). The stream channel is comprised of large boulders and flows down a steep slope from the AB wetlands towards Unquity Road, where it forms a ponded area before flowing under Unquity Road in a culvert.

Bank is also found along Pine Tree Brook, which is located to the west of Unquity Road on the opposite side of the street as the subject property.

Bank has a 100-foot buffer zone. No Bank is proposed to be altered with this NOI.
3.3 Land Under Water
Land Under Water is the resource area below Mean Annual Low Water (MALW). It was represented by a single line on the ANRAD site plans and it was not separately delineated in the field. Land Under Water lies entirely within protected resource areas, and does not have a buffer zone. No LUW is proposed to be altered with this NOI.

3.4 Bordering Vegetated Wetlands
BVW are concentrated on the western side of the subject property. The following wetland delineation flags were placed to identify BVW within and near the subject parcel:

- A1-A26, along the southern edge of a BVW, on the southeast corner of the site;
- B1-B49, along the northern edge of a BVW, on the southeast corner of the site;
- E1-E96, located throughout the northwest portion of the site;
- F1-F8, located on the eastern side of the site and extending off the subject property to the east.

All BVW are wooded swamps dominated by red maple, with yellow birch and black gum common. The dominant shrubs are swamp-fetterbusch (*Eubotrys racemosa*, formerly *Leucothoe racemosa*) and sweet pepperbush (*Clethra alnifolia*) in the understory, with some thick patches of greenbrier (*Smilax rotundifolia*) and a scattering of highbush blueberry. Cinnamon fern, New York fern (*Thelypteris noveboracensis*), skunk cabbage (*Symlocarpus foetidus*) and sensitive fern (*Onoclea sensibilis*) were also common.

BVW have a 100-foot buffer zone and a 25-foot no-disturb zone under the Milton Wetlands Bylaw. A 978-square foot area of BVW is proposed to be temporarily altered for construction of a sewer and water line. Restoration in situ is proposed. Please see attached Restoration Plan.

4.0 MASSGIS DATABASE REVIEW

NEE reviewed the Massachusetts Geographic Information System (MassGIS) to determine if the project is located within or near areas designated as priority habitat of rare species or estimated habitats of rare wildlife, certified vernal pools or potential vernal pools. These designations are made by The Massachusetts Natural Heritage and Endangered Species Program (NHESP). The information provided by NHESP indicates that none of these habitat features is found within or immediately adjacent to the proposed project area. See Figure 4 for the NHESP overlay.

During a wildlife habitat evaluation conducted by NEE, locations on the property that likely provide vernal pool breeding habitat were evaluated. The first site is located within a hummock/hollow complex within Wetland E and the second is located within Wetland AB. The two concentrations of egg masses occurred in pools within hummock/hollow complexes. NEE estimated vernal pool boundaries based on conditions observed in and around the standing water containing the egg masses. These areas have been reviewed by the Conservation Commission as part of the ANRAD review. No storm water discharges are proposed in these areas. No work is proposed within 100 feet of these potential vernal pool areas.

NEE also reviewed the MassGIS system to determine if the site was located within Outstanding Resource Waters (ORW) or an Area of Critical Environmental Concern (ACEC). ORWs are watershed areas that have been classified as such under the Massachusetts Surface Water Quality Standards. These watersheds constitute an outstanding resource as determined by
their important socioeconomic, recreational, ecological and/or aesthetic values. These areas have been identified so that they may be protected and maintained. An ACEC is also an area designated in Massachusetts that receives special recognition because of the quality, uniqueness and significance of its natural and cultural resources. There is no ORW or ACEC located on or near the proposed project area.

5.0 PROPOSED WORK

The project at 175 Governor's Lane consists of constructing 23 single family homes in a Cluster Development Subdivision pursuant to the Town of Milton Zoning By-law Section VI.J. The plan proposes an approximately 1850-foot-long road ending in a cul-de-sac which will provide access to the lots along with water, sewer, gas and electrical utilities to provide service to the proposed dwellings. Roadways, buildings, and nearly all the associated infrastructure such as stormwater basins, will be located outside wetland resources and the 25-foot no disturb buffer zone. Limited grading along the proposed road will occur within the outer edge of the 25-foot no-disturb zone. Work such as the road installation, and 6 of the 23 houses will occur within the 100-foot buffer zone. Plans by Marchionda and Associates, L.P. showing the proposed development are included with this NOI.

5.1 Sedimentation and Erosion Control

A silt fence sedimentation barrier will be installed around the entire project to define the limit of work and prevent the movement of sediment toward wetlands. This barrier will be installed before any soil disturbance on the site, and will remain in place until all surfaces are revegetated and stable. A crushed-stone construction pad will be maintained at the entrance to the site from Unquity Road. Both the stone pad and the silt fence barrier will be inspected daily to ensure proper function, and repaired promptly when damaged or compromised. Temporary sedimentation basins and barriers will be utilized to intercept stormwater runoff during construction, and adjusted during the different phases of the project. Please see the construction notes and erosion control details on sheet 19 of the project plans. A Stormwater Pollution Prevention Plan (SWPPP) will be prepared in accordance with the regulations and guidelines set forth by the U.S. Environmental Protection Agency (EPA) in its Final National Pollutant Discharge Elimination System (NPDES), General Permit for Stormwater Discharges from Construction Activities. This permit regulates the discharge of stormwater from construction activity on sites where one or more acres of soil is disturbed. To comply with the regulations, operators of these sites request coverage under the General Permit for construction activities. In requesting permission, the operator must complete and file a Notice of Intent (NOI) with the EPA. The SWPPP must be followed during construction.

The Conservation Commission will be provided with electronic copies of the weekly SWPPP inspection reports. Inspection reports will be prepared following rain events of 0.25" or greater. Copies of the entire SWPPP document plans will be maintained on site.

5.2 Stormwater management

A system to manage stormwater runoff from the fully developed site has been designed to comply with the Massachusetts Stormwater Standards. The system
is designed to remove over 80% of total suspended solids in the stormwater, and
to reduce peak flows and runoff volume from the 2-, 10-, and 100-year storms.
A Stormwater Management Report by Marchionda & Associates, L.P. is included
with this NOI, bound separately.

Stormwater Management Standard #2 requires that Stormwater Management
Systems be designed so that post development peak discharge rates do not
exceed pre-development peak discharge rates. Peak flow runoff rates were
studied for the proposed conditions for the 2, 10, and 100 year, 24-hour Type III
storm events. The rainfall data used in the calculations was taken from the MA
DEP Hydrology Handbook for Conservation Commissioners Appendix F-1 for
Essex County. The 24-hour rainfall depths according the handbook for the 2, 10
and 100-year storm events are 3.2", 4.7" and 6.7" respectively.

The resulting analysis determined that the peak runoff rates to the Design Study
Points in the post-development condition do not exceed the pre-development
peak runoff rates for design storms. See Table 2 in the Stormwater Report.

5.3 Maintenance
A long-term maintenance plan for the stormwater facilities following construction
is included in Appendix D. This includes normal maintenance of residential
landscapes within portions within the 100-foot Buffer Zone, and preservation of
natural vegetative cover within the 25-foot no-disturb zone.

5.4 Temporary Wetland Alteration and Restoration
The wetland alteration is necessary to connect the new sewer and water lines to
existing lines. The temporary alteration will occur in Wetland A/B in between
flags A-23 through A-25 and B-45 through B-48. The area to be temporarily
altered is 978 square feet (S.F.). Data collected at wetland Flag B-35 is included
in Appendix E. Restoration of this area for site utilities follows the performance
standards at 310 CMR 10.53(d) 1-4.

Wetland shrubs and New England Wetmix will be applied within the restoration
area and upland trees, shrubs, and New England Conservation/Wildlife Seed Mix
will be applied to the adjacent buffer zone. See attached Wetland Restoration
Plans.

6.0 PERFORMANCE STANDARDS

The project proposes a temporary impact to wetlands and a new stormwater system; therefore,
the project must comply with the Bordering Vegetated Wetland Performance Standards and the
Massachusetts Stormwater Standards. A restoration plan is provided that details the
construction and restoration plan for the 978 S.F. temporary impact. A summary of the wetland
compliance standards and stormwater compliance standards, and how this project complies
with both are provided herein.

6.1 Compliance with Bordering Vegetated Wetland Performance Standards
Alteration of up to 5,000 s.f. square feet of BVW may be permitted provided the area is
replicated and the replacement wetland conforms to the following conditions [310 CMR
10.55(4)(b)]:

1. “The surface of the replacement area...shall be equal to that of the area to be lost.”
The temporarily impacted wetland (estimated to be 978 s.f.) will be restored in place and shall be "equal" to the area temporarily impacted.

2. "The ground water and surface elevation of the replacement area shall be approximately equal to that of the lost area."

The ground water and surface elevations of the restored wetland will be the same as they were prior to the temporary impact.

3. "The overall...configuration and location of the replacement area with respect to the Bank shall be similar to the lost area."

There is no Bank loss associated with this project.

4. "The replacement area shall have an unrestricted hydraulic connection to the same water body or waterway associated with the lost area."

The restoration area will be located in the same location as the impacted area; therefore, have an unrestricted connection to the same forested wetland.

5. "The replacement area shall be located within the same general area of the water body or reach of the waterway as the lost area."

The temporarily impacted wetland will be restored in place.

6. "At least 75% of the surface of the replacement area shall be reestablished with indigenous wetland plant species within two growing seasons, and...any exposed soil in the replacement area shall be temporarily stabilized to prevent erosion..."

Restoring the existing wetland hydrology, use of the same wetland soils, planting new shrubs and seeding with wetland seed mix, should ensure at least 75% cover after two years. The restoration area will be checked after one year, and if progress toward 75% cover is not occurring, further seeding will be done. Light mulching of the exposed soil in the restored areas with weed-free straw will control erosion.

7. "The replacement area shall be provided in a manner which is consistent with all other General Performance Standards for each (other) resource area..."

The wetland that will be temporarily impacted shall be restored in a manner consistent with other resources on the site.

6.2 Compliance with the Stormwater Management Standards
See attached Stormwater Report dated May 26, 2016, stamped by Paul A. Marchionda, PE.

Standard 1: No new stormwater conveyances (e.g. outfalls) may discharge untreated stormwater directly to or cause erosion in wetlands or waters of the Commonwealth.

The proposed stormwater management system has been designed to provide treatment of runoff prior to discharge.
Standard 2: Stormwater management systems shall be designed so that the post-development peak discharge rates do not exceed pre-development peak discharge rates. This Standard may be waived for discharges to land subject to coastal storm flowage as defined in 310 CMR 10.04.

Peak discharge rates will not exceed pre-development peak discharge rates. The resulting analysis determined that the peak runoff rates to the Design Study Points in the post-development condition do not exceed the pre-development peak runoff rates for the design storms. See Table 2 on page 6 in the attached stormwater report.

Standard 3: Loss of annual recharge to groundwater shall be eliminated or minimized through the use of environmentally sensitive site design, low impact development techniques, stormwater best management practices, and good operation and maintenance.

The infiltration volume of the precipitation post-development into the ground is the same as pre-development conditions.

Standard 4: Stormwater management systems shall be designed to remove 80% of the average annual post-construction load of Total Suspended Solids (TSS).

Implementation of erosion controls and good housekeeping techniques will be used during and after construction. The stormwater management system will include Best Management Practices (BMP's) treatment trains that will provide the removal of at least 80% of the Total Suspended Solids generated from the proposed development. These BMP's include Deep Sump Hooded Catch Basins, Infiltration basins and Propriety Water Quality Structures. See Appendix 4 in the stormwater report for the removal rate worksheets for each of the proposed treatment trains.

Standard 5: For land uses with higher potential pollutant loads, source control and pollution prevention shall be implemented in accordance with the Massachusetts Stormwater Handbook to eliminate or reduce the discharge of stormwater runoff from such land uses to the maximum extent practicable.

Not applicable to this project. The project does not propose any uses that could potentially generate higher pollutant loads.

Standard 6: Stormwater discharges within the Zone II or Interim Wellhead Protection Area of a public water supply and stormwater discharges near or to any other critical area require the use of the specific source control and pollution prevention measures and the specific structural stormwater best management practices determined by the Department to be suitable for managing discharges to such areas, as provided in the Massachusetts Stormwater Handbook.

Not applicable to this project. According to the MA GIS Mapping Application, the project does not lie within either a Zone II or an Interim Wellhead Protection Area.

Standard 7: A redevelopment project is required to meet the following Stormwater Management Standards only to the maximum extent practicable: Standard 2, Standard 3, and the pretreatment and structural stormwater best management practice requirements of Standards 4, 5, and 6. Existing stormwater discharges shall comply with Standard 1 only to the maximum extent practicable.

The project is not considered a redevelopment project under the criteria set forth in the
Stormwater Handbook.

**Standard 8:** A plan to control construction-related impacts, including erosion, sedimentation, and other pollutant sources during construction and land disturbance activities (construction period erosion, sedimentation, and pollution prevention plan) shall be developed and implemented.

The project will include appropriate erosion and sediment controls to insure that exposed soils will remain stable and sediment will not be released from the proposed limit of work. Erosion and sedimentation controls will be implemented before and after construction takes place and will remain in place until the site is stabilized.

**Standard 9:** A Long-Term Operation and Maintenance (O&M) Plan shall be developed and implemented to ensure that stormwater management systems function as designed. See Appendix D for the Long-Term Operation and Maintenance Plan.

**Standard 10:** All illicit discharges to the stormwater management system are prohibited. Illicit discharges will not occur or prior to the discharge of stormwater runoff to post construction BMP’s, the project owner shall prepare an illicit discharge compliance statement in accordance with standard 10.

### 7.0 SUMMARY

This NOI requests the Milton Conservation Commission to issue an Order of Conditions for construction of a residential dwelling community located at 175 Governor Stoughton Lane and Unquity Road (Map K Parcel 6 Lot 2). The stormwater management system designed for this site by Marchionda & Associates, L.P. fully complies with the Massachusetts Stormwater Standards. A portion of the work, associated installation of a new water and sewer line proposes temporarily alteration of 978 square feet of BVW, which will be restored in place. Portions of the roadway, stormwater management system and six houses are to be located within the 100-foot buffer zone to Bordering and Isolated Wetlands. No permanent wetland alteration is proposed and the 25-foot No Disturb zone under the town bylaw shall be maintained.
8.0 REFERENCES


Massachusetts Division of Fisheries and Wildlife, Natural Heritage and Endangered Species Program. Massachusetts Natural Heritage Atlas, 2008 edition.


