



Massachusetts Department of Environmental Protection
 Bureau of Resource Protection - Wetlands
WPA Form 4A – Abbreviated Notice of
Resource Area Delineation
 Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

Deerfield
 City/Town

A. General Information

1. Project Location (**Note:** electronic filers will click on button for GIS locator):

Off Greenfield Road

a. Street Address

Deerfield

b. City/Town

01373

c. Zip Code

Latitude and Longitude:

159

f. Assessors Map/Plat Number

42.485410

d. Latitude

-71.613620

e. Longitude

14

g. Parcel /Lot Number

Important: When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



2. Applicant:

Kenneth

a. First Name

Bouquillon

b. Last Name

SunnyDayz Inc.

c. Organization

55 Locust Street

d. Mailing Address

Lynn

e. City/Town

MA

f. State

01904

g. Zip Code

860-656-4624

h. Phone Number

i. Fax Number

kenb@sunnydayzcannabis.com

j. Email Address

3. Property owner (if different from applicant):

SAME

a. First Name

b. Last Name

c. Organization

d. Mailing Address

e. City/Town

f. State

g. Zip Code

h. Phone Number

i. Fax Number

j. Email Address

Check if more than one owner (attach additional sheet with names and contact information)

Note: Before completing this form consult your local Conservation Commission regarding any municipal bylaw or ordinance.

4. Representative (if any):

Fredric

a. Contact Person First Name

King

b. Contact Person Last Name

DGT Associates, Inc.

c. Organization

1071 Worcester Road

d. Mailing Address

Framingham

e. City/Town

MA

f. State

01701

g. Zip Code

857-524-1434

h. Phone Number

508-879-1797

i. Fax Number

fking@dgtassociates.com

j. Email Address

Fees will be calculated for online users.

5. Total WPA Fee Paid (from attached ANRAD Wetland Fee Transmittal Form):

\$ 2,000

a. Total Fee Paid

\$ 987.50

b. State Fee Paid

\$ 1,012.50

c. City/Town Fee Paid



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B. Area(s) Delineated

1. Bordering Vegetated Wetland (BVW) 6,910
Linear Feet of Boundary Delineated

2. Check all methods used to delineate the Bordering Vegetated Wetland (BVW) boundary:

- a. MassDEP BVW Field Data Form (attached)
- b. Other Methods for Determining the BVW boundary (attach documentation):
 - 1. 50% or more wetland indicator plants
 - 2. Saturated/inundated conditions exist
 - 3. Groundwater indicators
 - 4. Direct observation
 - 5. Hydric soil indicators
 - 6. Credible evidence of conditions prior to disturbance

3. Indicate any other resource area boundaries that are delineated:

Riverfront
a. Resource Area

916
b. Linear Feet Delineated

Bank
c. Resource Area

1,094
d. Linear Feet Delineated

C. Additional Information

Applicants must include the following plans with this Abbreviated Notice of Resource Area Delineation. See instructions for details. **Online Users:** Attach the Document Transaction Number (provided on your receipt page) for any of the following information you submit to the Department.

- 1. ANRAD (Delineation Plans only)
- 2. USGS or other map of the area (along with a narrative description, if necessary) containing sufficient information for the Conservation Commission and the Department to locate the site. (Electronic filers may omit this item.)
- 3. Plans identifying the boundaries of the Bordering Vegetated Wetlands (BVW) (and/or other resource areas, if applicable).
- 4. List the titles and final revision dates for all plans and other materials submitted with this Abbreviated Notice of Resource Area Delineation.

D. Fees



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The fees for work proposed under each Abbreviated Notice of Resource Area Delineation must be calculated and submitted to the Conservation Commission and the Department (see Instructions and Wetland Fee Transmittal Form).

- 1. Fee Exempt: No filing fee shall be assessed for projects of any city, town, county, or district of the Commonwealth, federally recognized Indian tribe housing authority, municipal housing authority, or the Massachusetts Bay Transportation Authority.

Applicants must submit the following information (in addition to the attached Wetland Fee Transmittal Form) to confirm fee payment:

131

2. Municipal Check Number

132

4. State Check Number

Kenneth

6. Payor name on check: First Name

July 6, 2022

3. Check date

July 6, 2022

5. Check date

Bouquillon

7. Payor name on check: Last Name

E. Signatures

I certify under the penalties of perjury that the foregoing Abbreviated Notice of Resource Area Delineation and accompanying plans, documents, and supporting data are true and complete to the best of my knowledge. I



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understand that the Conservation Commission will place notification of this Notice in a local newspaper at the expense of the applicant in accordance with the wetlands regulations, 310 CMR 10.05(5)(a).

I further certify under penalties of perjury that all abutters were notified of this application, pursuant to the requirements of M.G.L. c. 131, § 40. Notice must be made in writing by hand delivery or certified mail (return receipt requested) to all abutters within 100 feet of the property line of the project location.

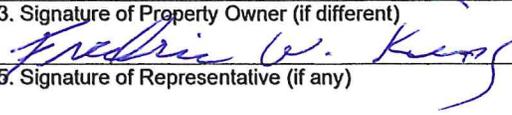
I hereby grant permission, to the Agent or member of the Conservation Commission and the Department of Environmental Protection, to enter and inspect the area subject to this Notice at reasonable hours to evaluate the wetland resource boundaries subject to this Notice, and to require the submittal of any data deemed necessary by the Conservation Commission or Department for that evaluation.

I acknowledge that failure to comply with these certification requirements is grounds for the Conservation Commission or the Department to take enforcement action.



 1. Signature of Applicant

 July 11 2022
 2. Date

 3. Signature of Property Owner (if different)


 5. Signature of Representative (if any)

 4. Date
 July 12, 2022

 6. Date

For Conservation Commission:

Two copies of the completed Abbreviated Notice of Resource Area Delineation (Form 4A), including supporting plans and documents; two copies of the ANRAD Wetland Fee Transmittal Form; and the city/town fee payment must be sent to the Conservation Commission by certified mail or hand delivery.

For MassDEP:

One copy of the completed Abbreviated Notice of Resource Area Delineation (Form 4A), including supporting plans and documents; one copy of the ANRAD Wetland Fee Transmittal Form; and a copy of the state fee payment must be sent to the MassDEP Regional Office (see Instructions) by certified mail or hand delivery. (E-filers may submit these electronically.)

The original and copies must be sent simultaneously. Failure by the applicant to send copies in a timely manner may result in dismissal of the Notice of Intent.



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ANRAD Wetland Fee Transmittal Form
 Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Important:
 When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



A. Applicant Information

1. Location of Project:

Off Greenfield Road	Deerfield
a. Street Address	b. City/Town
\$ 987.50	132
c. Fee amount	d. Check number

2. Applicant:

Kenneth	Bouquillon	SunnyDayz, Inc.
a. First Name	b. Last Name	c. Company
55 Locust Street		
d. Mailing Address		
Lynn	MA	01904
e. City/Town	f. State	g. Zip Code
860-656-4624		
h. Phone Number		

3. Property Owner (if different):

_____	_____	_____
a. First Name	b. Last Name	c. Company

d. Mailing Address		
_____	_____	_____
e. City/Town	f. State	g. Zip Code

h. Phone Number		

B. Fees

The fee is calculated as follows for each Resource Area Delineation included in the ANRAD (check applicable project type). The maximum fee for each ANRAD, regardless of the number of Resource Area Delineations, is \$200 activities associated with a single-family house and \$2,000 for any other activity.

Bordering Vegetated Wetland Delineation Fee:

1. <input type="checkbox"/>	single family house project	_____	x \$2.00 =	_____	b. Fee for BVW
2. <input checked="" type="checkbox"/>	all other projects	6,910	13,820	13,820	b. Fee for BVW
		a. feet of BVW	x \$2.00 =		

Other Resource Area (e.g., bank, riverfront area, etc.):

3. <input type="checkbox"/>	single family house project	_____	x \$2.00 =	_____	b. Fee
4. <input checked="" type="checkbox"/>	all other projects	2,010	4,020	4,020	b. Fee
		a. linear feet	x \$2.00 =		

Total Fee for all Resource Areas: \$ 2,000 Max fee
Fee

State share of filing fee: \$ 987.50
5. 1/2 of total fee **less** \$12.50

City/Town share of filing fee: \$ 1,012.50
6. 1/2 of total fee **plus** \$12.50

Online users: check box if fee exempt.



Massachusetts Department of Environmental Protection

Bureau of Resource Protection - Wetlands

ANRAD Wetland Fee Transmittal Form

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

C. Submittal Requirements

- a.) Send a copy of this form, with a check or money order for the state share of the fee, payable to the Commonwealth of Massachusetts, to:

Department of Environmental Protection
Box 4062
Boston, MA 02211

- b.) **To the Conservation Commission:** Send the Abbreviated Notice of Resource Area Delineation; a **copy** of this form; and the city/town fee payment.
- c.) **To DEP Regional Office:** Send one copy of the Abbreviated Notice of Resource Area Delineation (and any additional documentation required as part of a Simplified Review Buffer Zone Project); a **copy** of this form; and a **copy** of the state fee payment. (E-filers of Notices of Intent may submit these electronically.)

SUNNYDAYZE

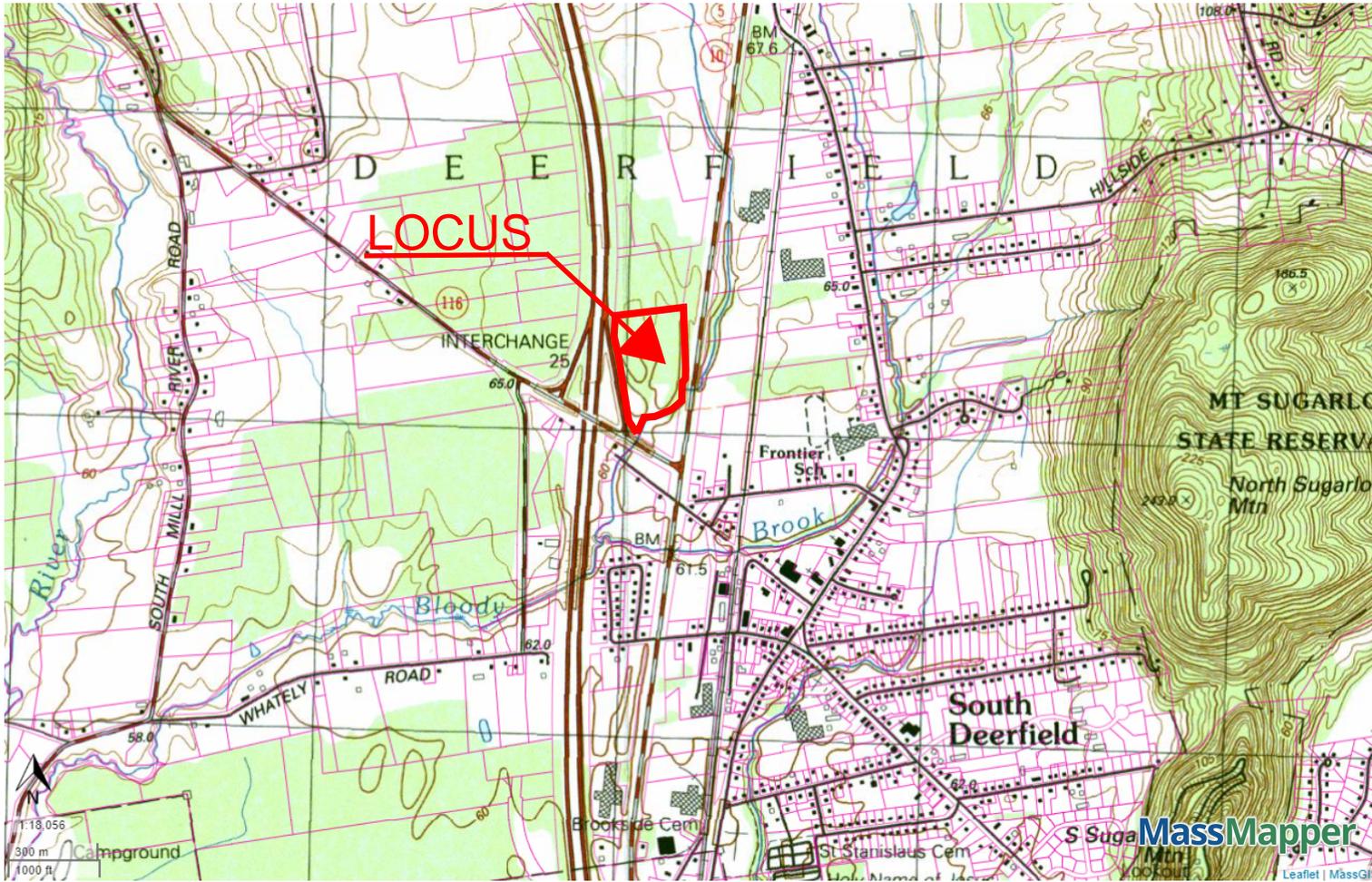
**ABBREVIATED NOTICE OF
RESOURCE AREA DELINEATION**

LIST OF INCLUDED DOCUMENTS

- **WPA FORM 4A and Fee Transmittal Form**
- **Filing Fee Check (\$1,012.50)**
- **USGS LOCUS MAP**
- **Copies of Filing Fee Checks**
- **Wetland Resource Area Delineation Report
dated May 16, 2022 by DGT Associates.**
- **PLAN: “Topographic Plan of Land in Deerfield
Massachusetts, Franklin County” prepared
By DGT Associates, Dated June 13, 2022.**

SUNNYDAYZ - DEERFIELD

LOCUS MAP



Property Tax Parcels
USGS Topographic Maps



KENNETH A BOUQUILLON
2 DEER CRK
OXFORD CT 06478

132
19-2/1250 WA
99504

July 6 2022
Date

PAY to the order of
COMMONWEALTH OF MASSACHUSETTS
NINE HUNDRED EIGHTY SEVEN AND $\frac{50}{100}$

\$ 987.50
Dollars



BANK OF AMERICA

ACH R/T 125000024

For ANRAD APPLICATION - SUNNYDAYZ

⑆ 25000024⑆ 138129591469⑆ 0132

KENNETH A BOUQUILLON
2 DEER CRK
OXFORD CT 06478

131
19-2/1250 WA
99504

July 6 2022
Date

PAY to the order of
TOWN OF DEERFIELD
ONE THOUSAND TWELVE AND $\frac{50}{100}$

\$ 1012.50
Dollars



BANK OF AMERICA

ACH R/T 125000024

For ANRAD APPLICATION - SUNNYDAYZ

⑆ 25000024⑆ 138129591469⑆ 0131

W-6250

May 16, 2022

Adaptive Grow Technologies
ATTN: Kenneth Bouquillon
38 Grove Street
Ridgefield, CT 06877

RE: Greenfield Road (Rt. 5) Site, Deerfield, MA.
Wetland Resource Area Delineation Report

Dear Mr. Bouquillon,

This report contains the information on the wetlands resource areas at the subject site as regulated under the Mass. Wetlands Protection Act. These include: Bordering Vegetated Wetlands (BVW), Streams (Banks), and Riverfront Area. For the Riverfront Area, the delineation includes the Mean Annual High Water line of the perennial stream at the south end of the site for determining the inner boundary of the Riverfront Area. This report also includes information on Bordering Land Subject To Flooding (BLSF) for this site, as well as information on mapped endangered species habitat from the Mass. Natural Heritage and Endangered Species Program (NHESP).

DGT Associates performed a field delineation of the boundaries of the Wetland Resource Areas (WRAs) at the subject property on April 27 and 28, 2022. The delineations were performed by this writer, Fredric King, Senior Wetland Specialist of DGT Associates to define WRA boundaries under the Mass. Wetlands Protection Act and the associated regulations at 310 CMR 10.00, for use in planning for the site. Following the field delineation, the marker flags were located by the DGT Surveyors and will be shown on the Existing Conditions Plan.

GENERAL SITE DESCRIPTION:

The site is a 28.6 acre tract of undeveloped wooded land located on the west side of Greenfield Road (Route 5), just north of the intersection Conway Road. The property is bounded on the East by Greenfield Road, on the south by a perennial stream, on the west by US Route 91, and on the north by land owned by the Franklin Land Trust.

The site is identified as parcels 14 and 7 on Sheet 159 of the Deerfield Assessor's Maps. Parcel 14 is the southerly portion that contains approximately 17.2 acres, and Parcel 7 on the north is approximately 11.4 acres. The roadway layout for Route 5 is wide at the area of the subject property as it also encompasses the location of a former railroad (trolley) bed. The tracks no longer exist but the rail bed is a prominent feature off the front of the site.

The site is within the watershed of Bloody Brook that is located approximately ¼ mile to the south of the property. The system of streams and BVWs at the site, divide the property into four areas of upland. The upland areas are relatively flat, and the streams and wetlands are several

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feet lower than the upland. The wetlands and streams are generally narrow and mainly contained within cuts with sloping sides so that the boundaries of the wetlands are very distinct in most areas, with the exception of a few locations where the grades are flatter and the boundaries are less distinct.

The upland areas are wooded, consisting of a second growth forest of Red Oak (*Quercus rubra*), American Beech (*Fagus grandifolia*), White Pine (*Pinus strobus*), Eastern Hemlock (*Tsuga canadensis*) and some Red Maple (*Acer rubrum*) and Black Birch (*Betula lenta*).

The BVWs are generally classified as wooded red maple swamp and some shrub swamp along the main perennial stream at the south end of the property. The understory vegetation varies depending on the wetness and proximity to the streams. Typical species encountered near the outer boundary include: Red Maple; White Pine on hummocks; Eastern Hemlock near the outer boundary; Sweet Pepperbush (*Clethra alnifolia*); Silky Dogwood (*Cornus amomum*); Highbush Blueberry (*Vaccinium corymbosum*); Cinnamon Fern (*Osmunda cinnamomea*); Sensitive Fern (*Onoclea sensibilis*); and Skunk Cabbage (*Symplocarpus foetidus*).

Note that the wetland resource areas at this site had been previously delineated by others and much of the delineation flagging marking the wetland boundaries were in place or had fallen to the ground near where they had been placed. It appears that the flagging was performed in the last couple of years and was done with pink flagging labeled "Wetland Delineation". Our new delineation by DGT is an independent evaluation, however, in most cases where the flagging remained intact, we were generally in agreement with the previous delineation and tied our flag at the same location using blue flagging for BVW and pink flagging for Bank and Mean Annual High Water (MAHW).

LIMITS OF THE DELINEATION: The extent of the delineation, as requested by the client is generally limited to the southerly parcel (Parcel 14), as the proposed project is presently proposed to be limited to that site. The wetlands do continue beyond our delineation, through the northerly parcel and into the abutting land to the north.

BORDERING VEGETATED WETLANDS (BVW)

The delineation of Bordering Vegetated Wetlands was performed in accordance with current Mass. Department of Environmental Protection methodology as contained in the DEP Handbook "Delineating Bordering Vegetated Wetlands Under the Massachusetts Wetlands Protection Act" dated March 1995. The delineation was performed by this writer, Fredric King, Senior Wetland Specialist.

The delineation was performed using vegetation, soils and other indicators of wetland hydrology. To set the line, continual visual estimations of vegetation species dominance and observation of wetland hydrology were made, along with frequent observations of soils using a hand soil auger.

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In most cases, due to the abrupt change in topography at the wetland boundary, the limit of the BVW was quite distinct. However, there were three locations where the grade was more gradual, and the boundary extended up onto the uplands following shallow swales. To aid in delineation at these three areas and to provide the required supporting documentation, observation transects with sample plots were performed. The data collected is included in the DEP Field Data Forms in Attachment 1.

The intermittent streams at the site vary in width and depth and meander through the relatively flat bottom of the narrow stream corridors. Since the BVW will determine the limits of the Buffer Zone, the Banks within the BVW were not delineated at this time. Banks were only delineated at locations where there was no adjacent BVW.

It appears that three stream crossings will be necessary for the concept project. At such time as the crossing locations are selected, additional detail will likely be necessary to accurately delineate the stream banks within the BVW for the design of the crossings and determination of areas for wetland replication to meet the regulatory performance standards.

The following is a description of the various portions of the BVW delineation.

A SERIES

Flags A-1 to A-8 are at the outfall of the large CMP culvert of the perennial stream where it enters the site at the southeast corner. It is a narrow fringe of BVW abutting the low-flow channel of the stream. It was observed that the stream was flowing strong at the low flow level during the delineation work.

B, C D and E SERIES (Intermittent Stream Branch 4)

This wetland system is mainly on the Route 5 layout across the entire front of the site. This follows an intermittent stream that we have identified as Intermittent Stream System 4. At the time of this delineation, the stream was not flowing but did have several small, shallow areas of ponded water along it. The northern portion of this system drains through the stone bridge abutment for the former trolley line bridge, and then to a culvert under Route 5. That culvert flows to wetlands on the east side of the roadway. The southern portion of this system drains to the main perennial stream to the south. Prior to reaching the stream, the last 50 feet of the stream runs through steep banks with no BVW.

B SERIES: B-1 to B-3: A small BVW extending from Bank 3 to Bank 5. (See information on Bank delineations later in this report.)

C SERIES: C-1 to C-24: The boundary of the BVW is a narrow fringe of wetlands along the west side of the intermittent stream.

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D-SERIES: D-1 to D-29. These flags delineate the easterly BVW boundary of this wetland system and generally follows the eastern embankment of the former trolley bed.

E SERIES: E-1 to E-5: This is a small upland island inside the limits of flags BVW C-7 and BVW D-16 just south of the old bridge abutments. The intermittent stream channel is in the narrow area on the west side of this upland island.

F SERIES: F-1 to F-14: This is the vegetated wetlands that borders on the main perennial stream at the south end of the site. This wetland is classified as a shrub swamp in this area. The stream was flowing strong during the field delineation. Due to the rich topsoil and open nature of the vegetation, there was some Sensitive Fern and facultative shrubs (Silky Dogwood) growing up into the upland area. Soils and indicators of hydrology were the determining factors for the boundary at this area.

SERIES: F-15 TO F-29 and J-31 to J-56 (Intermittent Stream Branch 1): These flags mark the boundary of the wetlands bordering on the intermittent stream that enters the site from US 91. For this report we will identify this as Intermittent Stream Branch 1. During the delineation, this stream had a small flow.

This BVW section includes a short finger of wetland extending into the upland to Flag F-22. Transect 1 with two sample plots was performed at this location.

Note that there is an upland area on the southwest side of Intermittent Stream Branch 1. This side of the wetland was not delineated as the proposed project is not anticipated to go into that portion of the site.

SERIES F-29 TO F-55, G-1 TO G-17, AND J-24 TO J-30 (Intermittent Stream Branch 2): These flags mark the boundary of the wetlands bordering on the intermittent stream that flows into Intermittent Stream Branch 1, flowing southwesterly through the site from the northeast corner of Parcel 14. During the delineation, the lower portion of the stream below the confluence with the Intermittent Stream Branch 3 did have a small amount of flow. The stream above that point was not flowing during the delineation and had a few locations with shallow standing water. For this report we will identify this as Intermittent Stream Branch 2.

At flag F-53 there was a small area of BVW that extended into the upland, and Transect 3 with two sample plots was performed at that location.

The wetland system continues to the north through Parcel 7 and into the abutting property to the north. Delineation flagging from the previous delineation remains in this area.

SERIES G-17 TO G-35 AND J-1 TO J-24 (Intermittent Stream Branch 3):

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These flags mark the boundary of the wetlands bordering on the Intermittent Stream Branch that drains into Intermittent Stream Branch 2. For this report we will identify this as Intermittent Stream Branch 3.

During the delineation work, this intermittent stream was not flowing but did have several areas of shallow standing water.

At flags J-12 and J-13 there was a small area of BVW that extended into the upland, and Transect 2 with two sample plots was performed at that location to determine the limit of the BVW.

SERIES H-1 TO H-16

This is a small ponding area and BVW that is located within the Route 5 road right of way at the base of the roadway embankment. It borders on the Intermittent Stream System 5 that drains to a culvert under Route 5. There is a small overflow channel from the H Series wetland to the Intermittent Stream system 5. At the time of the delineation, the ponded water was several feet deep and about one foot below the overflow level.

This ponded area appears to have some potential to be a vernal pool, however, no activity of vernal pool species was observed at this time.

STREAM STATUS (Intermittent vs Perennial).

Main Stream at the South Property Line:

The on-site stream at the south end of the property was running with a strong flow on both days of the delineation work. The flow was contained within the low flow channel. It is noted that the winter and spring of 2022 before the delineation was not in a drought condition.

The determination of whether the stream is perennial or intermittent is determined per the definitions in the Riverfront section of the Wetlands Protection Act Regulations (310 CMR 10.58). Per those Regulations the stream is classified as being presumed as Perennial and as a "River" for the following reasons:

1. The stream is shown on the latest USGS topographic map as a heavy blue line.
2. The total watershed area of the stream at this site is more than 1 square mile (Approximately 1.2 sq. mile).
3. The watershed area has a high percentage of glacial outwash geology.

Per the definition of Perennial Stream in the regulations, this stream is presumed to be a River.

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Note that, when there is doubt regarding the perennial status of a stream, there is a procedure that can be followed to overcome that presumption. However, it is out opinion that it is unlikely to be overcome in this case.

On-Site Intermittent Streams:

The other streams on the subject site, identified in this report as Intermittent Streams 1 to 5, are clearly not perennial. This delineation was performed in mid-spring and the streams were observed to only have a small trickle of flow at Intermittent Stream Branch 1 and the lower portion of Intermittent Stream Branch 2. In all other cases, the streams were dry or only had water in puddles within the stream.

Per the Regulations these streams are classified as being intermittent and not a “River” for the following reasons:

1. The streams are not shown at all on the latest USGS topographic map.
2. The total watershed area of the stream at this site is substantially less than 1 square mile.
3. The watershed area is also much less than the 0.5 square miles. A watershed area of 0.5 square miles is the minimum to be classified a River. So the streams are not Rivers and there is no Riverfront associated with these streams.

MEAN ANNUAL HIGH WATER OF THE MAIN STREAM

The Mean Annual High Water line (MAHW) was determined by “Bank Full Indicators” per the Mass DEP Guidelines. These include: Top of undercuts or bank erosion; Specific changes in vegetation; Evidence of frequent bank overflows into adjacent area; Water staining on boulders, trees, and bridge abutments; Changes in bank materials; Bark of trees (smooth bellow MAHW and normal above; etc.

In this case, where the banks were high, undercuts and flow marks on the banks were observed. Where the bank is low, there was clear evidence of overflow into the adjacent area and the limits of the overflows were marked as MAHW. These were marked with pink survey ribbon labeled MAHW and consecutively numbered. The flagging begins at MAHW 1 at the southwest portion of the site where the stream leaves property, and ends at MAHW 36 where the stream enters the site at the large, corrugated metal culvert near the southeast property corner. Only the northerly side of the stream was delineated.

The 200 foot Riverfront Area is a line 200 feet from this MAHW line.

BANKS OF STREAMS

In most areas of the site, the stream banks are inside the boundary of the BVW. The limit of the 100 foot Buffer Zone will be controlled by the limit of the BVW. Therefore, the locations of

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these banks are not critical for a project that is not altering the wetlands resource areas. Therefore, the on-site bank is not delineated where the banks are inside the BVW at this time. In those stream segments where there is not a vegetated wetlands bordering on the stream, those portions were delineated using pink survey flagging labeled “Bank” and numbered as shown on the plan.

As noted earlier in this report, it appears that three stream crossings will be necessary for the concept project. At such time as the crossing locations are selected, additional detail will likely be necessary to accurately delineate the stream banks within the BVW for the design of the crossings and determination of areas for wetland replication to meet the regulatory performance standards.

Under the Mass. Wetlands Protection Act Regulations, 310 CMR 10.54 (2)(c), the definition of the upper boundary of Bank is “*The first observable break in slope or the mean annual flood level, whichever is lower. The lower boundary of the bank is the mean annual low flow level.*” For intermittent streams, the entire stream within the upper bank limits is considered “Bank”.

For the main perennial stream at this site, the MAHW can be used as a conservative location of bank.

The following are the portions of the bank delineated for this parcel.

Intermittent Stream Branch 4:

The Bank Flags were marked Bank 1 to Bank 8 along the west side and Bank 5 to 7 on the east side. These are located just north of the confluence with the main perennial stream.

Intermittent Stream Branch 5 (A-Series):

This stream system is entirely within the Route 5 road right-of-way, east of the northern portion of Parcel 14. This stream section is relatively narrow and well defined with steep banks and also includes a drain ditch at the base of the eastern side of the old trolley bed. The flags are labeled Bank A1 to Bank A30 and are placed along the top of the banks. The MAHW is below the top of the bank, but due to the steepness, is not significantly different than the MAHW.

This stream system continues to the north beyond the end of the flagging. Upstream, both the stream channel and the adjacent ditch flow within BVW areas north of the flagging limit.

Bank Series C

This is a small section of intermittent stream that drains through the old trolley bridge abutment and easterly to a culvert under Route 5. Since there are BVWs upstream and downstream, this section of stream is a jurisdictional “Bank”. These flags are Labeled Bank C1 to Bank C8.

F25678

Adaptive Grow Technologies
RE: Greenfield Road (Rt. 5) Site, Deerfield, MA.
Wetland Resource Area Delineation



May 16, 2022

BORDERING LAND SUBJECT TO FLOODING (BLSF)

A portion of the latest FEMA map is contained in Attachment 2. The portion of the site along the main perennial stream at the south of the site is shown on the latest FEMA National Flood Insurance Program mapping as being in a “Zone B” This is an area subject to flooding between a 100 year and 500 year flood event. This is not within a flood hazard area protected under the Mass. Wetlands Protection Act and is generally not considered BLSF under the regulations.

The remainder of the site is not within a flood hazard zone.

MASS NATURAL HERITAGE ENDANGERED SPECIES PROGRAM

According to the latest Mass, Natural Heritage Endangered Species Program (NHESP) Mapping on the Mass. GIS, there are no areas of Estimated Habitat or Priority Habitat of Rare Species on or near the subject property. There are also no mapped areas identified as Certified or Potential Vernal Pools on, or near the site.

Attachment 3 is the map with the NHESP data layers from the latest Mass. GIS.

Please note that the delineations performed are based on best professional judgment and interpretation per the applicable regulatory guidelines. The delineations are not an official “Determination” under the Mass. Wetlands Protection Act and associated regulations until accepted by the Conservation Commission or Mass. DEP through the filing of an Abbreviated Notice of Resource Area Delineation or a Notice of Intent under the Mass. Wetlands Protection Act.

If you have any questions regarding the delineation or this report, please contact me.

Sincerely,

Fredric W. King

Fredric W. King, PE
Senior Engineer
& Wetland Specialist

Attachment 1: DEP Field Data Forms
Attachment 2: FEMA NFIP Map
Attachment 3: Mass Natural Heritage Map

Adaptive Grow Technologies
RE: Greenfield Road (Rt. 5) Site, Deerfield, MA.
Wetland Resource Area Delineation

F25678



May 16, 2022

ATTACHMENT 1

DEP WETLANDS FIELD DATA FORMS

DEP Bordering Vegetated Wetlands (310 CMR 10.55) Delineation Field Data Form

Applicant: Ken Bouquilin Prepared by: Fred King Project location: Greenfield Rd. DEP File #: _____

Check all that apply:

Deerfield, MA

- Vegetation alone presumed adequate to delineate BVW boundary: fill out Section I only
- Vegetation and other indicators of hydrology used to delineate BVW boundary: fill out Sections I and II
- Method other than dominance test used (attach additional information)

Section I. Vegetation Observation Plot Number: P1 Transect Number: T1 Date of Delineation: 4/28/2022

A. Sample Layer and Plant Species (by common/scientific name)	B. Percent Cover (or basal area)	C. Percent Dominance	D. Dominant Plant (yes or no)	E. Wetland Indicator Category*
Trees				
Eastern Hemlock (<i>Tsuga canadensis</i>) 5, 8"	69 sq in	14.3	No	FACU
Red Maple (<i>Acer rubrum</i>) 23"	413 sq in	85.7	Yes	FAC
Shrub/Sapling/Vine				
Eastern Hemlock (<i>Tsuga canadensis</i>)	10.5	77.7	Yes	FACU
Red Maple (<i>Acer rubrum</i>)	3.0	22.3	Yes	FAC
Ground Cover				
Hay Scented Fern (<i>Dennstaedtia punctilobula</i>)	10.5	100.0	Yes	UPL

* Use an asterisk to mark wetland indicator plants: plant species listed in the Wetlands Protection Act (MGL c.131, s.40); plants in the genus *Sphagnum*; plants listed as FAC, FAC+, FACW-, FACW+, or OBL; or plants with physiological or morphological adaptations. If any plants are identified as wetland indicator plants due to physiological or morphological adaptations, describe the adaptations next to the asterisk.

Vegetation conclusion:

Number of dominant wetland indicator plants: 2 Number of dominant non-wetland indicator plants: 2

Is the number of dominant wetland plants equal to or greater than the number of dominant non-wetland plants? Yes No

If vegetation alone is presumed adequate to delineate the BVW boundary, submit this form with the Request for Determination of Applicability or Notice of Intent.

MA DEP; 3/95

Section II. Indicators of Hydrology

Hydric Soil Interpretation

1. Soil Survey

Is there a published soil survey for this site? Yes No

title/date: Soil Survey of Franklin County, Mass
Date 1967

map number:

soil type mapped: Raynham 30A

hydric soil inclusions: Birdsall 9A

Are field observations consistent with soil survey? Yes

Remarks: The low area within this map appears to be Birdsall soil.

Upland appears consistent with Raynham soil

2. Soil Description

Horizon	Depth	Matrix Color	Mottles Color
A - FSL	0 - 6"	10 YR 2/2	None
B - LFS	6-14"	10 YR 3/6	10 YR 5/8 few Begin @ 8"
C - LFS	14-20"	10 YR 4/6	10 YR 5/8 Com

Remarks: Saturated at 18" > 12"

3. Other: Soils too bright for Hydric

Conclusion: Is soil hydric? Yes No

Other Indicators of Hydrology: (check all that apply and describe)

Site inundated: _____

Depth to free water in observation hole: _____

Depth to soil saturation in observation hole: _____

Water marks: _____

Drift lines: _____

Sediment deposits: _____

Drainage patterns in BVW: _____

Oxidized rhizospheres: _____

Water-stained leaves: _____

Recorded data (stream, lake, or tidal gauge; aerial photo; other): _____

Other: _____

Vegetation and Hydrology Conclusion

	Yes	No
Number of wetland indicator plants ≥ number of non-wetland indicator plants	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Wetland hydrology present: hydric soil present	<input type="checkbox"/>	<input checked="" type="checkbox"/>
other indicators of hydrology Present	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Sample location is in a BVW	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Submit this form with the Request for Determination of Applicability or Notice of Intent.

DEP Bordering Vegetated Wetlands (310 CMR 10.55) Delineation Field Data Form

Applicant: Ken Bouquilin Prepared by: Fred King Project location: Greenfield Rd. DEP File #: _____

Check all that apply:

Deerfield, MA

- Vegetation alone presumed adequate to delineate BVW boundary: fill out Section I only
- Vegetation and other indicators of hydrology used to delineate BVW boundary: fill out Sections I and II
- Method other than dominance test used (attach additional information)

Section I. Vegetation Observation Plot Number: P2 Transect Number: T1 Date of Delineation: 4/28/2022

A. Sample Layer and Plant Species (by common/scientific name)	B. Percent Cover (or basal area)	C. Percent Dominance	D. Dominant Plant (yes or no)	E. Wetland Indicator Category*
Trees				
Eastern Hemlock (<i>Tsuga canadensis</i>) 5, 6"	48 sq in	6.4	No	FACU
Red Maple (<i>Acer rubrum</i>) 21"	347 sq in	46.8	Yes	FAC
Red Oak (<i>Quercus rubra</i>) 21"	347 sq in	46.8	Yes	FACU-
Shrub/Sapling/Vine				
Eastern Hemlock (<i>Tsuga canadensis</i>)	10.5	100	Yes	FACU

Ground Cover

None

* Use an asterisk to mark wetland indicator plants: plant species listed in the Wetlands Protection Act (MGL c.131, s.40); plants in the genus *Sphagnum*; plants listed as FAC, FAC+, FACW-, FACW+, or OBL; or plants with physiological or morphological adaptations. If any plants are identified as wetland indicator plants due to physiological or morphological adaptations, describe the adaptations next to the asterisk.

Vegetation conclusion:

Number of dominant wetland indicator plants: 1 Number of dominant non-wetland indicator plants: 2

Is the number of dominant wetland plants equal to or greater than the number of dominant non-wetland plants? Yes No X

If vegetation alone is presumed adequate to delineate the BVW boundary, submit this form with the Request for Determination of Applicability or Notice of Intent.

MA DEP; 3/95

Section II. Indicators of Hydrology

Hydric Soil Interpretation

1. Soil Survey

Is there a published soil survey for this site? Yes No

title/date: Soil Survey of Franklin County, Mass
Date 1967
map number:
soil type mapped: Raynham 30A
hydric soil inclusions: Birdsall 9A

Are field observations consistent with soil survey? Yes
Remarks: The low area within this map appears to be Birdsall soil.
Upland appears consistent with Raynham soil

2. Soil Description

Horizon	Depth	Matrix Color	Mottles Color
A - FSL	0 - 6"	10 YR 2/1	None
B - LFS	6-14"	10 YR 5/3	10 YR 5/8 Many Begin @ 6"
C - LFS	14-20"	10 YR 4/4	Too wet to view

Remarks: Saturated at 7", water at 8"

3. Other:

Conclusion: Is soil hydric? Yes No

Other Indicators of Hydrology: (check all that apply and describe)

- Site inundated: _____
- Depth to free water in observation hole: 8"
- Depth to soil saturation in observation hole: 7"
- Water marks: _____
- Drift lines: _____
- Sediment deposits: _____
- Drainage patterns in BVW: _____
- Oxidized rhizospheres: _____
- Water-stained leaves: Yes
- Recorded data (stream, lake, or tidal gauge; aerial photo; other): _____
- Other: _____

Vegetation and Hydrology Conclusion		Yes	No
Number of wetland indicator plants	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
≥ number of non-wetland indicator plants			
Wetland hydrology present:			
hydric soil present	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
other indicators of hydrology			
Present	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Sample location is in a BVW	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

Submit this form with the Request for Determination of Applicability or Notice of Intent.

DEP Bordering Vegetated Wetlands (310 CMR 10.55) Delineation Field Data Form

Applicant: Ken Bouquilin Prepared by: Fred King Project location: Greenfield Rd. DEP File #: _____

Check all that apply: Deerfield, MA

- Vegetation alone presumed adequate to delineate BVW boundary: fill out Section I only
- Vegetation and other indicators of hydrology used to delineate BVW boundary: fill out Sections I and II
- Method other than dominance test used (attach additional information)

Section I. Vegetation Observation Plot Number: P1 Transect Number: T2 Date of Delineation: 4/28/2022

A. Sample Layer and Plant Species (by common/scientific name)	B. Percent Cover (or basal area)	C. Percent Dominance	D. Dominant Plant (yes or no)	E. Wetland Indicator Category*
Trees				
White Pine (Pinus strobus) 7"	38 sq in	15.1	No	FACU
Red Maple (Acer rubrum) 5"	20 sq in	7.9	No	FAC
Red Oak (Quercus rubra) 11, 11"	194 sq in	77.0	Yes	FACU-
Shrub/Sapling/Vine				
Black Cherry (Prunus serotina)	10.5	43.7	Yes	FACU
American Beech (Fagus grandifolia)	10.5	43.7	Yes	FACU
White Pine (Pinus strobus)	3.0	12.6	No	FACU
Ground Cover				
White Pine seedling (Pinus strobus)	3.0	18.2	Yes	FACU
Canada Mayflower (Maianthemum canadense)	10.5	63.6	Yes	FAC-
Black Cherry seedlings	3.0	18.2	Yes	FACU

* Use an asterisk to mark wetland indicator plants: plant species listed in the Wetlands Protection Act (MGL c.131, s.40); plants in the genus *Sphagnum*; plants listed as FAC, FAC+, FACW-, FACW+, or OBL; or plants with physiological or morphological adaptations. If any plants are identified as wetland indicator plants due to physiological or morphological adaptations, describe the adaptations next to the asterisk.

Vegetation conclusion:

Number of dominant wetland indicator plants: 0 Number of dominant non-wetland indicator plants: 6

Is the number of dominant wetland plants equal to or greater than the number of dominant non-wetland plants? Yes No

If vegetation alone is presumed adequate to delineate the BVW boundary, submit this form with the Request for Determination of Applicability or Notice of Intent. MA DEP; 3/95

Section II. Indicators of Hydrology

Hydric Soil Interpretation

1. Soil Survey

Is there a published soil survey for this site? Yes No

title/date: Soil Survey of Franklin County, Mass
Date 1967
map number:
soil type mapped: Sudbury 260A
hydric soil inclusions: Birdsall 9A

Are field observations consistent with soil survey? Yes
Remarks: The low area within this map appears to be Birdsall soil.
Upland appears consistent with Sudbury soil

2. Soil Description

Horizon	Depth	Matrix Color	Mottles Color
A - FSL	0 - 4"	10 YR 2/2	None
B - LFS	4-18"	10 YR 3/4	None observed

Remarks: Saturated at 14" > 12"

3. Other:

Conclusion: Is soil hydric? Yes No

Other Indicators of Hydrology: (check all that apply and describe)

- Site inundated: _____
- Depth to free water in observation hole: _____
- Depth to soil saturation in observation hole: _____
- Water marks: _____
- Drift lines: _____
- Sediment deposits: _____
- Drainage patterns in BVW: _____
- Oxidized rhizospheres: _____
- Water-stained leaves: _____
- Recorded data (stream, lake, or tidal gauge; aerial photo; other): _____
- Other: _____

Vegetation and Hydrology Conclusion		Yes	No
Number of wetland indicator plants	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
≥ number of non-wetland indicator plants			
Wetland hydrology present:			
hydric soil present	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
other indicators of hydrology			
Present	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Sample location is in a BVW	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Submit this form with the Request for Determination of Applicability or Notice of Intent.

DEP Bordering Vegetated Wetlands (310 CMR 10.55) Delineation Field Data Form

Applicant: Ken Bouquilin Prepared by: Fred King Project location: Greenfield Rd. DEP File #: _____

Check all that apply:

Deerfield, MA

- Vegetation alone presumed adequate to delineate BVW boundary: fill out Section I only
- Vegetation and other indicators of hydrology used to delineate BVW boundary: fill out Sections I and II
- Method other than dominance test used (attach additional information)

Section I. Vegetation Observation Plot Number: P1 Transect Number: T2 Date of Delineation: 4/28/2022

A. Sample Layer and Plant Species (by common/scientific name)	B. Percent Cover (or basal area)	C. Percent Dominance	D. Dominant Plant (yes or no)	E. Wetland Indicator Category*
Trees				
White Pine (<i>Pinus strobus</i>) 7"	38 sq in	16.4	No	FACU
Red Oak (<i>Quercus rubra</i>) 11"	194 sq in	83.6	Yes	FACU-
Shrub/Sapling/Vine				
Black Birch (<i>Betula lenta</i>)	3.0	6.2	No	FACU
Gray Dogwood (<i>Cornus racemosa</i>)	10.5	20.0	Yes	UPL
White Pine (<i>Pinus strobus</i>)	38.0	73.8	Yes	FACU
Ground Cover				
White Pine seedling (<i>Pinus strobus</i>)	3.0	50.0	Yes	FACU
Canada Mayflower (<i>Maianthemum canadense</i>)	3.0	50.0	Yes	FAC-

* Use an asterisk to mark wetland indicator plants: plant species listed in the Wetlands Protection Act (MGL c.131, s.40); plants in the genus *Sphagnum*; plants listed as FAC, FAC+, FACW-, FACW+, or OBL; or plants with physiological or morphological adaptations. If any plants are identified as wetland indicator plants due to physiological or morphological adaptations, describe the adaptations next to the asterisk.

Vegetation conclusion:

Number of dominant wetland indicator plants: 0 Number of dominant non-wetland indicator plants: 5

Is the number of dominant wetland plants equal to or greater than the number of dominant non-wetland plants? Yes No

If vegetation alone is presumed adequate to delineate the BVW boundary, submit this form with the Request for Determination of Applicability or Notice of Intent.

MA DEP; 3/95

Section II. Indicators of Hydrology

Hydric Soil Interpretation

1. Soil Survey

Is there a published soil survey for this site? Yes No

title/date: Soil Survey of Franklin County, Mass
Date 1967
map number:
soil type mapped: Sudbury 260A
hydric soil inclusions: Birdsall 9A

Are field observations consistent with soil survey? Yes
Remarks: The low area within this map appears to be Birdsall soil.
Upland appears consistent with Sudbury soil

2. Soil Description

Horizon	Depth	Matrix Color	Mottles Color
A - FSL	0 - 3"	10 YR 1/1	None
B - LFS	3-15"	10 YR 3/4	7.5 YR 5/8 Many begin @ 6"

Remarks: Water at 7"

3. In a broad swale

Conclusion: Is soil hydric? Yes No

Other Indicators of Hydrology: (check all that apply and describe)

- Site inundated: _____
- Depth to free water in observation hole: 7"
- Depth to soil saturation in observation hole: _____
- Water marks: _____
- Drift lines: _____
- Sediment deposits: _____
- Drainage patterns in BVW: In a swale
- Oxidized rhizospheres: _____
- Water-stained leaves: _____
- Recorded data (stream, lake, or tidal gauge; aerial photo; other): _____
- Other: _____

Vegetation and Hydrology Conclusion

	Yes	No
Number of wetland indicator plants ≥ number of non-wetland indicator plants	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Wetland hydrology present: hydric soil present	<input checked="" type="checkbox"/>	<input type="checkbox"/>
other indicators of hydrology Present	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Sample location is in a BVW	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Submit this form with the Request for Determination of Applicability or Notice of Intent.

DEP Bordering Vegetated Wetlands (310 CMR 10.55) Delineation Field Data Form

Applicant: Ken Bouquilin Prepared by: Fred King Project location: Greenfield Rd. DEP File #: _____

Check all that apply:

Deerfield, MA

- Vegetation alone presumed adequate to delineate BVW boundary: fill out Section I only
- Vegetation and other indicators of hydrology used to delineate BVW boundary: fill out Sections I and II
- Method other than dominance test used (attach additional information)

Section I. Vegetation Observation Plot Number: P1 Transect Number: T3 Date of Delineation: 4/28/2022

A. Sample Layer and Plant Species (by common/scientific name)	B. Percent Cover (or basal area)	C. Percent Dominance	D. Dominant Plant (yes or no)	E. Wetland Indicator Category*
Trees				
American Beech (<i>Fagus grandifolia</i>) 5"	20 sq in	3.3	No	FACU
Red Maple (<i>Acer rubrum</i>) 12"	114 sq in	18.5	No	FAC
Red Oak (<i>Quercus rubra</i>) 17, 18"	482 sq in	78.2	Yes	FACU-
Shrub/Sapling/Vine				
Eastern Hemlock (<i>Tsuga canadensis</i>)	10.5	77.8	Yes	FACU
Rosebay Rhododendron (<i>Rhododendron maximum</i>)	3.0	11.1	No	FAC
Highbush Blueberry (<i>Vaccinium corymbosum</i>)	3.0	11.1	No	FACW-
Ground Cover				
White Pine seedlings (<i>Pinus strobus</i>)	3.0	7.6	No	FACU
Princess Pine moss (<i>Lycopodium coscurum</i>)	3.0	7.6	No	FACU
Rosebay Rhododendron (<i>Rhododendron maximum</i>)	20.5	51.1	Yes	FAC
Cinnamon Fern (<i>Osmunda cinnamomea</i>)	10.5	26.2	Yes	FACW
Chokeberry (<i>Aronia melanocarpa</i>)	3.0	7.6	No	FAC

* Use an asterisk to mark wetland indicator plants: plant species listed in the Wetlands Protection Act (MGL c.131, s.40); plants in the genus *Sphagnum*; plants listed as FAC, FAC+, FACW-, FACW+, or OBL; or plants with physiological or morphological adaptations. If any plants are identified as wetland indicator plants due to physiological or morphological adaptations, describe the adaptations next to the asterisk.

Vegetation conclusion:

Number of dominant wetland indicator plants: 2 Number of dominant non-wetland indicator plants: 2

Is the number of dominant wetland plants equal to or greater than the number of dominant non-wetland plants? Yes No

If vegetation alone is presumed adequate to delineate the BVW boundary, submit this form with the Request for Determination of Applicability or Notice of Intent.

MA DEP; 3/95

Section II. Indicators of Hydrology

Hydric Soil Interpretation

1. Soil Survey

Is there a published soil survey for this site? Yes No

title/date: Soil Survey of Franklin County, Mass
Date 1967
map number:
soil type mapped: Sudbury 260A
hydric soil inclusions: Birdsall 9A

Are field observations consistent with soil survey? Yes
Remarks: The low area within this map appears to be Birdsall soil.
Upland appears consistent with Sudbury soil

2. Soil Description

Horizon	Depth	Matrix Color	Mottles Color
A - FSL	0 - 5"	10 YR 2/2	None
B - LFS	5-16"	10 YR 3/4	None
C - LFS	16 - 20"	10 YR 4/6	7.5 YR 5/8 Many

Remarks: Saturated at 16"

3.

Conclusion: Is soil hydric? Yes No

Other Indicators of Hydrology: (check all that apply and describe)

- Site inundated: _____
- Depth to free water in observation hole: _____
- Depth to soil saturation in observation hole: _____
- Water marks: _____
- Drift lines: _____
- Sediment deposits: _____
- Drainage patterns in BVW: I _____
- Oxidized rhizospheres: _____
- Water-stained leaves: _____
- Recorded data (stream, lake, or tidal gauge; aerial photo; other): _____
- Other: _____

Vegetation and Hydrology Conclusion		Yes	No
Number of wetland indicator plants	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
≥ number of non-wetland indicator plants			
Wetland hydrology present:			
hydric soil present	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
other indicators of hydrology			
Present	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Sample location is in a BVW	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Submit this form with the Request for Determination of Applicability or Notice of Intent.

DEP Bordering Vegetated Wetlands (310 CMR 10.55) Delineation Field Data Form

Applicant: Ken Bouquilin Prepared by: Fred King Project location: Greenfield Rd. DEP File #: _____

Check all that apply:

Deerfield, MA

- Vegetation alone presumed adequate to delineate BVW boundary: fill out Section I only
- Vegetation and other indicators of hydrology used to delineate BVW boundary: fill out Sections I and II
- Method other than dominance test used (attach additional information)

Section I. Vegetation Observation Plot Number: P2 Transect Number: T3 Date of Delineation: 4/28/2022

A. Sample Layer and Plant Species (by common/scientific name)	B. Percent Cover (or basal area)	C. Percent Dominance	D. Dominant Plant (yes or no)	E. Wetland Indicator Category*
Trees				
American Beech (<i>Fagus grandifolia</i>) 5"	20 sq in	11.5	No	FACU
Red Oak (<i>Quercus rubra</i>) 14"	154 sq in	88.5	Yes	FACU-
Shrub/Sapling/Vine				
Highbush Blueberry (<i>Vaccinium corymbosum</i>)	3.0	100.0	Yes	FACW-
Ground Cover				
White Pine seedlings (<i>Pinus strobus</i>)	3.0	18.2	No	FACU
Rosebay Rhododendron (<i>Rhododendron maximum</i>)	3.0	18.2	No	FAC
Cinnamon Fern (<i>Osmunda cinnamomea</i>)	10.5	63.6	Yes	FACW

* Use an asterisk to mark wetland indicator plants: plant species listed in the Wetlands Protection Act (MGL c.131, s.40); plants in the genus *Sphagnum*; plants listed as FAC, FAC+, FACW-, FACW+, or OBL; or plants with physiological or morphological adaptations. If any plants are identified as wetland indicator plants due to physiological or morphological adaptations, describe the adaptations next to the asterisk.

Vegetation conclusion:

Number of dominant wetland indicator plants: 2 Number of dominant non-wetland indicator plants: 1

Is the number of dominant wetland plants equal to or greater than the number of dominant non-wetland plants? Yes No

If vegetation alone is presumed adequate to delineate the BVW boundary, submit this form with the Request for Determination of Applicability or Notice of Intent.

MA DEP; 3/95

Section II. Indicators of Hydrology

Hydric Soil Interpretation

1. Soil Survey

Is there a published soil survey for this site? Yes No

title/date: Soil Survey of Franklin County, Mass
Date 1967
map number:
soil type mapped: Sudbury 260A
hydric soil inclusions: Birdsall 9A

Are field observations consistent with soil survey? Yes
Remarks: The low area within this map appears to be Birdsall soil.
Upland appears consistent with Sudbury soil

2. Soil Description

Horizon	Depth	Matrix Color	Mottles Color
A - FSL	0 - 5"	10 YR 2/2	None
B - LFS	5-12"	10 YR 3/4	7.5 YR 5/8 Some Begin @ 10"
C - LFS	12 - 18"	10 YR 4/6	7.5 YR 5/8 Many

Remarks: Saturated at 14"

3.

Conclusion: Is soil hydric? Yes No

Other Indicators of Hydrology: (check all that apply and describe)

- Site inundated: _____
- Depth to free water in observation hole: _____
- Depth to soil saturation in observation hole: 14
- Water marks: _____
- Drift lines: _____
- Sediment deposits: _____
- Drainage patterns in BVW: I
- Oxidized rhizospheres: _____
- Water-stained leaves: _____
- Recorded data (stream, lake, or tidal gauge; aerial photo; other): _____
- Other: _____

Vegetation and Hydrology Conclusion		
	Yes	No
Number of wetland indicator plants ≥ number of non-wetland indicator plants	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Wetland hydrology present: hydric soil present	<input checked="" type="checkbox"/>	<input type="checkbox"/>
other indicators of hydrology Present	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Sample location is in a BVW	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Submit this form with the Request for Determination of Applicability or Notice of Intent.

F25678

Adaptive Grow Technologies
RE: Greenfield Road (Rt. 5) Site, Deerfield, MA.
Wetland Resource Area Delineation



May 16, 2022

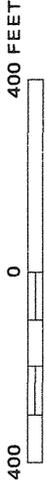
ATTACHMENT 2

FEMA NATIONAL FLOOD INSURANCE PROGRAM MAP

Program, at (603) 550-0020, or (603) 421-0072.



APPROXIMATE SCALE



NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

TOWN OF
DEERFIELD,
MASSACHUSETTS
FRANKLIN COUNTY

PANEL 6 OF 12
(SEE MAP INDEX FOR PANELS NOT PRINTED)

COMMUNITY-PANEL NUMBER
250115 0006 B

EFFECTIVE DATE:
JULY 2, 1980



U.S. DEPARTMENT OF HOUSING
AND URBAN DEVELOPMENT
FEDERAL INSURANCE ADMINISTRATION



ZONE C

This is an official FIRMette showing a portion of the above-referenced flood map created from the MSC FIRMette Web tool. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For additional information about how to make sure the map is current, please see the Flood Hazard Mapping Updates Overview Fact Sheet available on the FEMA Flood Map Service Center home page at <https://msc.fema.gov>.

Adaptive Grow Technologies
RE: Greenfield Road (Rt. 5) Site, Deerfield, MA.
Wetland Resource Area Delineation

F25678



May 16, 2022

ATTACHMENT 3

MASS GIS – NATURAL HERITAGE DATA MAP

Potential Vernal Pools



NHESP Priority Habitats of Rare Species



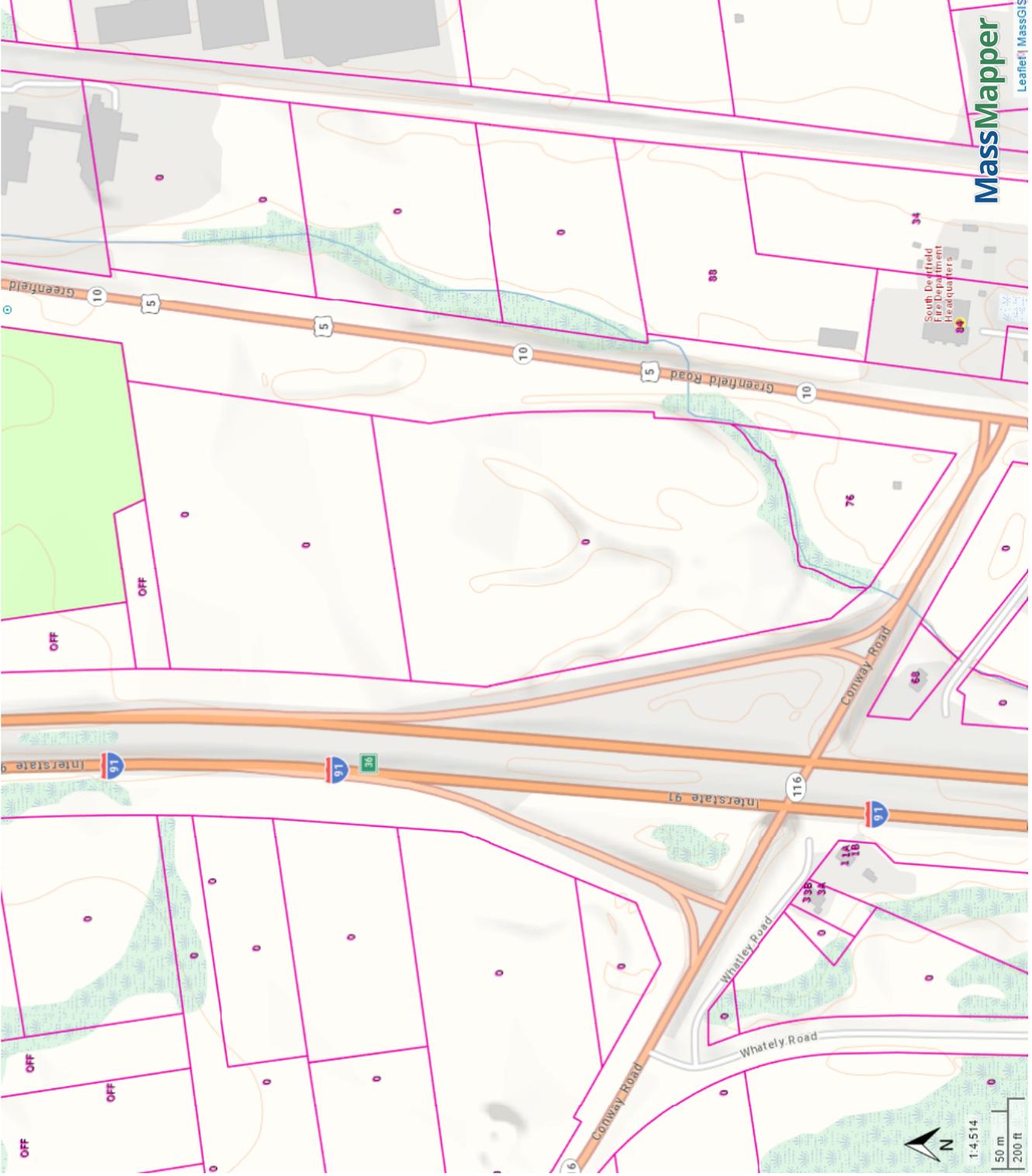
NHESP Estimated Habitats of Rare Wildlife



NHESP Certified Vernal Pools



Property Tax Parcels



MassMapper
Leaflet | MassGIS

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