Office Use Only/Date of Receipt (Stamp)

APPLICATION FOR DETERMINATION OF PERMITTED/NON-REGULATED ACTIVITY

1. SITE LOCATION (Street) and Description: 21 Marshfield Rd Niantic CT

   Assessor's Map 04.7 19 Lot # _____

   Note: It is the applicant's responsibility to provide the correct site address, map/lot number for the legal notice. Provide a description of the land in sufficient detail to allow identification of the inland wetlands and watercourses, the area(s) (in acres or square feet) of wetlands and watercourses to be disturbed, soil type(s), and wetland vegetation.

2. APPLICANT: Four Brothers Keeper LLC

   Address: 24 Marshfield Rd
   Niantic CT 06357

   Phone: 860 869 1860

   Fax: _____

   Business: _____

   Cell: _____

   Email: _____

   Applicant's interest in the land: GNHA Property Member

   ***If the applicant is a Limited Liability Corporation or a Corporation provide the managing member's or responsible corporate officer's name, address, and telephone number.*

3. OWNER: Brandy Moore & Derek Moore

   Address: 26 Sudbrooke Road
   London, England SW12 8TG

   Phone: 011 44 7875 765104

   Email: brandy.moore@microsoft.com

   Fax: _____

   Cell: _____

   ***As the legal owner of the property listed on this application, I hereby consent to the proposed activities. And I hereby authorize the members and agents of the Agency to inspect the subject land, at reasonable times, during the pendancy of the application and for the life of the permit.*

   Owners Printed Name: Brandy Moore & Derek Moore

   Owners Signature: Brandy Moore Derek Moore Date: 3/7/2020

4. Person Responsible for Compliance: Brian Kennedy

   Address: 24 Marshfield Road Niantic CT

   Phone Number: 860 869 1860 Email: YBKSEPOR@GMail.Com

5. Describe the Activity and Purpose: Clean out culvert entrance & Exit To Maintain Natural water Flow

6. Describe mitigation measures such as erosion controls, added wetlands plantings, infiltration and run off: working during Low tides & Low water levels

7. Is the property within 500 ft of an adjoining town? Yes (No)

8. Inland Wetland/Watercourse Information:

   Area of wetland to be disturbed 200 sq. ft.

   Area of watercourse to be disturbed 30 sq. ft.

   Upland Review Area to be disturbed _____ sq. ft. (area within 100' of wetland)

   Will fill be needed on site? Yes (No)

   If Yes, how much fill is needed? _____ cubic yards

   Will material be removed from site? Yes (No)

   If Yes, how much will be removed? _____ cubic yards

   The property contains (circle one or more) (WATERCOURSE) WATERBODY WOODED-WETLAND SWAMP

   Name of Soil Scientist and date of survey _____

9. Site Plan Title, Date, Engineer/Surveyor Name: _____

The undersigned owner hereby consents to necessary and proper inspections of the above mentioned property by the Commission or agent of the Commission, at reasonable times both before and after a final decision has been issued by the Commission. The undersigned also swears that the information supplied is accurate to the best of his/ her knowledge and belief.

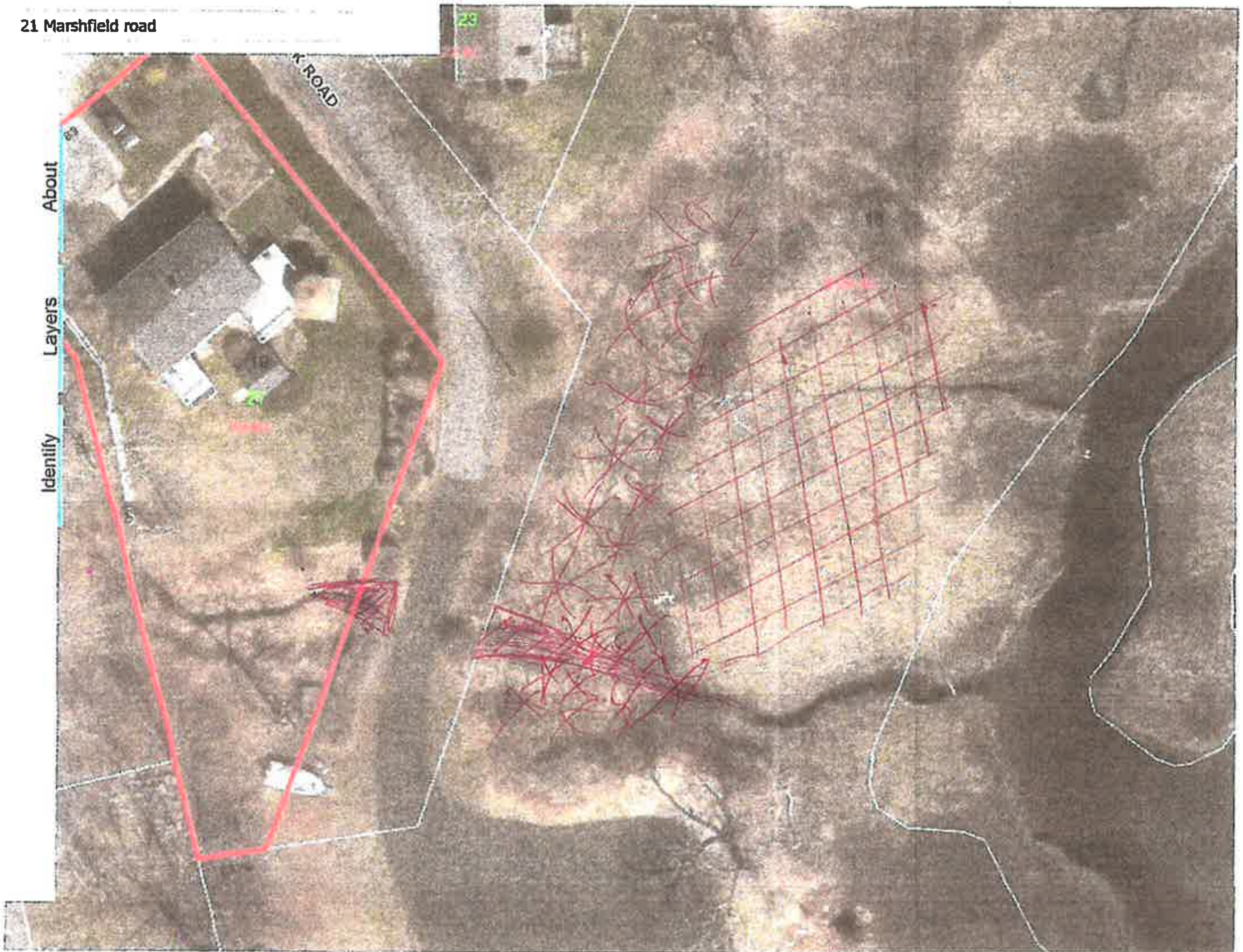
Brian F. Moore — 3/7/2020

Derek [illegible] — 3/7/2020

Signature of Owner (s) — Date

mapquest

Creek Road (Access road) to the GNHA Clubhouse between 21 & 23 Marshfield Road



Email Map Link

Copy and paste the following string into an email to link to the current map view:

10m
40ft
Close

* Phragmites To Be Pulled out

AREA TO Clean out To Maintain Natural Flow

Phragmites To Be Cut

lat:41.3040, long:-72.2253

24 Marshfield road

Search Results

Parcel Details

21 MARSHFIELD RD GNH

MOORE BRANDY & DEREK

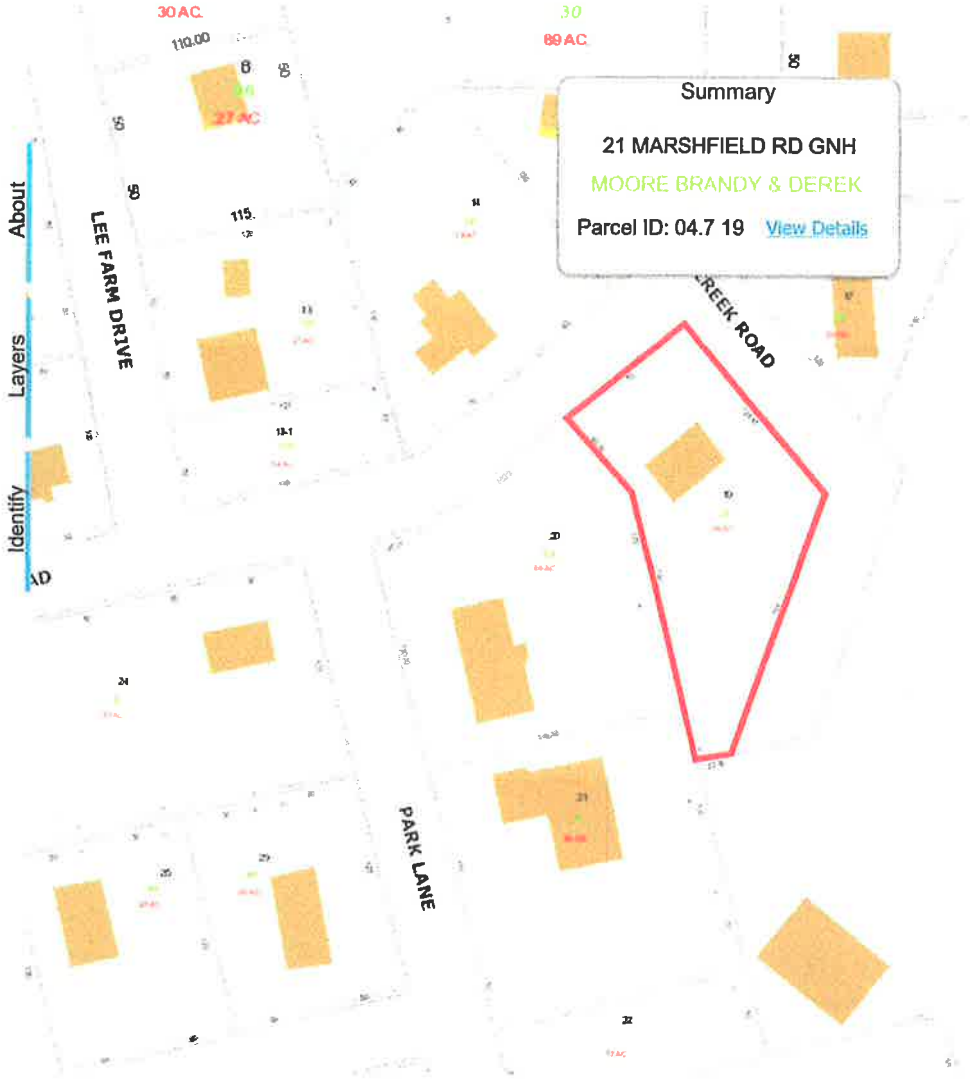
26 SUDBROOKE ROAD
LONDON, ENGLAND, SW 12 8T6

Parcel ID: 04.7 19
Lot Size: 0.3896
Sale Price: $290,000.00

Links
Parcel Details
Photo
Google Map

Abutters
Bing Bird's Eye
Property Map
Abutter Distance:
Adjacent
Adjacent
50 ft
100 ft
200 ft
300 ft
400 ft

Parcel ID: 04.7 19
Remove Parcel
Print Labels
Street Number:
Street Name: MARS...
Scroll



Email Map Link

Copy and paste the following string into an email to link to the current map view:

20m
100ft
Close

Print Map

Size:

Scale: 1" = ft. Title:

Close Print

lat:41.3045, long:-72.2251

24 Marshfield road

Search Results

Parcel Details

CREEK RD

GIANTS NECK HEIGHTS ASSOC

BOX 625
NIANTIC, CT 06357

Parcel ID: 04.7 18
Lot Size: 0
Sale Price: $0.00

Links	Abutters
Parcel Details	Bing Bird's Eye
Photo	Property Map
Google Map	Abutter Distance:

Adjacent
Adjacent
50 ft
100 ft
200 ft
300 ft
400 ft

Add Parcel
Parcel ID: 04.7 18
Remove Parcel
Street Number: Null
Print Labels
Street Name: CREEK

Email Map Link

Copy and paste the following string into an email to link to the current map view:

40m
200ft
Close

Print Map

Size:

Scale: 1" = ft. Title:

Close Print

lat:41.3050, long:-72.2233

Phragmites, Common Reed (Phragmites australis)

Phragmites is most commonly found in freshwater wetlands but it readily invades salt marshes that have been degraded by some type of flow restriction. In these cases, the most effective treatment is to restore the flow of salt water. Over a period of 10 to 20 years, phragmites will slowly die back and be replaced by salt marsh grasses. In brackish or freshwater wetlands where there is no possibility of introducing tidal salt waters, the following non-chemical control techniques can be used.

Management Options:

A. Cutting and pulling

B. Black Plastic

C. Reinforced Geomembrane Barrier

D. Prescribed Burning

E. Herbicides

A. Cutting and pulling:

Cutting or pulling has been used successfully to control phragmites. Treatments usually need to be repeated annually. The best time to cut phragmites is at the end of July. Cutting at other times may increase stand density. Phragmites stems should be cut below the lowest leaf, leaving a 6" or shorter stump. Hand-held cutters and gas-powered hedge trimmers work well. Weed whackers with a circular blade were found to be particularly efficient but were more dangerous to volunteers (Marks et al., 1993). Cut or pulled material should be removed from the site and composted or allowed to decay on the upland. Some patches may be too large to cut by hand, but repeated cutting of the perimeter of a stand can prevent vegetative expansion. Cutting can be expensive and labor intensive. In Quincy, Mass., $150,000 was spent to cut 10 acres of phragmites three times one summer using Bobcats mounted with lawnmower clippers. Hand-pulling, though labor intensive, is an effective technique for controlling phragmites in small areas with sandy
soils.

B. Black Plastic:

After cutting a stand of phragmites, anchor a sheet of black plastic over the cut area using sand bags or rocks. High temperatures under the plastic will eventually kill off the plants. This technique works best when the treated area is in direct sunlight. The following year when the plastic is removed, a few phragmites shoots may return. These can be cut or hand-pulled.

C. Reinforced Geomembrane Barrier:

Deep Root Phragmites Barrier™ is an impervious reinforced polypropylene geomembrane that prevents the spread of phragmites when installed vertically in a trench dug around the perimeter of a phragmites patch. This barrier is used to prevent phragmites from encroaching into a landscape. Rhizomes and adventitious roots are not able to penetrate the barrier and will subsequently grow in other directions. For more information about this product, contact Deep Root Partners, L.P., 81 Langton Street, Suite 4, San Francisco, CA 94103. (800-458-7668 [www.deeproot.com])

D.Prescribed Burning:

Prescribed burning, as a treatment by itself, can actually increase shoot densities and below ground biomass of phragmites. Burns can be effective, however, if followed by flooding in the marsh. Flooding a marsh after a burn requires the capacity to manipulate water levels. Burning has also been used successfully following herbicide applications. All applicable permits and licenses must be obtained prior to conducting a controlled burn. Phragmites fires can burn very hot and fast, and may start spot fires some distance away. This technique, therefore, can be dangerous, and is only appropriate for professional land managers.

E.Herbicides:

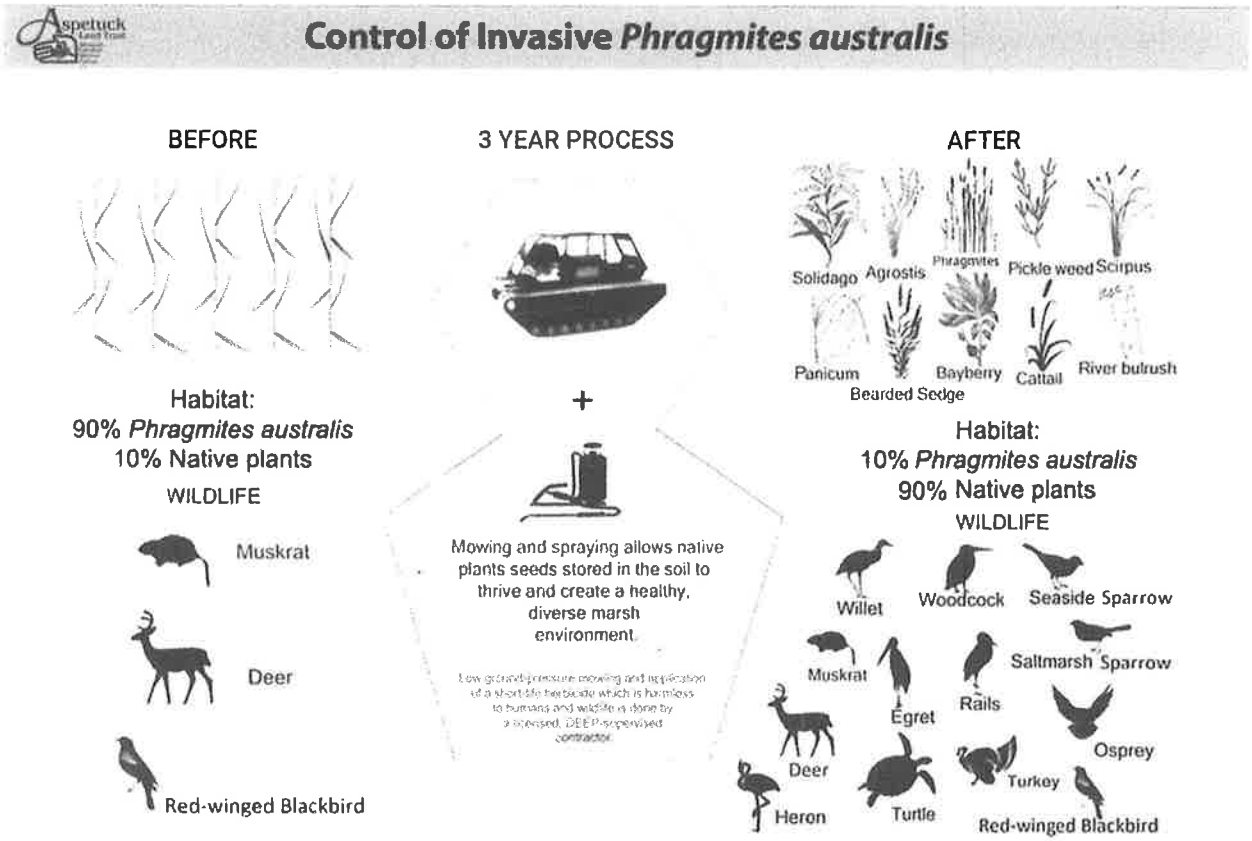
Glyphosate is most active in late summer when phragmites is in full bloom. Repeated treatments will likely be necessary. If the plants are too tall to spray, cut back in mid summer and apply glyphosate when regrowth reaches 2 to 3 ft tall. Choose Rodeo formulation for applications in standing water or along a shoreline (a permit from DEP is required for any pesticide application to a body of water). After 2 or 3 weeks following application of glyphosate, cut or mow down the stalks to stimulate the emergence and growth of other plants previously suppressed.

ROUNDUP [glyphosate (41%)]: 2.5 fl. oz./gal

RODEO [glyphosate (53.8%)]: 2 fl. oz./gal

Background on Phragmites:

While the familiar, tall, grassy plant looks innocent enough, infestation in the Saugatuck River watershed of Phragmites australis, a federally recognized invasive plant species, has resulted over time in the loss of a biologically–rich tidal marsh. The dense growth of the tall reeds blocks sunlight from reaching marsh soil preventing germination of seeds of important native plants. It also produces a chemical in its roots that stops native plants from growing. Overtaken by Phragmites, marshes and estuaries are deprived of a healthy mix of cattails, grasses, sedges and other plants. As a result it is an unsuitable habitat for many native marsh birds and other animals. After a three year treatment period of treatment we see an increase in egrets, snipe, rails, woodcock, muskrats, river otter, owls and many other species. The below infographic shows the results.



What's involved:

The 3-year process to remove Phragmites starts with mowing of the marsh area by a state-licensed contractor in the winter. In summer, a CT DEEP approved invasive plant control agent is applied by a licensed applicator. This process is repeated annually for two more years. The young Phragmites plants absorb the federally approved and registered herbicide (shown to be nontoxic to humans and wildlife) down to their extensive root system. After the plant dies it is cut again and mulched during the winter and early spring with special machinery. This process opens the marsh surface to light so that the seeds of native plants stored in the soil can return and the marsh community can thrive. The CT DEEP approved process has worked successfully in many areas including the Taylortown Salt Marsh in Westport. The CT DEEP program has also been successfully used to end Phragmites infestation in Connecticut Audubon Society properties in Ashford and Sharon among many other places. This method has been used effectively by Oyster fisherman in Willapa Bay in Washington state to control invasive, non-native spartina in their oyster beds