YORK RIDGE SUBDIVISION

TOWN OF NORTH YARMOUTH, MAINE SUBDIVISION APPLICATION

Prepared For:

Ben Grover 82 Doughty Road North Yarmouth, Maine 04097

Prepared By:

Atlantic Resource Consultants 541 US Route One, Suite 21 Freeport, Maine 04032 207.869.9050

February 2021





Subdivision Application York Ridge Subdivision

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TOWN OF NORTH YARMOUTH PLANNING BOARD REQUEST FOR HEARING

NAME OF APPLICANT:	PHONE #:
EMAIL:	ALT. PHONE#:
FULL ADDRESS:	
PROPERTY ADDRESS:	
MAP: LOT: ZONE:	
AGENT/REPRESENTATIVE (if other):	PHONE #:
EMAIL:	
FULL ADDRESS:	

The undersigned requests the North Yarmouth Planning Board consider the following application for:

Pre-application Sketch Plan Review	Major Subdivision
Minor Subdivision	Site Plan Review
Contract Zoning	
Other (Specify):	

NOTE TO APPLICANT:

- This form and appropriate materials must be filed at the Code Enforcement Office no later than (fourteen) 14 days prior to the regular meeting of the Board (2nd Tuesday monthly). Applications shall be accompanied by all applications fee and materials required by the applicable ordinance(s), checklists and fee schedule.
- 2. All applications shall include all materials and copies as specified on the submittal requirements form.
- 3. All materials in color shall be copied in color.

Application Authorization

I hereby make application to the Town of North Yarmouth for the above-referenced property(ies) and the development as described. To the best of my knowledge, the information provided herein is accurate and is in accordance with the Zoning and Subdivision Ordinances of the Town, except where waivers are requested. The Town of North Yarmouth Planning Board and/or town employees are authorized to enter the property(ies) for purposes of reviewing this proposal and for inspecting improvements as a result of an approval of this proposal. I understand that I am responsible for appearing, or having someone appear on my behalf, at all meetings before the Planning Board.

Signature:	Date:	
Printed Name:		
Please identify yourself (check one):	Agent*: Property Owner:	
	RE ROAD, NORTH YARMOUTH, MAINE 040 07) 829-3705 * FAX: (207) 829-3743	97
REV 12/19		Page 1



TOWN OF NORTH YARMOUTH

PLANNING BOARD

MAJOR SUBDIVISION APPLICATION

(See Article 5 pages 38 through 59 of the North Yarmouth Land Use Ordinance)

NAME OF APPLICANT:	PHONE #:
EMAIL:	ALT. PHONE#:
MAP: LOT:	
AGENT/REPRESENTATIVE (if other):	PHONE #:
EMAIL:	
FULL ADDRESS:	
a separate sheet).2. Plan preparer information if other	
Name:	
Address:	
Phone Number:	Professional Lic. #
Email:	
3. Zoning Classification of the Propert	-Y
Village Center Shoreland Residential Groundwater Protection O	Village ResidentialFarm and Forest Resource ProtectionRoyal River Overlay verlay
•	e proposed use or activity, including but not limited to the type ours of operation, types and amount of traffic to be generated

- 5. Historic Structures: Are there any historic structures or areas of historical importance on the property? ____YES ____NO
- 6. Complete List of all chemicals, pesticides, fuels, nutrients and other potentially toxic or hazardous materials to be used or stored on the premises, and the quantities of these materials (use a separate sheet).
- 7. List of Equipment to be used, parked or stored (use a separate sheet).
- 8. To the best of my knowledge, all the above-stated information, and all prepared submissions in this application are correct.

Signature of Applicant/Owner

___/___/____ Date

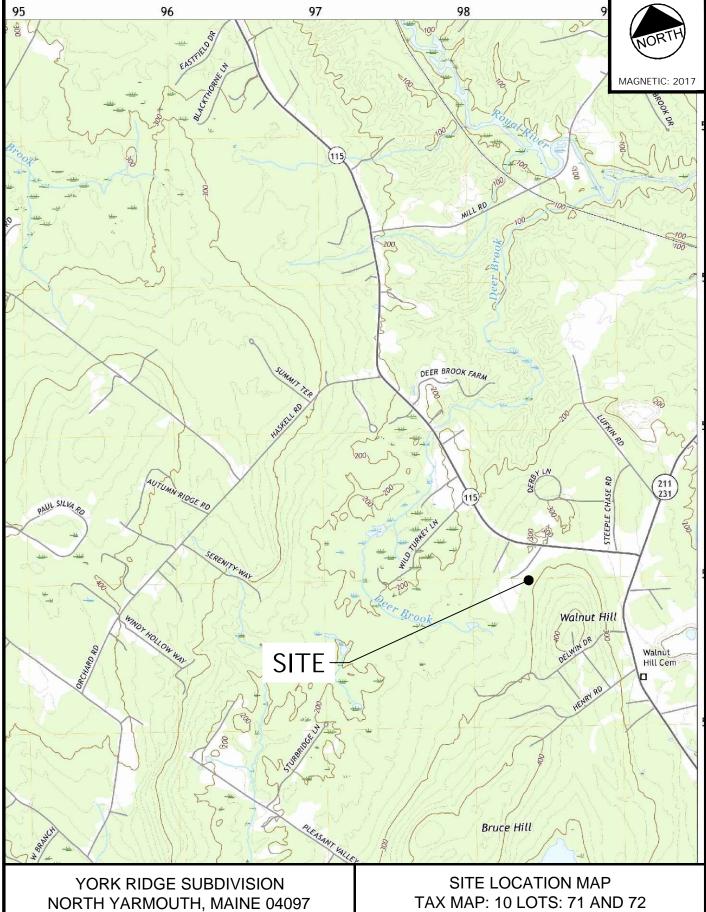
10 VILLAGE SQUARE ROAD, NORTH YARMOUTH, MAINE 04097 PHONE: (207) 829-3705 * FAX: (207) 829-3743 REV 12/19 Page | 1

PROJECT DESCRIPTION

The following package is an application for a Sketch Plan meeting with Town of North Yarmouth Planning Board. The application is for a 13-lot subdivision off Gray Road (Route 115). The site is gradually sloping from east to west and consists of mostly sandy material. The road will bisect the parcel to allow for building lots on either side of the road. The smaller lots will be served by engineered pretreatment wastewater systems. The septic systems for all the lots will be located along the western side of the property but far enough off the property line to keep any plumes from crossing the property line. The lots will be separated by fifty (50) foot strips of open space to provide some stormwater treatment and allow for maintenance access to the septic fields. Private wells will serve each lot. A large fire cistern will be installed to provide fire protection for the subdivision. The proposed stormwater treatment measures include an under drained soil filter (lined) and a meadow buffer behind a level spreader.

To be forthright, our hope is that we can identify any potential design or performance concerns during Sketch Plan review and move onto Preliminary and Final approval. We are aware this is ambitious but considering the simplicity of the proposed subdivision we did not think it was completely unreasonable. We completely understand if this is not preferred and at the very least the robust sketch plan should help make preliminary smoother.

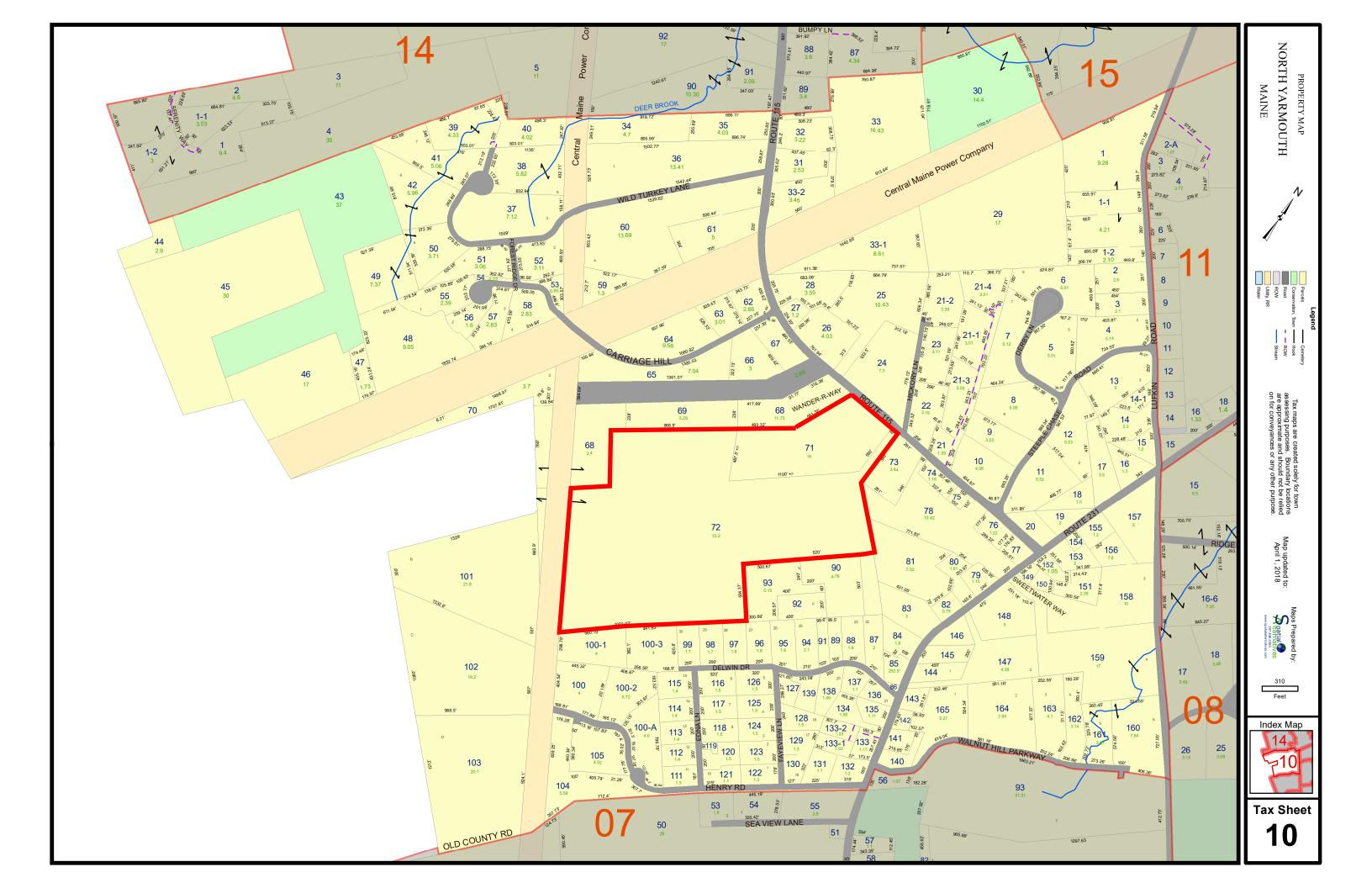




S:\20-049 Grover York Property\Drawings\20-049 USGS.dwg grange engineering 2/23/2021 9:23 AM

Atlantic Resource Consultants Engineering Strategies and Solutions

DRAWN: CB	DATE:	JANUARY 2021	FIGURE
DESIGNED: CB	SCALE	:: N/A	1
CHECKED:	JOB N	O. 20-049	
FILE NAME: 20-049	USGS		





SOIL EVALUATION • WETLAND DELINEATIONS • SOIL SURVEYS • WETLAND PERMITTING

6453

York Subdivision 80 Gray Road North Yarmouth, ME Ben Grover

Soil Narrative Report

DATE:	Soil Profiles observed on January 25, 2021
BASE MAP:	Base plan provided by Atlantic Resource Consultants scale 1 inch equals 100 feet and two foot contours.
GROUND CONTROL:	Soil survey boundaries located by Mark Hampton Associates, Inc. for Class B Soil Survey

Class B-High Intensity Soil Survey (Minimum Standards)

Mapping units of 1 acre or less. Scale of 1"= 200 feet or larger. Up to 25% inclusions in mapping units of which no more than 15% may be dissimilar soils. Ground Control – test pits located by means of compass by chaining, pacing or taping from known control points Base Map –2 foot contour intervals

Provided:

Mapping units of 1/2 acre or less Base map scale of 1"= 100 feet. Up to 25 percent inclusions in mapping units of which no more than 15 percent is dissimilar soils. Baseline information and test pits located by gps equipment with accuracy to less than 3 feet. P.G. Bud topographic survey with one foot contours and ground control provided. P.G. Bud 1931 PORTLAND, ME 04104-1931 * 207-756-2900 * mhampto1@maine.rr.com

The accompanying soil profile descriptions, soil map, and this soil narrative report were done in accordance with the standards adopted by the Maine Association of Professional Soil Scientists, and the Maine Board of Certification of Geologists and Soil Scientists.

<u>-</u>C.S.S. #216, L.S.E. #263<u>//25/2/ Date</u> Mark J. Hampton ATE OF MARK J. HAMP ON #216



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York Subdivision Gray Road North Yarmouth, ME Ben Grover

> **Dixfield** (Aquic Haplorthods)

SETTING

PARENT MATERIAL: LANDFORM: POSITION IN LANDSCAPE: SLOPE GRADIENT RANGES: Derived from compact loamy glacial till. Till plains, hills and ridges. Plains and middle levels. (B) 3-8%,(C) 8-15%, (D) 15-25%

COMPOSITION AND SOIL CHARACTERISTICS

DRAINAGE CLASS:

TYPICAL PROFILE:

Moderately well drained with a perched watertable from 1.0 to 2.0 feet below the surface at some time from October to May or during periods of heavy precipitation.

Surface Layer:

Substratum:

Subsurface Layer: Subsoil Layer: Dark brown, stony sandy loam, 0-7" Brown, sandy loam, 7-20" Olive brown, stony sandy loam 16-31" Olive gray, stony sandy loam, 25-65"

HYDROLOGIC GROUP: SURFACE RUNOFF: PERMEABILITY: DEPTH TO BEDROCK: HAZARD TO FLOODING: Group C Moderately Rapid Moderate in solum, slow in substratum Greater than 65 inches None

INCLUSIONS

(Within Mapping Unit)

CONTRASTING:

Colton, Croghan, Au Gres

USE AND MANAGEMENT



Development: There are few limiting factors for building site development

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ASSOCIATES, INC. MARK HAMPTON

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York Subdivision Gray Road North Yarmouth, ME Ben Grover

> Colton (Typic Haplorthods)

SETTING

PARENT MATERIAL: LANDFORM: POSITION IN LANDSCAPE: SLOPE GRADIENT RANGES: Derived from glacial-fluvial, glacio-lacustrine sand. Outwash plains, deltas, and terraces Sidehill, shoulders and plains

COMPOSITION AND SOIL CHARACTERISTICS

DRAINAGE CLASS:

TYPICAL PROFILE:

(A) 0-3%

Excessively well drained. Depth to seasonal high watertable greater than 4 feet throughout the year.

Surface Layer: Subsurface Layer:

Subsoil Layer:

Substratum:

Grayish brown, sand, 0-8" Reddish brown,] gravelly loamy sand, 8-16" Yellow-brown, stony, very gravelly sand, 16-25" Pale brown stony, gravelly sand, 25-72"

HYDROLOGIC GROUP: SURFACE RUNOFF: PERMEABILITY: DEPTH TO BEDROCK: HAZARD TO FLOODING: Group A Very slow to medium Rapid or very rapid Greater than 65 inches None

INCLUSIONS

CONTRASTING:

(Within Mapping Unit)

Adams, Croghan, Dixfield



USE AND MANAGEMENT

Development:

There are no limiting factors for building site development.

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York Subdivision Gray Road North Yarmouth, ME Ben Grover

> Croghan (Aquic Haplorthods)

SETTING

PARENT MATERIAL: LANDFORM: POSITION IN LANDSCAPE: SLOPE GRADIENT RANGES: Derived from outwash and deltaic sandy deposits. Outwash plains, deltas, and terraces Sidehill, shoulders and plains (A) 0-3%, (B) 3-8%

COMPOSITION AND SOIL CHARACTERISTICS

DRAINAGE CLASS:

Moderately well drained Depth to seasonal high watertable ranges from 1.5 to 2.0 feet below the surface at some time from November to May.

TYPICAL PROFILE:

Surface Layer: Subsurface Layer: Subsoil Layer: Substratum: Dark Brown fine sand, 0-7" Reddish brown sand, 7-16" Brown sand, 16-32" Gray sand, 32-65"

HYDROLOGIC GROUP: SURFACE RUNOFF: PERMEABILITY: DEPTH TO BEDROCK: HAZARD TO FLOODING: Group B Moderately rapid to rapid Rapid or very rapid Greater than 65 inches None

INCLUSIONS (Within Mapping Unit)

CONTRASTING:

Au Gres, Colton, Dixfield



USE AND MANAGEMENT

DEVELOPMENT: The limiting factor for building site development is wetness due to the presence of a high watertable for a portion of the year. Proper foundation drainage or site modification is recommended. P.O. BOX 1931 • PORTLAND, ME 04104-1931 • 207-756-2900 • mhampto1@maine.rr.com



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York Subdivision Gray Road North Yarmouth, ME Ben Grover

Naumburg (Typic Endoaquods)

SETTING

PARENT MATERIAL: LANDFORM: POSITION IN LANDSCAPE: SLOPE GRADIENT RANGES: Derived from outwash and deltaic sandy deposits. Outwash plains, deltas, and terraces Low depressions and plains (A) 0-3%

Somewhat poorly drained. Depth to seasonal high

some time from November to May.

watertable ranges from 0.0 to 1.0 feet below the surface at

COMPOSITION AND SOIL CHARACTERISTICS

DRAINAGE CLASS:

TYPICAL PROFILE:

Surface Layer: Subsurface Layer: Subsoil Layer: Substratum:

Dark Brown loamy sand, 0-7" Reddish brown sand, 8-15" Brown fine sand, 15-32" Gray sand, 42-65"

HYDROLOGIC GROUP: SURFACE RUNOFF: PERMEABILITY: DEPTH TO BEDROCK: HAZARD TO FLOODING: Group C Slow to very slow Rapid or very rapid Greater than 65 inches None

INCLUSIONS (Within Mapping Unit)

CONTRASTING:

Croghan, Au Gres



USE AND MANAGEMENT

DEVELOPMENT: The limiting factor for building site development is wetness due to the presence of a high watertable for a portion of the year. Proper foundation drainage or site modification is recommended. Naumburg may be hydric and may be mapped as wetlands.

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6453

York Subdivision Gray Road North Yarmouth, ME Ben Grover

> Au Gres (Typic Endoaquods)

SETTING

PARENT MATERIAL: LANDFORM: POSITION IN LANDSCAPE: SLOPE GRADIENT RANGES: Derived from outwash and deltaic sandy deposits. Outwash plains, deltas, and terraces Low depressions and plains (A) 0-3%, (B) 3-8%

COMPOSITION AND SOIL CHARACTERISTICS

DRAINAGE CLASS:

TYPICAL PROFILE:

Poorly drained. Depth to seasonal high watertable ranges from 0.0 to 1.0 feet below the surface at some time from November to May.

Surface Layer: Subsurface Layer: Subsoil Layer: Substratum: Black loamy sand, 0-7" Reddish brown sand, 8-15" Brown sand, 15-32" Gray sand, 42-65"

HYDROLOGIC GROUP: SURFACE RUNOFF: PERMEABILITY: DEPTH TO BEDROCK: HAZARD TO FLOODING:

(Within Mapping Unit)

CONTRASTING:

Group C Slow to very slow Rapid or very rapid Greater than 65 inches None

INCLUSIONS

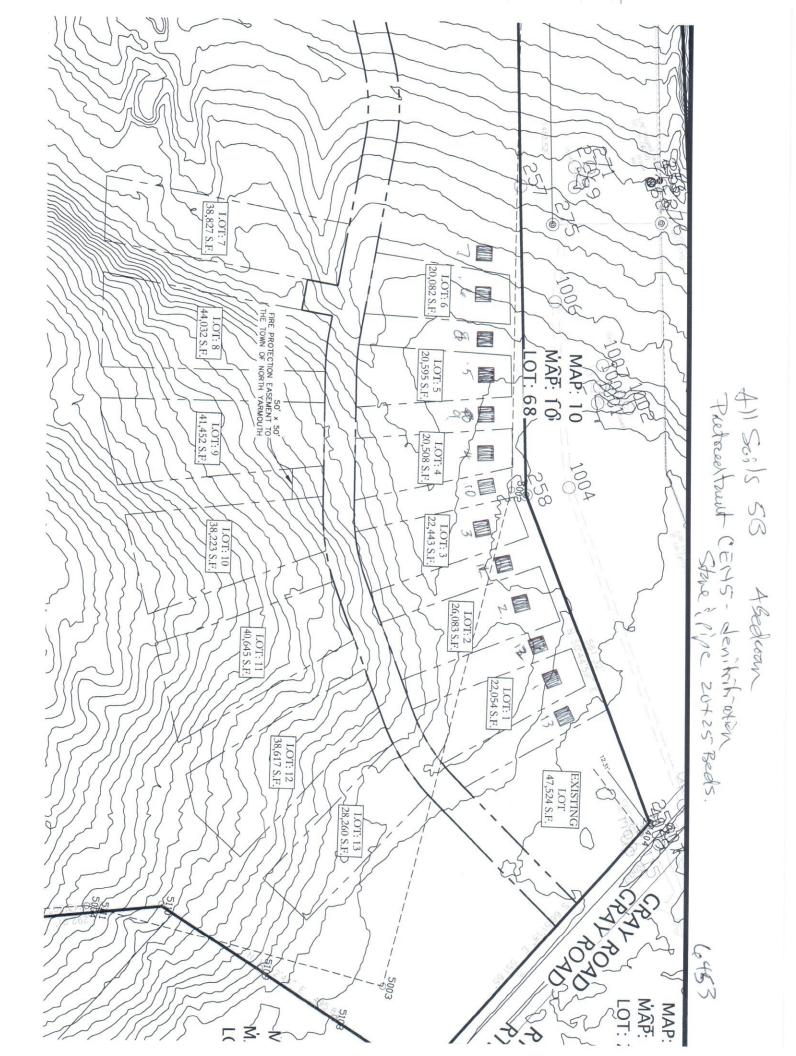
Croghan, Naumburg, Dixfield



USE AND MANAGEMENT

Development: The limiting factor for building site development is wetness due to the presence of a high watertable for a portion of the year. Proper foundation drainage or site modification is recommended.

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STATE OF MAINE DEPARTMENT OF INLAND FISHERIES & WILDLIFE 284 STATE STREET 41 STATE HOUSE STATION AUGUSTA ME 04333-0041



February 10, 2021

Charles Burnham Atlantic Resource Consultants 541 US Route 1, Suite 21 Freeport, ME 04032

RE: Information Request – Subdivision 80 Gray Road Project, North Yarmouth

Dear Charles:

Per your request received on January 06, 2021, we have reviewed current Maine Department of Inland Fisheries and Wildlife (MDIFW) information for known locations of Endangered, Threatened, and Special Concern species; designated Essential and Significant Wildlife Habitats; and inland fisheries habitat concerns within the vicinity of the *Subdivision 80 Gray Road* project in North Yarmouth.

Our Department has not mapped any Essential Habitats or inland fisheries habitats that would be directly affected by your project.

Endangered, Threatened, and Special Concern Species

<u>Bat Species</u> – Of the eight species of bats that occur in Maine, the three *Myotis* species are protected under Maine's Endangered Species Act (MESA) and are afforded special protection under 12 M.R.S §12801 - §12810. The three *Myotis* species include little brown bat (State Endangered), northern longeared bat (State Endangered), and eastern small-footed bat (State Threatened). The five remaining bat species are listed as Special Concern: big brown bat, red bat, hoary bat, silver-haired bat, and tri-colored bat. While a comprehensive statewide inventory for bats has not been completed, based on historical evidence it is likely that several of these species occur within the project area during migration and/or the breeding season. However, our Agency does not anticipate significant impacts to any of the bat species as a result of this project.

Significant Wildlife Habitat

<u>Significant Vernal Pools</u> - At this time MDIFW Significant Wildlife Habitat (SWH) maps indicate no known presence of SWHs subject to protection under the Natural Resources Protection Act (NRPA) within the project area, which include Waterfowl and Wading Bird Habitats, Seabird Nesting Islands, Shorebird Areas, and Significant Vernal Pools. However, a comprehensive statewide inventory for Significant Vernal Pools has not been completed. Therefore, we recommend that surveys for vernal pools be conducted within the project boundary by qualified wetland scientists prior to final project design to determine whether there are Significant Vernal Pools present in the area. These surveys should extend up to 250 feet beyond the anticipated project footprint because of potential performance standard requirements for off-site Significant Vernal Pools, assuming such pools are located on land owned or controlled by the applicant. Once surveys are completed, survey forms should be submitted to our Agency for review well before the submission of any necessary permits. Our Department will need to review and verify any vernal pool data prior to final determination of significance.

Letter to Charles Burnham, Atlantic Resource Consultants Comments RE: Subdivision 80 Gray Road, North Yarmouth February 10, 2021

This consultation review has been conducted specifically for known MDIFW jurisdictional features and should not be interpreted as a comprehensive review for the presence of other regulated features that may occur in this area. Prior to the start of any future site disturbance we recommend additional consultation with the municipality, and other state resource agencies including the Maine Natural Areas Program, Maine Department of Marine Resources, and Maine Department of Environmental Protection in order to avoid unintended protected resource disturbance.

Please feel free to contact my office if you have any questions regarding this information, or if I can be of any further assistance.

Best regards,

Becca Settele Wildlife Biologist



MAINE HISTORIC PRESERVATION COMMISSION 55 CAPITOL STREET 65 STATE HOUSE STATION AUGUSTA, MAINE 04333

JANET T. MILLS GOVERNOR

KIRK F. MOHNEY DIRECTOR

January 13, 2021

Mr. Charlie Burnahm Atlantic Resource Consultants 541 US Route One Suite 21 Freeport, ME 04032

Project:	MHPC# 0012-21	80 Gray Road
		13 Lot Subdivision
Town:	North Yarmouth, ME	

Dear Mr. Burnahm:

In response to your recent request, I have reviewed the information received January 6, 2021 to initiate consultation on the above referenced project.

Based on the information provided, I have concluded that there are no National Register eligible properties on or adjacent to the parcels. In addition, the project area is not considered sensitive for archaeological resources.

Please contact Megan M. Rideout of our staff, at <u>megan.m.rideout@maine.gov</u> or 207-287-2992, if we can be of further assistance in this matter.

Sincerely,

Kult. Mohney

Kirk F. Mohney / State Historic Preservation Officer



STATE OF MAINE DEPARTMENT OF AGRICULTURE, CONSERVATION & FORESTRY

177 STATE HOUSE STATION AUGUSTA, MAINE 04333

Amanda E. Beal Commissioner

JANET T. MILLS GOVERNOR

January 21, 2021

Charlie Burnham Atlantic Resource Consultants 541 US Route One, Suite 21 Freeport, ME 04032

Via email: charlie@arc-maine.com

Re: Rare and exemplary botanical features in proximity to: #20-049, 13-Lot Subdivision, Gray Road, North Yarmouth, Maine

Dear Mr. Burnham:

I have searched the Maine Natural Areas Program's Biological and Conservation Data System files in response to your request received January 6, 2021 for information on the presence of rare or unique botanical features documented from the vicinity of the project in North Yarmouth, Maine. Rare and unique botanical features include the habitat of rare, threatened, or endangered plant species and unique or exemplary natural communities. Our review involves examining maps, manual and computerized records, other sources of information such as scientific articles or published references, and the personal knowledge of staff or cooperating experts.

Our official response covers only botanical features. For authoritative information and official response for zoological features you must make a similar request to the Maine Department of Inland Fisheries and Wildlife, 284 State Street, Augusta, Maine 04333.

According to the information currently in our Biological and Conservation Data System files, there are no rare botanical features documented specifically within the project area. This lack of data may indicate minimal survey efforts rather than confirm the absence of rare botanical features. You may want to have the site inventoried by a qualified field biologist to ensure that no undocumented rare features are inadvertently harmed.

If a field survey of the project area is conducted, please refer to the enclosed supplemental information regarding rare and exemplary botanical features documented to occur in the vicinity of the project site. The list may include information on features that have been known to occur historically in the area as well as recently field-verified information. While historic records have not been documented in several years, they may persist in the area if suitable habitat exists. The enclosed list identifies features with potential to occur in the area, and it should be considered if you choose to conduct field surveys.

This finding is available and appropriate for preparation and review of environmental assessments, but it is not a substitute for on-site surveys. Comprehensive field surveys do not exist for all natural areas in Maine, and in the absence of a specific field investigation, the Maine Natural Areas Program cannot provide a definitive statement on the presence or absence of unusual natural features at this site.

MOLLY DOCHERTY, DIRECTOR MAINE NATURAL AREAS PROGRAM BLOSSOM LANE, DEERING BUILDING



PHONE: (207) 287-804490 WWW.MAINE.GOV/DACF/MNAP Letter to Atlantic Resource Consultants Comments RE: Gray Road Subdivision, North Yarmouth January 21, 2021 Page 2 of 2

The Maine Natural Areas Program (MNAP) is continuously working to achieve a more comprehensive database of exemplary natural features in Maine. We would appreciate the contribution of any information obtained should you decide to do field work. MNAP welcomes coordination with individuals or organizations proposing environmental alteration or conducting environmental assessments. If, however, data provided by MNAP are to be published in any form, the Program should be informed at the outset and credited as the source.

The Maine Natural Areas Program has instituted a fee structure of \$75.00 an hour to recover the actual cost of processing your request for information. You will receive an invoice for \$150.00 for two hours of our services.

Thank you for using MNAP in the environmental review process. Please do not hesitate to contact me if you have further questions about the Natural Areas Program or about rare or unique botanical features on this site.

Sincerely,

Lisa St. Hilaire

Lisa St. Hilaire | Information Manager | Maine Natural Areas Program 207-287-8044 | <u>lisa.st.hilaire@maine.gov</u>

Rare and Exemplary Botanical Features within 4 miles of Project: #20-049, 13-Lot Subdivision, Gray Road, North Yarmouth, Maine

Common Name	State Status	State Rank	Global Rank	Date Last Observed	Occurrence Number	Habitat
Engelmann's Spiker	ush					
	PE	SH	G4G5	1916-08-31	2	Open wetland, not coastal nor rivershore (non-forested, wetland)
Fern-leaved False F	oxglove					
	SC	S3	G5	1902-09-02	13	Dry barrens (partly forested, upland),Hardwood to mixed forest (forest, upland)
	SC	S3	G5	1893-08-28	14	Dry barrens (partly forested, upland),Hardwood to mixed forest (forest, upland)
Great Blue Lobelia						
	PE	SX	G5	1905-09	3	Forested wetland, Non-tidal rivershore (non-forested, seasonally wet)
Hollow Joe-pye Wee	ed					
	SC	S2	G5?	2015-10-15	26	Open wetland, not coastal nor rivershore (non-forested, wetland),Old field/roadside (non-forested, wetland or upland)
Horned Pondweed						
	SC	S2	G5	1913-09-13	9	Tidal wetland (non-forested, wetland)
Marsh Milkwort						
	PE	SH	G5T4	1903-08-18	1	Dry barrens (partly forested, upland), Open wetland, not coastal nor rivershore (non-forested, wetland)
Oak - Hickory Forest	t					
	<null></null>	S1	G4G5	2014-08-21	5	Hardwood to mixed forest (forest, upland)
Ram's-head Lady's-s	slipper					
	E	S1	G3	1935	11	Forested wetland, Hardwood to mixed forest (forest, upland)
Rattlesnake Hawkwe	eed					
	E	S1	G5T4Q	1909-07	1	Dry barrens (partly forested, upland)
Spotted Wintergreer	ı					
	Т	S2	G5	2009-07-26	30	Conifer forest (forest, upland),Hardwood to mixed forest (forest, upland)
Upper Floodplain Ha	ardwood Fore	est				
Maine Natural Areas Pro	ogram		Page 1 of 2			www.maine.gov/dacf/mnap

Rare and Exemplary Botanical Features within 4 miles of Project: #20-049, 13-Lot Subdivision, Gray Road, North Yarmouth, Maine

Common Name	State Status	State Rank	Global Rank	Date Last Observed	Occurrence Number	Habitat
	<null></null>	S3	GNR	2017-05-17	18	Forested wetland
Water-plantain Spea	rwort					
	PE	SH	G4	1903-07-29	2	Open water (non-forested, wetland)
Wild Leek						
	SC	S3	G5	2017-05-17	47	Hardwood to mixed forest (forest, upland), Forested wetland
	SC	S3	G5	2017-05-17	28	Hardwood to mixed forest (forest, upland), Forested wetland

STATE RARITY RANKS

- **S1** Critically imperiled in Maine because of extreme rarity (five or fewer occurrences or very few remaining individuals or acres) or because some aspect of its biology makes it especially vulnerable to extirpation from the State of Maine.
- **S2** Imperiled in Maine because of rarity (6-20 occurrences or few remaining individuals or acres) or because of other factors making it vulnerable to further decline.
- **S3** Rare in Maine (20-100 occurrences).
- S4 Apparently secure in Maine.
- **S5** Demonstrably secure in Maine.
- SU Under consideration for assigning rarity status; more information needed on threats or distribution.
- **SNR** Not yet ranked.
- **SNA** Rank not applicable.
- **S#?** Current occurrence data suggests assigned rank, but lack of survey effort along with amount of potential habitat create uncertainty (e.g. S3?).
- **Note:** State Rarity Ranks are determined by the Maine Natural Areas Program for rare plants and rare and exemplary natural communities and ecosystems. The Maine Department of Inland Fisheries and Wildlife determines State Rarity Ranks for animals.

GLOBAL RARITY RANKS

- G1 Critically imperiled globally because of extreme rarity (five or fewer occurrences or very few remaining individuals or acres) or because some aspect of its biology makes it especially vulnerable to extinction.
- **G2** Globally imperiled because of rarity (6-20 occurrences or few remaining individuals or acres) or because of other factors making it vulnerable to further decline.
- G3 Globally rare (20-100 occurrences).
- G4 Apparently secure globally.
- G5 Demonstrably secure globally.
- **GNR** Not yet ranked.
- Note: Global Ranks are determined by NatureServe.

STATE LEGAL STATUS

- **Note:** State legal status is according to 5 M.R.S.A. § 13076-13079, which mandates the Department of Conservation to produce and biennially update the official list of Maine's **Endangered** and **Threatened** plants. The list is derived by a technical advisory committee of botanists who use data in the Natural Areas Program's database to recommend status changes to the Department of Conservation.
- **E** ENDANGERED; Rare and in danger of being lost from the state in the foreseeable future; or federally listed as Endangered.
- **T** THREATENED; Rare and, with further decline, could become endangered; or federally listed as Threatened.

NON-LEGAL STATUS

- **SC** SPECIAL CONCERN; Rare in Maine, based on available information, but not sufficiently rare to be considered Threatened or Endangered.
- **PE** Potentially Extirpated; Species has not been documented in Maine in past 20 years or loss of last known occurrence has been documented.

Visit our website for more information on rare, threatened, and endangered species! http://www.maine.gov/dacf/mnap

ELEMENT OCCURRENCE RANKS - EO RANKS

Element Occurrence ranks are used to describe the quality of a rare plant population or natural community based on three factors:

- <u>Size</u>: Size of community or population relative to other known examples in Maine. Community or population's viability, capability to maintain itself.
- <u>Condition</u>: For communities, condition includes presence of representative species, maturity of species, and evidence of human-caused disturbance. For plants, factors include species vigor and evidence of human-caused disturbance.
- **Landscape context**: Land uses and/or condition of natural communities surrounding the observed area. Ability of the observed community or population to be protected from effects of adjacent land uses.

These three factors are combined into an overall ranking of the feature of **A**, **B**, **C**, or **D**, where **A** indicates an **excellent** example of the community or population and **D** indicates a **poor** example of the community or population. A rank of **E** indicates that the community or population is **extant** but there is not enough data to assign a quality rank. The Maine Natural Areas Program tracks all occurrences of rare (S1-S3) plants and natural communities as well as A and B ranked common (S4-S5) natural communities.

Note: Element Occurrence Ranks are determined by the Maine Natural Areas Program for rare plants and rare and exemplary natural communities and ecosystems. The Maine Department of Inland Fisheries and Wildlife determines Element Occurrence ranks for animals.

Visit our website for more information on rare, threatened, and endangered species! http://www.maine.gov/dacf/mnap