Section 12: Septic System Soils

MARK HAMPTON ASSOCIATES, INC.

SOIL EVALUATION • WETLAND DELINEATIONS • SOIL SURVEYS • WETLAND PERMITTING

4643

April 27, 2018

Mr. Tom Greer
Walsh Engineering Associates, Inc.
One Karen Drive Suite 2A
Westbrook, ME 04092

Re: Preliminary soil evaluation, Watson Woods Subdivision, Parsonsfield, ME

Dear Tom,

On April 26, 2018, I completed a preliminary soil evaluation on a proposed 8 lot subdivision located on Route 160 Parsonsfield, Maine. The parcel is proposed to be developed into 8 single family house lots. The soil evaluation was conducted in accordance with the Maine Subsurface Wastewater Disposal Rules dated August 2015, as amended. I evaluated two hand excavated soil test pits on each proposed lot. The soils found on the parcel are glacial till soils with a limiting factor at approximately 16 to 20 inches. I was able to find suitable soils and area for a septic system on each proposed lot. And in accordance with the Town of Parsonsfield zoning ordinance, I evaluated two test pits on each lot, one for the primary location and one for the reserve location.

The soils as evaluated meet the minimum requirements of the state rules and as such are suitable for the location of a septic system. The disposal bed for a 3 bedroom home would possibly be a 900 square feet stone bed, 20 feet wide and 45 feet long. In my opinion, there are suitable soils and area on each proposed lot for a septic system. A subsurface wastewater disposal design can be prepared at some future date.

If you have any questions or require additional information, please contact me.

Sincerely,

Mark J. Hampton L.S.E., C.S.S.
Licensed Site Evaluator #263
Certified Soil Scientist #216

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FORM F Rev. 07/11

SOIL PROFILE / CLASSIFICATION INFORMATION

DETAILED DESCRIPTION OF SUBSURFACE CONDITIONS AT PROJECT SITES

Project Name: Watson Woods

Applicant Name: Nathan Wadsworth

Project Location (municipality): Parsonsfield

Exploration Symbol # TP1

☒ Test Pit ☐ Boring ☐ Probe

_____" Organic horizon thickness Ground surface elev. _____

_____" Depth of exploration or to refusal

Depth below mineral soil surface (inches)

	Texture	Consistency	Color	Redox Features
0–10	Sandy loam	Friable	Dark brown	
10–20	Sandy loam	Friable	Brown	
20–30	Sandy loam	Firm	Olive	Common distinct
30–40				
40–50				
50–60				

Soil Details by S.E. ▸▸ S.S. ▸▸

Soil Classification	Slope	Limiting Factor	
3 / C (Profile / Condition)	2 (Percent)	16 " (Depth)	☒ Groundwater ☒ Restrictive Layer ☐ Bedrock

Soil Series/Phase Name: ☐ Hydric ☐ Non-hydric Hydrologic Soil Group

Exploration Symbol # TP2

☒ Test Pit ☐ Boring ☐ Probe

_____" Organic horizon thickness Ground surface elev. _____

_____" Depth of exploration or to refusal

Depth below mineral soil surface (inches)

	Texture	Consistency	Color	Redox Features
0–10	Sandy loam	Friable	Dark brown	
10–20	Sandy loam	Friable	Brown	
20–30	Sandy loam	Firm	Olive	Common distinct
30–40				
40–50				
50–60				

Soil Details by S.E. ▸▸ S.S. ▸▸

Soil Classification	Slope	Limiting Factor	
3 / C (Profile / Condition)	2 (Percent)	16 " (Depth)	☒ Groundwater ☒ Restrictive Layer ☐ Bedrock

Soil Series/Phase Name: ☐ Hydric ☐ Non-hydric Hydrologic Soil Group

Exploration Symbol # TP3

☒ Test Pit ☐ Boring ☐ Probe

_____" Organic horizon thickness Ground surface elev. _____

_____" Depth of exploration or to refusal

Depth below mineral soil surface (inches)

	Texture	Consistency	Color	Redox Features
0–10	Sandy loam	Friable	Dark brown	
10–20	Sandy loam	Friable	Brown	
20–30	Sandy loam	Firm	Olive	Common distinct
30–40				
40–50				
50–60				

Soil Details by S.E. ▸▸ S.S. ▸▸

Soil Classification	Slope	Limiting Factor	
3 / C (Profile / Condition)	2 (Percent)	16 " (Depth)	☒ Groundwater ☒ Restrictive Layer ☐ Bedrock

Soil Series/Phase Name: ☐ Hydric ☐ Non-hydric Hydrologic Soil Group

Exploration Symbol # TP4

☒ Test Pit ☐ Boring ☐ Probe

_____" Organic horizon thickness Ground surface elev. _____

_____" Depth of exploration or to refusal

Depth below mineral soil surface (inches)

	Texture	Consistency	Color	Redox Features
0–10	Sandy loam	Friable	Dark brown	
10–20	Sandy loam	Friable	Brown	
20–30	Sandy loam	Firm	Olive	Common distinct
30–40				
40–50				
50–60				

Soil Details by S.E. ▸▸ S.S. ▸▸

Soil Classification	Slope	Limiting Factor	
3 / C (Profile / Condition)	2 (Percent)	18 " (Depth)	☒ Groundwater ☒ Restrictive Layer ☐ Bedrock

Soil Series/Phase Name: ☐ Hydric ☐ Non-hydric Hydrologic Soil Group

INVESTIGATOR INFORMATION AND SIGNATURE

Signature: Mark J. Hampton Date: 4/27/18

Name Printed: Mark J. Hampton Cert/Lic/Reg. # 263/216

Title: ☒ Licensed Site Evaluator ☒ Certified Soil Scientist ☐ Certified Geologist ☐ Professional Engineer

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FORM F Rev. 07/11

SOIL PROFILE / CLASSIFICATION INFORMATION

DETAILED DESCRIPTION OF SUBSURFACE CONDITIONS AT PROJECT SITES

Project Name: Watson Woods

Applicant Name: Nathan Wadsworth

Project Location (municipality): Parsonsfield

Exploration Symbol # TP5

■ Test Pit ☐ Boring ☐ Probe

_____ " Organic horizon thickness Ground surface elev. _____

_____ " Depth of exploration or to refusal

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Redox Features
0	Sandy loam	Friable	Dark brown	
10	Sandy loam	Friable	Brown	
20	Sandy loam	Firm	None	Common distinct
30				
40				
50				
60				

Soil Details by S.E. ▸▸ S.S. ▸▸

Soil Classification	Slope	Limiting Factor	
3 / C (Profile / Condition)	2 (Percent)	20 " (Depth)	☑ Groundwater ☑ Restrictive Layer ☐ Bedrock

Soil Series/Phase Name: ☐ Hydric ☐ Non-hydric Hydrologic Soil Group

Exploration Symbol # TP6

■ Test Pit ☐ Boring ☐ Probe

_____ " Organic horizon thickness Ground surface elev. _____

_____ " Depth of exploration or to refusal

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Redox Features
0	Sandy loam	Friable	Dark brown	
10	Sandy loam	Friable	Brown	
20	Sandy loam	Firm	None	Common distinct
30				
40				
50				
60				

Soil Details by S.E. ▸▸ S.S. ▸▸

Soil Classification	Slope	Limiting Factor	
3 / C (Profile / Condition)	2 (Percent)	20 " (Depth)	☑ Groundwater ☑ Restrictive Layer ☐ Bedrock

Soil Series/Phase Name: ☐ Hydric ☐ Non-hydric Hydrologic Soil Group

Exploration Symbol # TP7

■ Test Pit ☐ Boring ☐ Probe

_____ " Organic horizon thickness Ground surface elev. _____

_____ " Depth of exploration or to refusal

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Redox Features
0	Sandy loam	Friable	Dark brown	
10	Sandy loam	Friable	Brown	
20	Sandy loam	Firm	None	Common distinct
30				
40				
50				
60				

Soil Details by S.E. ▸▸ S.S. ▸▸

Soil Classification	Slope	Limiting Factor	
3 / C (Profile / Condition)	2 (Percent)	18 " (Depth)	☑ Groundwater ☑ Restrictive Layer ☐ Bedrock

Soil Series/Phase Name: ☐ Hydric ☐ Non-hydric Hydrologic Soil Group

Exploration Symbol # TP8

■ Test Pit ☐ Boring ☐ Probe

_____ " Organic horizon thickness Ground surface elev. _____

_____ " Depth of exploration or to refusal

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Redox Features
0	Sandy loam	Friable	Dark brown	
10	Sandy loam	Friable	Brown	
20	Sandy loam	Firm	None	Common distinct
30				
40				
50				
60				

Soil Details by S.E. ▸▸ S.S. ▸▸

Soil Classification	Slope	Limiting Factor	
3 / C (Profile / Condition)	2 (Percent)	20 " (Depth)	☑ Groundwater ☑ Restrictive Layer ☐ Bedrock

Soil Series/Phase Name: ☐ Hydric ☐ Non-hydric Hydrologic Soil Group

INVESTIGATOR INFORMATION AND SIGNATURE

Signature: Mary J. Hampton Date: 4/27/18

Name Printed: Mary J. Hampton Cert/Lic/Reg. # 263/216

Title ■ Licensed Site Evaluator ☑ Certified Soil Scientist ☐ Certified Geologist ☐ Professional Engineer

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FORM F Rev. 07/11

SOIL PROFILE / CLASSIFICATION INFORMATION

DETAILED DESCRIPTION OF SUBSURFACE CONDITIONS AT PROJECT SITES

Project Name: Watson Woods

Applicant Name: Nathan Wadsworth

Project Location (municipality): Farmington

Exploration Symbol # TP13 ■ Test Pit ☐ Boring ☐ Probe

_____ " Organic horizon thickness Ground surface elev. _____

_____ " Depth of exploration or to refusal

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Redox Features
0	Sandy loam	Friable	Dark Brown	
10	Sandy loam	Friable	Brown	
20	Sandy loam Stony	Firm	Olive	Common & Distinct
30				
40				
50				
60				

Soil Details by S.E. ▸▸ S.S. ▸▸

Soil Classification	Slope	Limiting Factor	
3 (Profile) / C (Condition)	2 (Percent)	18 (Depth) "	■ Groundwater ■ Restrictive Layer ☐ Bedrock

Soil Series/Phase Name: ☐ Hydric ☐ Non-hydric Hydrologic Soil Group

Exploration Symbol # TP14 ■ Test Pit ☐ Boring ☐ Probe

_____ " Organic horizon thickness Ground surface elev. _____

_____ " Depth of exploration or to refusal

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Redox Features
0	Sandy loam	Friable	Dark Brown	
10	Sandy loam	Friable	Brown	
20	Sandy loam Stony	Firm	Olive	Common & Distinct
30				
40				
50				
60				

Soil Details by S.E. ▸▸ S.S. ▸▸

Soil Classification	Slope	Limiting Factor	
3 (Profile) / C (Condition)	2 (Percent)	18 (Depth) "	■ Groundwater ■ Restrictive Layer ☐ Bedrock

Soil Series/Phase Name: ☐ Hydric ☐ Non-hydric Hydrologic Soil Group

Exploration Symbol # TP15 ■ Test Pit ☐ Boring ☐ Probe

_____ " Organic horizon thickness Ground surface elev. _____

_____ " Depth of exploration or to refusal

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Redox Features
0	Sandy loam	Friable	Dark Brown	
10	Sandy loam	Friable	Brown	
20	Stony Sandy loam	Firm	Olive	Common & Distinct
30				
40				
50				
60				

Soil Details by S.E. ▸▸ S.S. ▸▸

Soil Classification	Slope	Limiting Factor	
3 (Profile) / C (Condition)	2 (Percent)	20 (Depth) "	■ Groundwater ■ Restrictive Layer ☐ Bedrock

Soil Series/Phase Name: ☐ Hydric ☐ Non-hydric Hydrologic Soil Group

Exploration Symbol # TP16 ■ Test Pit ☐ Boring ☐ Probe

_____ " Organic horizon thickness Ground surface elev. _____

_____ " Depth of exploration or to refusal

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Redox Features
0	Sandy loam	Friable	Dark Brown	
10	Sandy loam	Friable	Brown	
20	Stony Sandy loam	Firm	Olive	Common & Distinct
30				
40				
50				
60				

Soil Details by S.E. ▸▸ S.S. ▸▸

Soil Classification	Slope	Limiting Factor	
3 (Profile) / C (Condition)	6 (Percent)	20 (Depth) "	■ Groundwater ■ Restrictive Layer ☐ Bedrock

Soil Series/Phase Name: ☐ Hydric ☐ Non-hydric Hydrologic Soil Group

INVESTIGATOR INFORMATION AND SIGNATURE

Signature: Mark J. Hampton Date: 4/27/18

Name Printed: Mark J. Hampton Cert/Lic/Reg. #: 263/216

Title: ■ Licensed Site Evaluator ■ Certified Soil Scientist ☐ Certified Geologist ☐ Professional Engineer

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FORM F Rev. 07/11

SOIL PROFILE / CLASSIFICATION INFORMATION

DETAILED DESCRIPTION OF SUBSURFACE CONDITIONS AT PROJECT SITES

Project Name: Watson Woods

Applicant Name: Nathan Wadsworth

Project Location (municipality): Parsonsfield

Exploration Symbol # TP9

☒ Test Pit ☐ Boring ☐ Probe

_____" Organic horizon thickness Ground surface elev. _____

_____" Depth of exploration or to refusal

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Redox Features
0	Sandy loam	Friable	Dark Brown	
10	Sandy loam	Friable	Brown	
20	Sandy loam	Firm	Olive	Common Distinct
30				
40				
50				
60				

Soil Details by: S.E. ▸▸ S.S. ▸▸

Soil Classification: Profile 3 / Condition C

Slope: Percent 2

Limiting Factor: Depth 18" ☒ Groundwater ☐ Restrictive Layer ☐ Bedrock

Soil Series/Phase Name:

☐ Hydric ☐ Non-hydric

Hydrologic Soil Group

Exploration Symbol # TP10

☒ Test Pit ☐ Boring ☐ Probe

_____" Organic horizon thickness Ground surface elev. _____

_____" Depth of exploration or to refusal

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Redox Features
0	Sandy loam	Friable	Dark Brown	
10	Sandy loam	Friable	Brown	
20	Sandy loam	Firm	Olive	Common Distinct
30				
40				
50				
60				

Soil Details by: S.E. ▸▸ S.S. ▸▸

Soil Classification: Profile 3 / Condition C

Slope: Percent 2

Limiting Factor: Depth 18" ☒ Groundwater ☒ Restrictive Layer ☐ Bedrock

Soil Series/Phase Name:

☐ Hydric ☐ Non-hydric

Hydrologic Soil Group

Exploration Symbol # TP11

☒ Test Pit ☐ Boring ☐ Probe

_____" Organic horizon thickness Ground surface elev. _____

_____" Depth of exploration or to refusal

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Redox Features
0	Sandy loam	Friable	Dark Brown	
10	Sandy loam	Friable	Brown	
20	Sandy loam	Firm	Olive	Common Distinct
30				
40				
50				
60				

Soil Details by: S.E. ▸▸ S.S. ▸▸

Soil Classification: Profile 3 / Condition C

Slope: Percent 4

Limiting Factor: Depth 16" ☒ Groundwater ☐ Restrictive Layer ☐ Bedrock

Soil Series/Phase Name:

☐ Hydric ☐ Non-hydric

Hydrologic Soil Group

Exploration Symbol # TP12

☒ Test Pit ☐ Boring ☐ Probe

_____" Organic horizon thickness Ground surface elev. _____

_____" Depth of exploration or to refusal

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Redox Features
0	Sandy loam	Friable	Dark Brown	
10	Sandy loam	Friable	Brown	
20	Sandy loam	Firm	Olive	Common Distinct
30				
40				
50				
60				

Soil Details by: S.E. ▸▸ S.S. ▸▸

Soil Classification: Profile 3 / Condition C

Slope: Percent 4

Limiting Factor: Depth 16" ☒ Groundwater ☒ Restrictive Layer ☐ Bedrock

Soil Series/Phase Name:

☐ Hydric ☐ Non-hydric

Hydrologic Soil Group

INVESTIGATOR INFORMATION AND SIGNATURE

Signature: Mark J. Hampston

Date: 4/27/18

Name Printed: Mark J. Hampston

Cert/Lic/Reg. # 263/216

Title: ☒ Licensed Site Evaluator ☒ Certified Soil Scientist ☐ Certified Geologist ☐ Professional Engineer

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Section 13: Wetland Delineation

MARK HAMPTON ASSOCIATES, INC.

SOIL EVALUATION • WETLAND DELINEATIONS • SOIL SURVEYS • WETLAND PERMITTING

4643
September 14, 2016

Mr. Tom Greer
Pinkham & Greer Civil Engineers
28 Vannah Avenue
Portland, ME 04103

Re: Wetland Delineation, 58 acre parcel Hussey Road Parsonsfield, ME

Dear Tom,

Today, I completed a wetland delineation on an 58 acre parcel located on Hussey Road Parsonsfield, ME. The wetland delineation was completed in accordance with the 1987 U.S. Army Corps of Engineers Wetland Delineation Manual and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual for the Northcentral and Northeast Regions dated January 2012. These manuals require the presence of three parameters for a wetland to be present, wetland hydrology, hydrophytic vegetation, and hydric soils.

The wetlands I found on the parcel were flagged with yellow flagging. The flagging was labeled in an alphanumeric sequence. The wetland flags were located by gps equipment capable of locating a point to within three feet. The wetland data has been forwarded to your office. The wetlands found onsite are forested wetlands. The wetlands on the parcel are related to drainage moving across the site from southeast to northwest. The wetlands on the parcel located adjacent to the stream will meet the definition of wetlands of special significance as defined by Maine Department of Environmental Protection.

If you have any questions or require additional information, please contact me.

Sincerely,

Mark J. Hampton C.S.S., L.S.E.
Certified Soil Scientist #216
Licensed Site Evaluator #263

P.O. BOX 1931 • PORTLAND, ME 04104-1931 • 207-756-2900 • mhampto1@maine.rr.com

Quality services that meet your deadline

Section 14: Wildlife Habitat Report

JONES
ASSOCIATES
Foresters, Surveyors and
Environmental Consultants

April 23, 2019

Thomas Greer
Walsh Engineering Associates, Inc.
1 Karen Dr #2a
Westbrook, ME 04092

Transmitted via email: tgreer@walsh-eng.com

Dear Mr. Greer,

Per your request I have reviewed on-site wildlife habitat located along North Road and Hussy Road in Parsonsfield, Maine. This letter summarizes this habitat and the degree to which the proposed Watson Woods Subdivision would disrupt on-site habitat. Inevitably wildlife habitat will be lost as a result of any development of due to the removal of natural areas. That being said, it is the goal of good planning to minimize these effects while meeting the goals of the development plan. Even though wildlife habitat will be lost, the proposed development has been carefully thought out in order to minimize and avoid habitat fragmentation and direct impacts.

Provided preliminary information included; on-site wetlands from Watson Woods Subdivision Plan C1.1 Plan (Attachment A), Beginning with Habitat Plant and Animal Habitat Map (Attachment B), IPAC Report (Attachment C), Natural Areas Letter (Attachment D), and a Small Whorled Pogonia Survey letter (Attachment E). This information was provided prior to the site visit in order to get a better understanding of the site. Conclusions from this data indicate that rare botanical features, significant wildlife habitats, and threatened or endangered species are not known to occur on-site.

Preliminary habitat research for this site included investigating state databases of significant wildlife habitats. These included; Deer Wintering Areas (DWA), Inland Waterfowl / Wader Habitat (IWWH), Tidal Waterfowl / Wading Bird Habitat (TWWH), Seabird Nesting Islands (SNI), Shorebird areas, Significant Vernal Pools (SVP). These layers were taken from the state website and projected onto Google Earth Pro (Attachment F). Observations from this data concluded no Significant Wildlife Habitat has been previously mapped within or near the site. The closest mapped significant wildlife habitat mapped is well over a mile away using this data.

First impressions of the site indicated a classic western Maine landscape that was recently harvested. Topography was moderately steep with many ridges. Toward the southern third of the parcel a stream flows in a saddle between two ridges. As the topography becomes more gradual in the saddle hydrology is able to persist which has created wetlands around the stream. Numerous ridges and saddles allow for a range of vegetative species to inhabit the area. On-site forest composition included a mix of hardwood and softwood. Common species found on-site included beech, white pine, spruce, eastern hemlock, and red oak. Observed wildlife included primarily deer and passerines commonly found in the region.

Further investigations revealed two vernal pools. Wood frogs were the indicating species in these vernal pools. These vernal pools have not been assessed for significance by Jones Associates Inc. at this time. The site visit that was conducted was not a complete vernal pool search. Further investigations are necessary to determine presence/absence of additional on-site vernal pools. Although significance of these vernal pools has not been determined, the development is still well beyond the required 250 FT setbacks required by MDEP for significant vernal pools. The approximate locations of these vernal pools with their 250 FT buffers will be shown on the attached Vernal Pool Sketch Plan (Attachment G).

Eight proposed lots totaling +/-19.05 acres have been carved out of a larger parcel +/-55.76-acre parcel. These lots can be viewed on the provided C1.1 Plan. The lots are small when compared to the larger retained parcel. By placing lots close together the remaining undeveloped areas will be larger and less fragmented. As a result, 36.71 contiguous acres will be retained which means open space will be left for wildlife. No development is proposed in the retained lot at this time. The retained lot will help to minimize wildlife impacts and maintain connectivity in the area. By keeping approximately 52% of the overall lot undeveloped wildlife has the option for continued use.

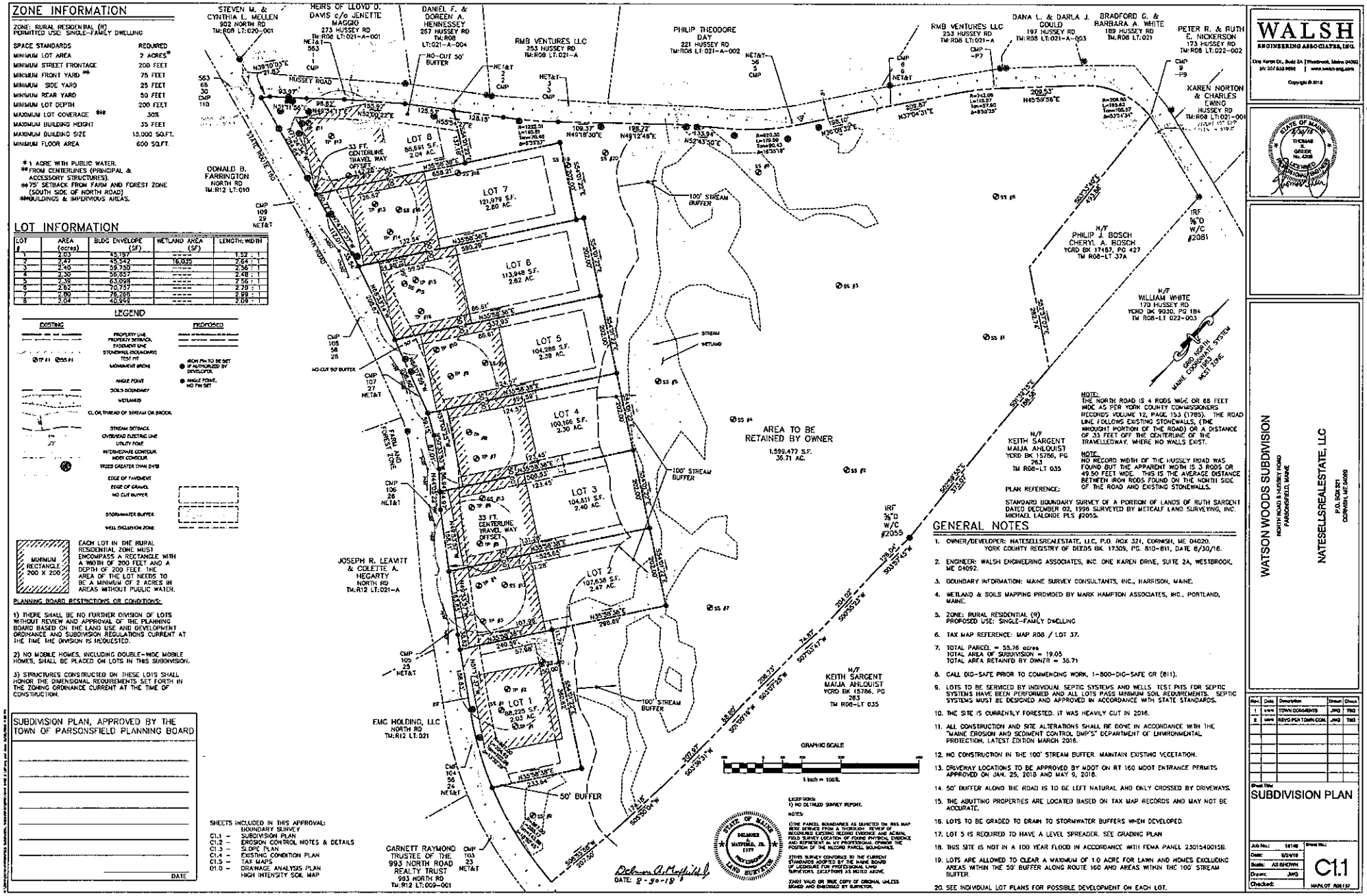
At the landscape level the wildlife impact and footprint of the proposed development is minor. The surrounding area is vast and undeveloped. Connectivity will remain functioning at a high level. Slow developmental progress in the area means fragmentation is of little concern when compared to more developed areas. Additionally, all lots are located along North Road with the exception of the northernmost corner lot (Lot 8). This lot abuts North Road and Hussy Road. Since development of proposed lots are along already existing roadways; no road networks are proposed, further minimizing fragmentation.

Although it is inevitable that some wildlife habitat will be reduced, impacts will be minimal. The proposed development as shown on C1.1 has been carefully thought-out in order to minimize wildlife impacts and fragmentation while still accomplishing development goals. Rare botanical features, significant wildlife habitats, and threatened or endangered species are not known to occur on-site. The proposed development design has considered and included wildlife connectivity. Based on the C1.1 Plan all non-vernal pool wetlands (delineated by others) have been completely avoided. Vernal pools with 250 FT buffers were observed to be wholly on the retained lot and will be completely avoided. However, the site visit that was conducted was not a complete vernal pool search.

Sincerely,

Jason Tome
Wildlife Biologist

ATTACHMENT A



GENERAL NOTES

1. OWNER/DEVELOPER: NATESELLSREALESTATE, LLC, P.O. BOX 321, CORNISH, ME 04020. YORK COUNTY REGISTRY OF DEEDS BK. 17309, PG. 810-811, DATE 6/30/16.
2. ENGINEER: WALSH ENGINEERING ASSOCIATES, INC. ONE KAREN DRIVE, SUITE 2A, WESTBROOK, ME 04092.
3. BOUNDARY INFORMATION: MAINE SURVEY CONSULTANTS, INC., HARRISON, MAINE.
4. WETLAND & SOILS MAPPING PROVIDED BY MARK HAMPTON ASSOCIATES, INC., PORTLAND, MAINE.
5. ZONE: RURAL RESIDENTIAL (R)
   PROPOSED USE: SINGLE-FAMILY DWELLING
6. TAX MAP REFERENCE: MAP R08 / LOT 37.
7. TOTAL PARCEL = 55.76 acres
   TOTAL AREA OF SUBDIVISION = 19.05
   TOTAL AREA RETAINED BY OWNER = 36.71
8. CALL DIG-SAFE PRIOR TO COMMENCING WORK. 1-800-DIG-SAFE OR (811).
9. LOTS TO BE SERVICED BY INDIVIDUAL SEPTIC SYSTEMS AND WELLS. TEST PITS FOR SEPTIC SYSTEMS HAVE BEEN PERFORMED AND ALL LOTS PASS MINIMUM SOIL REQUIREMENTS. SEPTIC SYSTEMS MUST BE DESIGNED AND APPROVED IN ACCORDANCE WITH STATE STANDARDS.
10. THE SITE IS CURRENTLY FORESTED. IT WAS HEAVILY CUT IN 2016.
11. ALL CONSTRUCTION AND SITE ALTERATIONS SHALL BE DONE IN ACCORDANCE WITH THE "MAINE EROSION AND SEDIMENT CONTROL BMP'S" DEPARTMENT OF ENVIRONMENTAL PROTECTION, LATEST EDITION MARCH 2016.
12. NO CONSTRUCTION IN THE 100' STREAM BUFFER. MAINTAIN EXISTING VEGETATION.
13. DRIVEWAY LOCATIONS TO BE APPROVED BY MDOT ON RT 160 MDOT ENTRANCE PERMITS APPROVED ON JAN. 25, 2018 AND MAY 9, 2018.
14. 50' BUFFER ALONG THE ROAD IS TO BE LEFT NATURAL AND ONLY CROSSED BY DRIVEWAYS.
15. THE ABUTTING PROPERTIES ARE LOCATED BASED ON TAX MAP RECORDS AND MAY NOT BE ACCURATE.
16. LOTS TO BE GRADED TO DRAIN TO STORMWATER BUFFERS WHEN DEVELOPED.
17. LOT 5 IS REQUIRED TO HAVE A LEVEL SPREADER. SEE GRADING PLAN
18. THIS SITE IS NOT IN A 100 YEAR FLOOD IN ACCORDANCE WITH FEMA PANEL 2301540015B.
19. LOTS ARE ALLOWED TO CLEAR A MAXIMUM OF 1.0 ACRE FOR LAWN AND HOMES EXCLUDING AREAS WITHIN THE 50' BUFFER ALONG ROUTE 160 AND AREAS WITHIN THE 100' STREAM BUFFER.
20. SEE INDIVIDUAL LOT PLANS FOR POSSIBLE DEVELOPMENT ON EACH LOT.

EXCEPTIONS
1) NO DETAILED SURVEY REPORT.
NOTES:
1) THE PARCEL BOUNDARIES AS DEPICTED ON THIS MAP WERE DERIVED FROM A THOROUGH REVIEW OF RECORDED EXISTING RECORD EVIDENCE AND ACTUAL FIELD SURVEY LOCATION OF FOUND PHYSICAL EVIDENCE AND REPRESENT IN MY PROFESSIONAL OPINION THE POSITION OF THE RECORD PARCEL BOUNDARIES.
2) THIS SURVEY CONFORMS TO THE CURRENT STANDARDS ADOPTED BY THE MAINE BOARD OF LICENSURE FOR PROFESSIONAL LAND SURVEYORS, EXCEPTIONS AS NOTED ABOVE.
3) NOT VALID OR TRUE COPY OF ORIGINAL UNLESS SIGNED AND EMBOSSED BY SURVEYOR.

WALSH
ENGINEERING ASSOCIATES, INC.
One Karen Dr., Suite 2A | Westbrook, Maine 04092
ph: 207.632.9090 | www.walsh-eng.com
Copyright © 2018
STATE OF MAINE THOMAS M. GREER No. 4268 LICENSED PROFESSIONAL ENGINEER

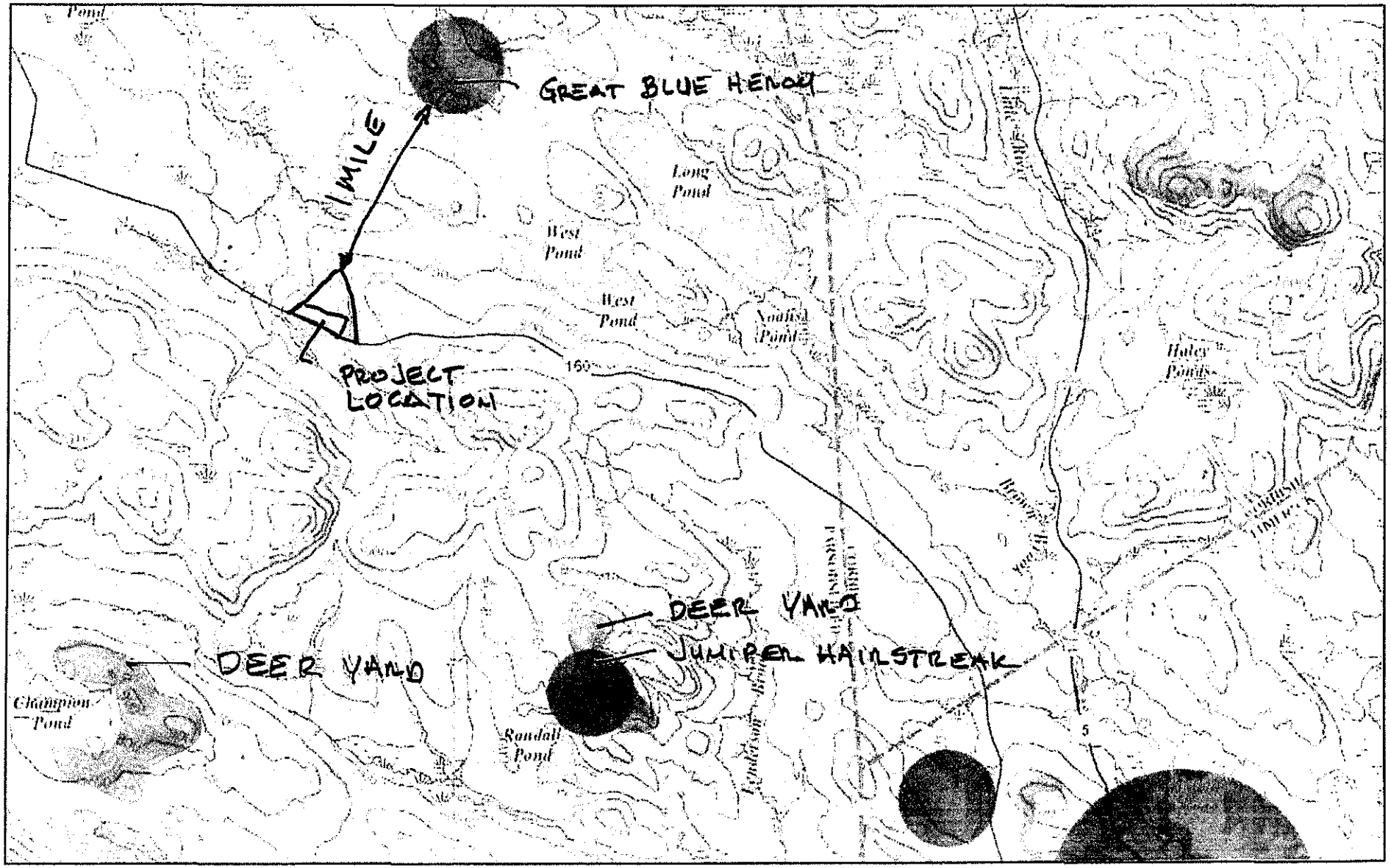
WATSON WOODS SUBDIVISION
NORTH ROAD & HUSSEY ROAD
PARSONSFIELD, MAINE
NATESELLSREALESTATE, LLC
P.O. BOX 321
CORNISH, ME 04020

No.	Date	Description	Drawn	Check
1	9/4/18	TOWN COMMENTS	JWG	TMG
2	10/2/18	REVD PER TOWN COM.	JWG	TMG

Sheet Title: SUBDIVISION PLAN
Job No.: 18148
Date: 8/24/18
Scale: AS SHOWN
Drawn: JWG
Checked: TMG
Sheet No.: C1.1
MAP&LOT R08137

ATTACHMENT B

Plant & Animal Habitat



January 29, 2019

1:72,224

0 0.45 0.9 1.8 mi

0 0.5 1 2 km

Deer Wintering Areas

ETSC Animal Habitat Buffers

This map is intended for planning purposes and should not be used for

ATTACHMENT C

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Maine Ecological Services Field Office
306 HATCHERY ROAD
EAST ORLAND, ME 04431
PHONE: (207)469-7300 FAX: (207)902-1588
URL: www.fws.gov/mainefieldoffice/index.html

Consultation Code: 05E1ME00-2017-SLI-0346 February 24, 2017
Event Code: 05E1ME00-2017-E-00573
Project Name: Parsonsfield Subdivision

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies the threatened, endangered, candidate, and proposed species and designated or proposed critical habitat that may occur within the boundary of your proposed project or may be affected by your proposed project. This species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be
completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC Web site at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 et seq.), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the Endangered Species Consultation Handbook at:
http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

This species list also identifies candidate species under review for listing and those species that the Service considers species of concern. Candidate species have no protection under the Act but are included for consideration because they could be listed prior to completion of your project. Species of concern are those taxa whose conservation status is of concern to the Service (i.e., species previously known as Category 2 candidates), but for which further information is needed.

If a proposed project may affect only candidate species or species of concern, you are not required to prepare a Biological Assessment or biological evaluation or to consult with the Service. However, the Service recommends minimizing effects to these species to prevent future conflicts. Therefore, if early evaluation indicates that a project will affect a candidate species or species of concern, you may wish to request technical assistance from this office to identify appropriate minimization measures.

Please be aware that bald and golden eagles are not protected under the Endangered Species Act but are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 et seq.). Projects affecting these species may require development of an eagle conservation plan: http://www.fws.gov/windenergy/eagle_guidance.html Information on the location of bald eagle nests in Maine can be found on the Maine Field Office Web site:
http://www.fws.gov/mainefieldoffice/Project%20review4.html

Additionally, wind energy projects should follow the wind energy guidelines:
http://www.fws.gov/windenergy/ for minimizing impacts to migratory birds and bats. Projects may require development of an avian and bat protection plan.

Migratory birds are also a Service trust resource. Under the Migratory Bird Treaty Act, construction activities in grassland, wetland, stream, woodland, and other habitats that would result in the take of migratory birds, eggs, young, or active nests should be avoided. Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at:
http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm and at:

http://www.towerkill.com; and at:
http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment

United States Department of Interior
Fish and Wildlife Service

Project name: Parsonsfield Subdivision

Official Species List

Provided by:

Maine Ecological Services Field Office
P. O. BOX A
EAST ORLAND, ME 04431
(207) 469-7300
http://www.fws.gov/mainefieldoffice/index.html

Consultation Code: 05E1ME00-2017-SLI-0346
Event Code: 05E1ME00-2017-E-00573

Project Type: ** OTHER **

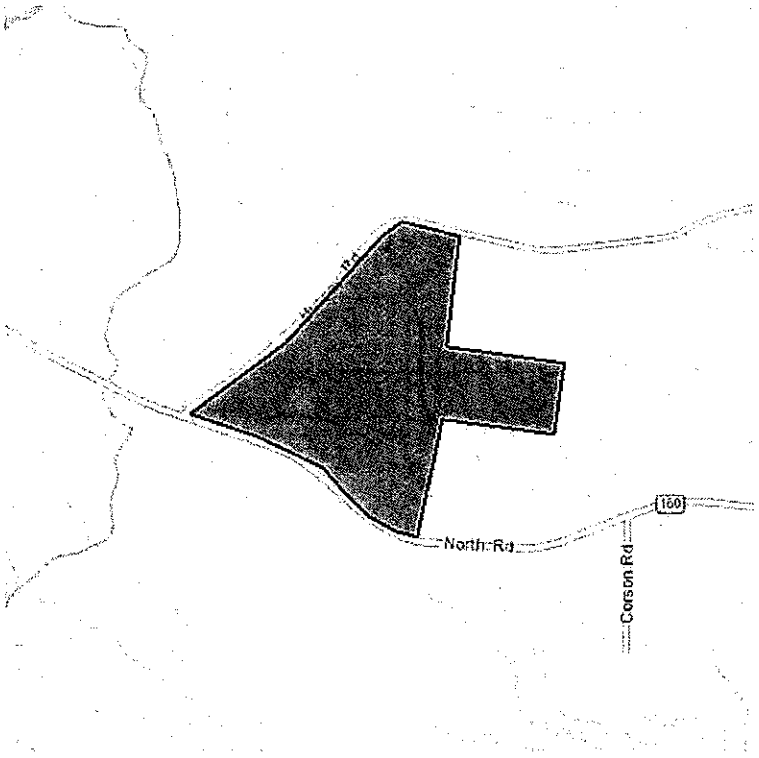
Project Name: Parsonsfield Subdivision
Project Description: Corner of Route 160 and Hussey Rd, Parsonsfield, ME

Please Note: The FWS office may have modified the Project Name and/or Project Description, so it may be different from what was submitted in your previous request. If the Consultation Code matches, the FWS considers this to be the same project. Contact the office in the 'Provided by' section of your previous Official Species list if you have any questions or concerns.

United States Department of Interior
Fish and Wildlife Service

Project name: Parsonsfield Subdivision

Project Location Map:



Project Coordinates: MULTIPOLYGON (((-70.9002470970154 43.7486066586007, -70.89692115783693 43.74829664560014, -70.89662075042726 43.7498466945462, -70.90009689331056 43.75020320012573, -70.89973211288454 43.75254368402187, -70.90138435363771 43.752884674036565, -70.90202808380128 43.752574683194396, -70.90486049652101 43.750280701057676, -70.90771436691286 43.748746163927116, -70.9057402610779 43.74825014351157, -70.90378761291505 43.74759911047809, -70.90318679809572 43.74707207855039, -70.90243577957155 43.74654504198231, -70.90164184570314 43.746219517077925, -70.90095520019533 43.74609550712489, -70.9002470970154 43.7486066586007)))

Project Counties: York, ME

United States Department of Interior
Fish and Wildlife Service

Project name: Parsonsfield Subdivision

Endangered Species Act Species List

There are a total of 2 threatened or endangered species on your species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Critical habitats listed under the **Has Critical Habitat** column may or may not lie within your project area. See the **Critical habitats within your project area** section further below for critical habitat that lies within your project. Please contact the designated FWS office if you have questions.

Flowering Plants	**Status**	**Has Critical Habitat**	**Condition(s)**
Small Whorled pogonia *(Isotria medeoloides)* Population: Wherever found	Threatened		
Mammals			
Northern long-eared Bat *(Myotis septentrionalis)* Population: Wherever found	Threatened		

United States Department of Interior
Fish and Wildlife Service

Project name: Parsonsfield Subdivision

Critical habitats that lie within your project area

There are no critical habitats within your project area.

ATTACHMENT D

STATE OF MAINE
DEPARTMENT OF AGRICULTURE, CONSERVATION & FORESTRY
93 STATE HOUSE STATION
AUGUSTA, MAINE 04333

PAUL R. LEPAGE
GOVERNOR

WALTER E. WHITCOMB
COMMISSIONER

August 21, 2017

Thomas Greer
Pinkham & Greer Civil Engineers
28 Vannah Ave.
Portland, ME 04103

Via email: pgce@pinkhamandgreer.com

Re: Rare and exemplary botanical features in proximity to: #16149, Watson Woods Residential Subdivision, Parsonsfield, Maine

Dear Mr. Greer:

I have searched the Natural Areas Program's Biological and Conservation Data System files in response to your request received August 21, 2017 for information on the presence of rare or unique botanical features documented from the vicinity of the project in Parsonsfield, 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

maine DEPARTMENT OF Agriculture Conservation & Forestry

PHONE: (207) 287-8044
FAX: (207) 287-8040
WWW.MAINE.GOV/DACF/MNAP

The Natural Areas Program 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. The Natural Areas Program welcomes coordination with individuals or organizations proposing environmental alteration, or conducting environmental assessments. If, however, data provided by the Natural Areas Program are to be published in any form, the Program should be informed at the outset and credited as the source.

The 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 the Natural Areas Program 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,

Kristen Puryear | Ecologist | Maine Natural Areas Program
207-287-8043 | kristen.puryear@maine.gov

Rare and Exemplary Botanical Features within 4 miles of Project: #16149, Watson Woods Residential Subdivision, Parsonsfield, Maine

Common Name	State Status	State Rank	Global Rank	Date Last Observed	Occurrence Number	Habitat
American Ginseng						
	E	S3	G3G4	2000-09-16	30	Hardwood to mixed forest (forest, upland)
	E	S3	G3G4	2001-08-07	23	Hardwood to mixed forest (forest, upland)
	E	S3	G3G4	1930	14	Hardwood to mixed forest (forest, upland)
	E	S3	G3G4	2002-09-01	26	Hardwood to mixed forest (forest, upland)
Autumn Coral-root						
	E	S1	G5	2013-09-15	4	Hardwood to mixed forest (forest, upland)
Blunt-lobed Woodsia						
	T	S1	G5	2006-07-08	7	Rocky summits and outcrops (non-forested, upland),Hardwood to mixed forest (forest, upland)
	T	S1	G5	2000-06-28	9	Rocky summits and outcrops (non-forested, upland),Hardwood to mixed forest (forest, upland)
Bottlebrush Grass						
	SC	S3	G5	2010-07-18	1	Hardwood to mixed forest (forest, upland)
	SC	S3	G5	2001-08-07	15	Hardwood to mixed forest (forest, upland)
	SC	S3	G5	2000-06-28	18	Hardwood to mixed forest (forest, upland)
	SC	S3	G5	2010-06-30	14	Hardwood to mixed forest (forest, upland)
Broad Beech Fern						
	SC	S2	G5	2001-08-07	29	Hardwood to mixed forest (forest, upland)
Creeping Spike-moss						
	E	S2	G5	2014-06-12	7	Open wetland, not coastal nor rivershore (non-forested, wetland),Old field/roadside (non-forested, wetland or upland)
Douglas' Knotweed						
	SC	S2	G5	2001-08-07	6	Rocky summits and outcrops (non-forested, upland)
	SC	S2	G5	2000-06-28	9	Rocky summits and outcrops (non-forested, upland)

Rare and Exemplary Botanical Features within 4 miles of
Project: #16149, Watson Woods Residential Subdivision, Parsonsfield, Maine

Common Name	State Status	State Rank	Global Rank	Date Last Observed	Occurrence Number	Habitat
	SC	S2	G5	2002-09-06	8	Rocky summits and outcrops (non-forested, upland)
	SC	S2	G5	2010-06-30	2	Rocky summits and outcrops (non-forested, upland)
Dry Land Sedge						
	SC	S2	G5	2000-05-21	7	Old field/roadside (non-forested, wetland or upland)
Early Crowfoot						
	T	S1	G5	2001-05-09	2	Rocky summits and outcrops (non-forested, upland),Hardwood to mixed forest (forest, upland)
Ebony Spleenwort						
	SC	S2	G5	2000-06-28	18	Rocky summits and outcrops (non-forested, upland),Hardwood to mixed forest (forest, upland)
	SC	S2	G5	2002-09-01	24	Rocky summits and outcrops (non-forested, upland),Hardwood to mixed forest (forest, upland)
	SC	S2	G5	2000-07-21	16	Rocky summits and outcrops (non-forested, upland),Hardwood to mixed forest (forest, upland)
Enriched Northern Hardwoods Forest						
	<null>	S3	GNR	2001-08-07	1	Hardwood to mixed forest (forest, upland)
Fern-leaved False Foxglove						
	SC	S3	G5	2010-06-30	17	Dry barrens (partly forested, upland),Hardwood to mixed forest (forest, upland)
	SC	S3	G5	2010-06-07	16	Dry barrens (partly forested, upland),Hardwood to mixed forest (forest, upland)
Fogg's Goosefoot						
	T	S1	G3Q	2010-06-30	1	<null>
Hairy Wood Brome-grass						
	SC	S2	G5	2010-06-30	9	Hardwood to mixed forest (forest, upland),Non-tidal rivershore (non-forested, seasonally wet)
	SC	S2	G5	2010-07-18	8	Hardwood to mixed forest (forest, upland),Non-tidal rivershore (non-forested, seasonally wet)

Rare and Exemplary Botanical Features within 4 miles of Project: #16149, Watson Woods Residential Subdivision, Parsonsfield, Maine

Common Name	State Status	State Rank	Global Rank	Date Last Observed	Occurrence Number	Habitat
	SC	S2	G5	2000-06-28	10	Hardwood to mixed forest (forest, upland),Non-tidal rivershore (non-forested, seasonally wet)
Hemlock Forest						
	<null>	S4	G4G5	2001-08-07	18	Conifer forest (forest, upland),Hardwood to mixed forest (forest, upland)
Missouri Rockcress						
	T	S1	G5?Q	2000-06-28	6	Rocky summits and outcrops (non-forested, upland),Hardwood to mixed forest (forest, upland)
	T	S1	G5?Q	2000-05-26	4	Rocky summits and outcrops (non-forested, upland),Hardwood to mixed forest (forest, upland)
	T	S1	G5?Q	2010-06-30	3	Rocky summits and outcrops (non-forested, upland),Hardwood to mixed forest (forest, upland)
Nodding Pogonia						
	T	S2	G3G4	2013-08-18	7	Hardwood to mixed forest (forest, upland)
Oak - Ash Woodland						
	<null>	S3	G3G5	2000-05-26	4	Rocky summits and outcrops (non-forested, upland),Dry barrens (partly forested, upland)
	<null>	S3	G3G5	2001-08-07	6	Rocky summits and outcrops (non-forested, upland),Dry barrens (partly forested, upland)
	<null>	S3	G3G5	2000-06-28	13	Rocky summits and outcrops (non-forested, upland),Dry barrens (partly forested, upland)
	<null>	S3	G3G5	2010-07-01	2	Rocky summits and outcrops (non-forested, upland),Dry barrens (partly forested, upland)
Pocket Swamp						
	<null>	S2	G5	2000-05-05	17	Forested wetland,Hardwood to mixed forest (forest, upland)
Shining Ladies'-tresses						
	T	S1	G5	1941	15	Non-tidal rivershore (non-forested, seasonally wet),Open wetland, not coastal nor rivershore (non-forested, wetland)
Small Whorled Pogonia						

Rare and Exemplary Botanical Features within 4 miles of
Project: #16149, Watson Woods Residential Subdivision, Parsonsfield, Maine

Common Name	State Status	State Rank	Global Rank	Date Last Observed	Occurrence Number	Habitat
	E	S2	G2	1987-07-15	14	Hardwood to mixed forest (forest, upland)
	E	S2	G2	1986-08-22	23	Hardwood to mixed forest (forest, upland)
	E	S2	G2	2015-06-17	21	Hardwood to mixed forest (forest, upland)
	E	S2	G2	2013-06-13	27	Hardwood to mixed forest (forest, upland)
	E	S2	G2	2001-07-18	29	Hardwood to mixed forest (forest, upland)
	E	S2	G2	2013-06-13	33	Hardwood to mixed forest (forest, upland)
Smooth Rockcress						
	T	S1	G5	2000-06-28	6	Rocky summits and outcrops (non-forested, upland),Hardwood to mixed forest (forest, upland)
Smooth Winterberry Holly						
	SC	S3	G5	2008-10-02	17	Forested wetland
Spotted Wintergreen						
	E	S2	G5	2002-08-22	19	Conifer forest (forest, upland),Hardwood to mixed forest (forest, upland)
	E	S2	G5	1987-07-15	5	Conifer forest (forest, upland),Hardwood to mixed forest (forest, upland)
Summer Grape						
	T	S2	G5T5	2000-06-28	5	Hardwood to mixed forest (forest, upland),Rocky summits and outcrops (non-forested, upland)
Tall Sedge Fen						
	<null>	S4	G4G5	2009-07-16	5	Open wetland, not coastal nor rivershore (non-forested, wetland),Coastal non-tidal wetland (non-forested, wetland)
Three-seeded Mercury						
	PE	SH	G5	1902-08	1	Dry barrens (partly forested, upland),Old field/roadside (non-forested, wetland or upland)

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:

- **Size**: Size of community or population relative to other known examples in Maine. Community or population's viability, capability to maintain itself.
- **Condition**: 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

ATTACHMENT E

STATE OF MAINE
DEPARTMENT OF AGRICULTURE, CONSERVATION & FORESTRY
93 STATE HOUSE STATION
AUGUSTA, MAINE 04333

PAUL R. LEPAGE
GOVERNOR

WALTER E. WHITCOMB
COMMISSIONER

Tom Greer
Pinkham and Greer, Civil Engineers

September 29, 2017

Re: Watson Woods – Small Whorled Pogonia Survey

Dear Mr. Greer:

As per your request, on September 28, 2017, Don Cameron, staff botanist with the Maine Natural Areas Program, surveyed the proposed Watson Woods subdivision site in the Town of Parsonsfield for Small Whorled Pogonia (*Isotria medeoloides*). Don is a recognized expert on the identification and ecology of this rare species.

The site is a 57 acre parcel located northeast of the intersection Rt. 160 and Hussey Road in the central part of the town. The site has been somewhat recently harvested for timber, with harvesting being heaviest in the northern portion where there was a large multi-acre clearing, and less intensive in other areas where some smaller patches of trees remained. The areas which had the highest potential for small whorled pogonia and received the most detailed survey were 1) the broad drainage that crossed the parcel from ~ the south corner toward the northwest boundary and 2) the parcel margin along the road frontage on Hussey Road. These areas still supported sufficient tree cover to provide the degree of shade that would be required by the rare small whorled pogonia as well as other common forest herbs. Other scattered patches within the harvested matrix also provided shade. These areas were mostly 50 – 100 feet in diameter and were also surveyed as part of the traverse through the site.

No small whorled pogonia was observed during the survey. See Map 1 on page 2 for GPS data showing survey effort. Areas with few or no GPS points were areas were no habitat was present that could have supported small whorled pogonia, i.e., the aforementioned large cleared section on the north side of the site.

Please let me know if you have any questions. Note that an invoice for services rendered will be sent under separate cover.

Sincerely,

Don Cameron, Botanist/Ecologist
Maine Natural Areas Program
#93 State House Station
Augusta, ME 04333-0093
(phone - 207-287-8041 / fax - 207-287-8040)

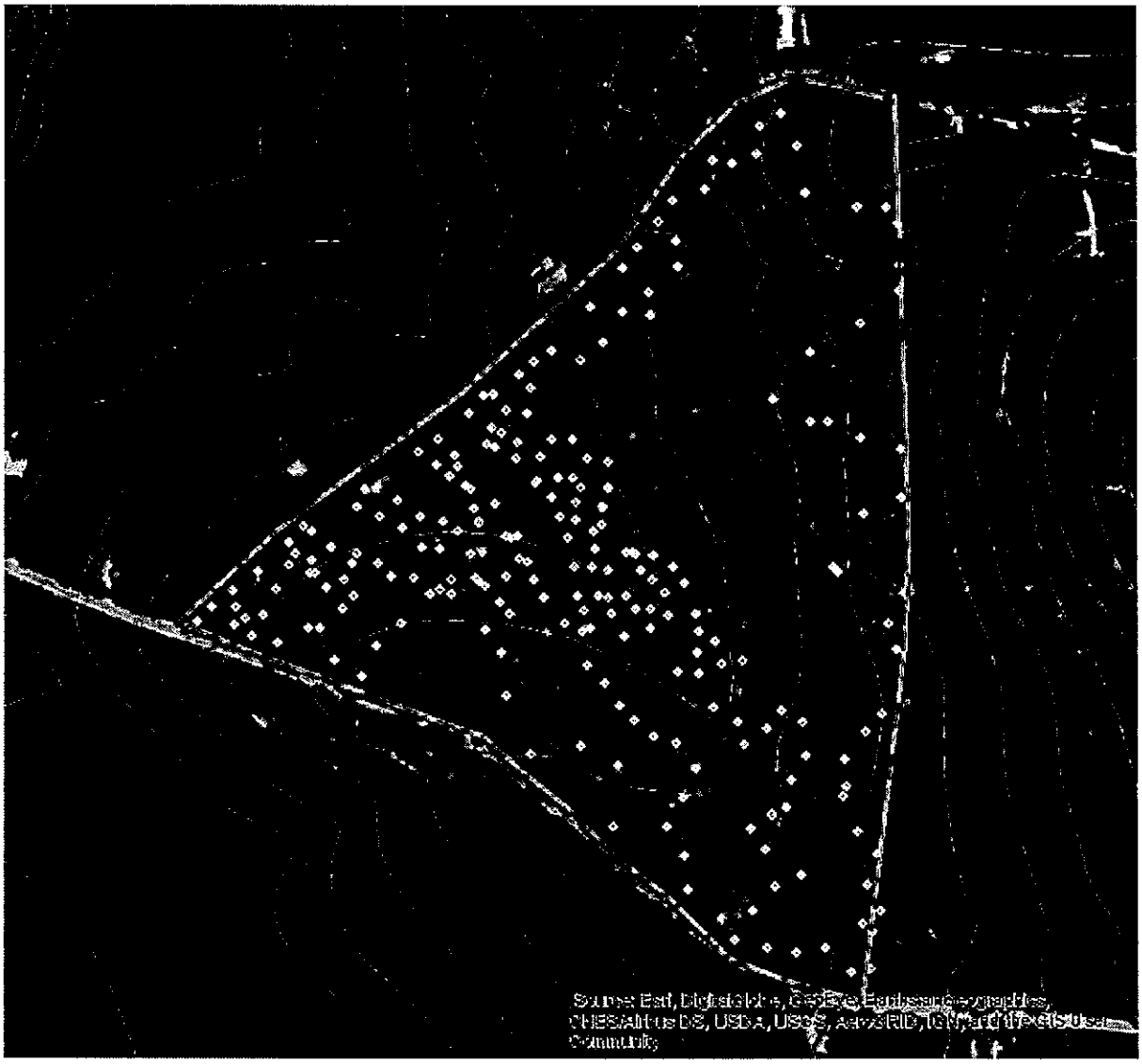
MOLLY DOCHERTY, DIRECTOR
MAINE NATURAL AREAS PROGRAM

maine DEPARTMENT OF Agriculture Conservation & Forestry

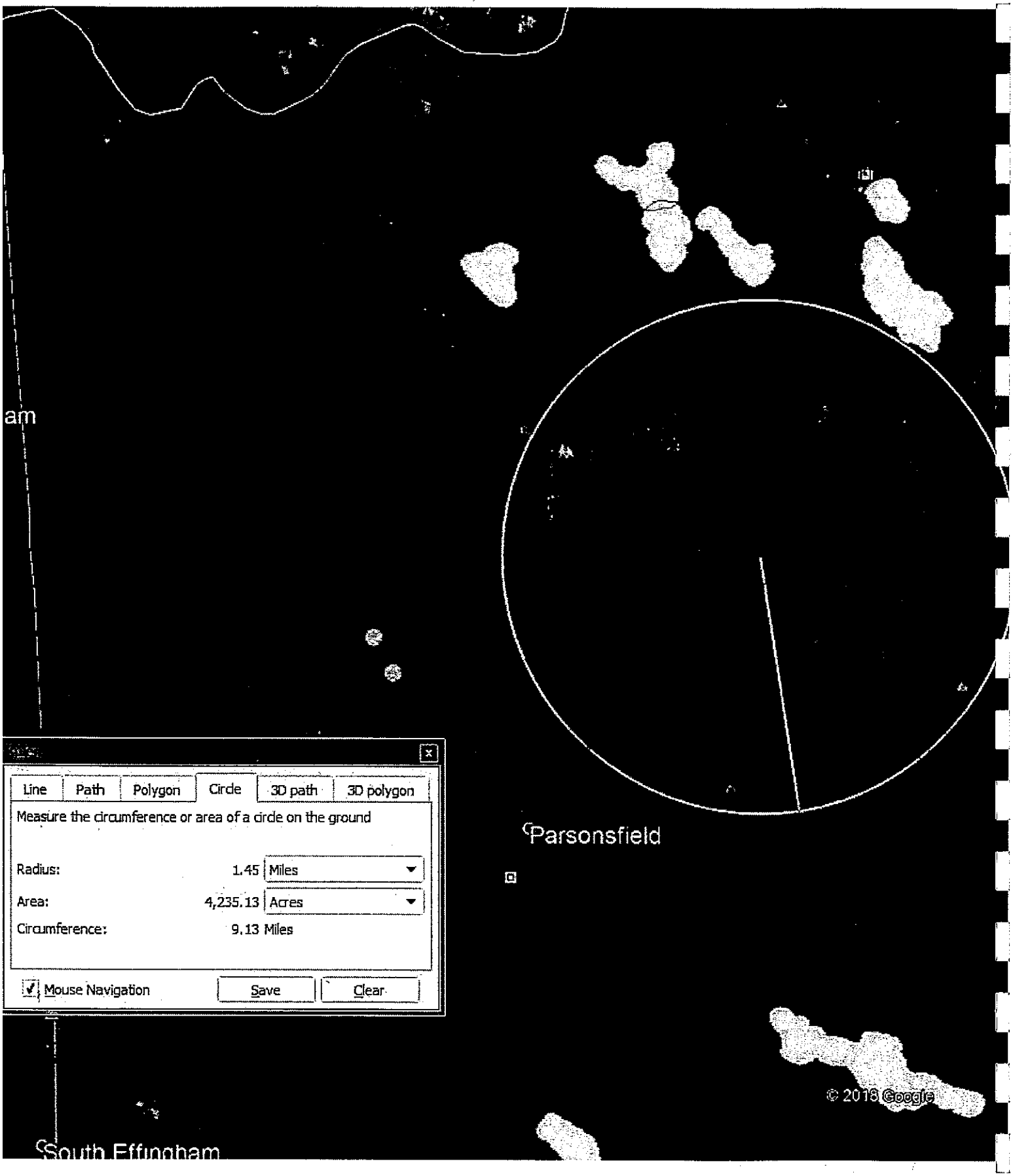
PHONE: (207) 287-8044
FAX: (207) 287-8040
WWW.MAINE.GOV/DACF/MNAP

Map 1 – Survey Area – Watson Woods

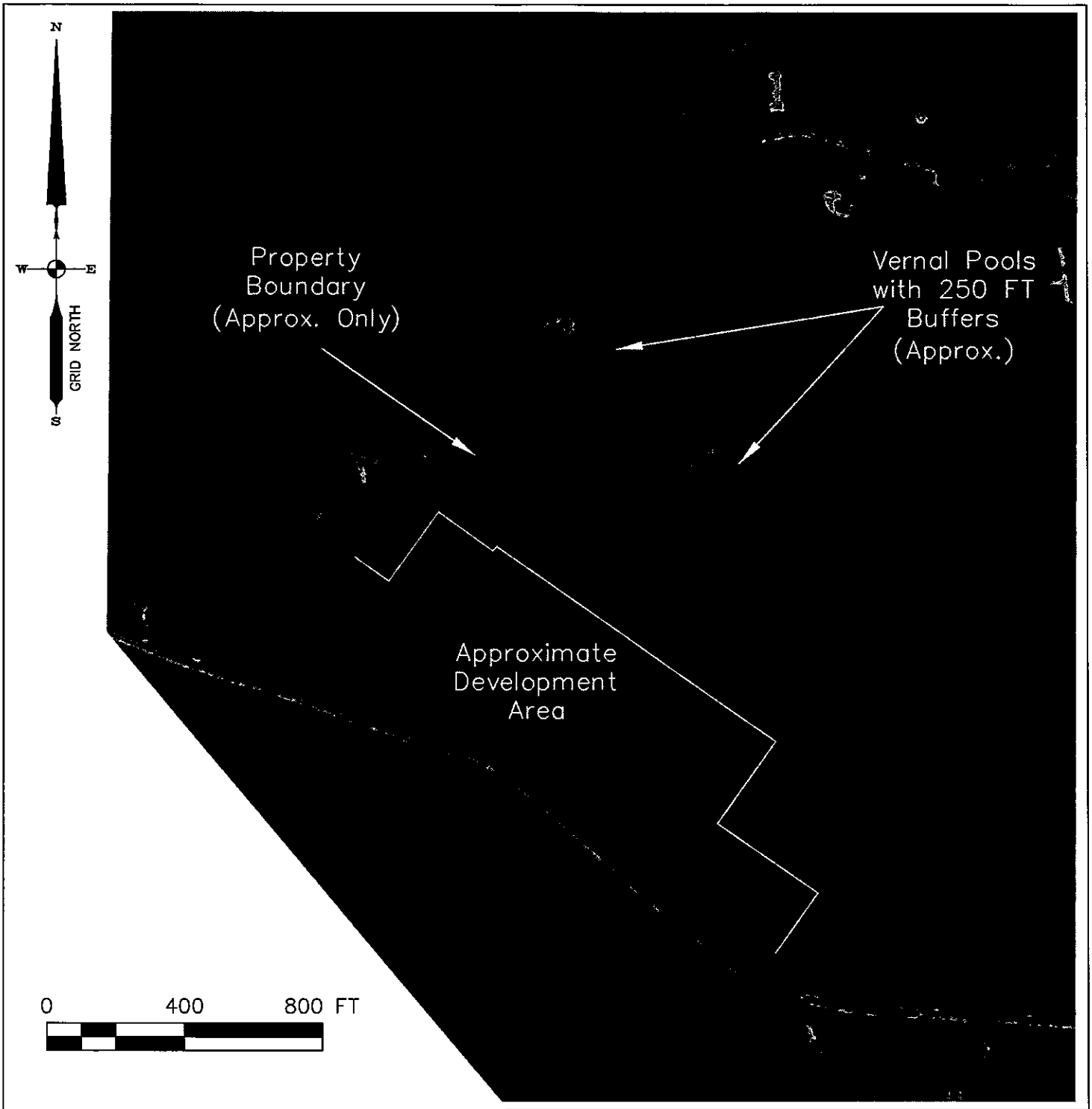
Yellow dots are GPS waypoints representing survey effort from the survey performed on 9/28/2017. Areas with the highest concentration of survey effort correspond to areas at the site where there was sufficient shade to potentially support small whorled pogonia. Note that areal imagery used here is not representative of current site conditions.



ATTACHMENT F


am
Parsonsfield
South Effingham
© 2018 Google
Line
Path
Polygon
Circle
3D path
3D polygon
Measure the circumference or area of a circle on the ground
Radius: 1.45 Miles
Area: 4,235.13 Acres
Circumference: 9.13 Miles
Mouse Navigation
Save
Clear

ATTACHMENT G



VERNAL POOL SKETCH PLAN
Watson Woods Subdivision
North Road & Hussey Road
Parsonsfield, Maine

NOTES:

1. IMAGERY WAS OBTAINED FROM GOOGLE EARTH.
2. PARCEL BOUNDARY AND DEVELOPMENT AREA BOUNDARY BASED ON DIGITIZED WATSON WOODS SUBDIVISION C1.1 PDF PLAN. BOUNDARIES ARE APPROXIMATE ONLY.
3. VERNAL POOL LOCATIONS BASED ON IPHONE GPS AND ARE APPROXIMATE ONLY. VERNAL POOL LOCATIONS DO NOT REPRESENT A FULL VERNAL POOL SEARCH OF THE PROPERTY. VERNAL POOLS HAVE NOT BEEN CONFIRMED TO BE SIGNIFICANT. BUFFERS ARE FOR REPRESENTATION PURPOSES ONLY.

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PLAN DATE: April 19, 2019

FIELD WORK DATE: APRIL 2019

SCALE: 1"=400'

PROJ. #: 19-019PA