

## **Town of Windham**

For:

# Sketch Plan Application for Site Plan and Subdivision Review Franklin Drive Multi-family Development Windham, ME 04062

Applicant:

New Gen Estates, LLC 50 Maine Mall Road South Portland, ME 04074

Prepared by:

Sebago Technics, Inc.
75 John Roberts Road, Suite 4A
South Portland, Maine 04106

**May 2025** 

230411-01



## **Table of Contents**

# Cover Letter Application Form & Submission Checklist

**Section 1 Description and Constraints** 

Section 2 Site Location Map

Section 3 Right, Title, or Interest

Section 4 Soil Report and Map



May 19, 2025 230411-01

Steve Puleo, Planning Director Town of Windham 8 School Road Windham, Maine 04062

sjpuleo@windhammaine.us

<u>Sketch Plan for Site Plan Review</u>
<u>Franklin Drive Multi-family Development - New Gen Estates, LLC</u>
Tax Map/Lot: 18/26-2

Dear Steve:

On behalf of New Gen Estates, LLC, Sebago Technics, Inc. is pleased to submit the enclosed Sketch Plan Application for Site Plan Review, concept plan, and associated exhibits for a proposed multi-family development located off Franklin Drive. The proposed development is located just east of the terminus of Franklin Drive on lot 2 of the recently formed Franklin Drive Subdivision on the parcel identified on the Town of Windham Tax Map 18 as Lot 26-2. The project site is approximately 7.88 acres in size and consists of mainly undeveloped area with an existing trail through the property.

The subject parcel is located in Windham's Commercial 1 (C-1) zoning district. Access to the development will come from the previously permitted right-of-way extension from Franklin Drive. The development will feature two buildings, each having an approximately 28,000 square foot footprint and containing 153 units. The buildings will feature a mixture of 1-bedroom and 2-bedroom units across 5 floors. Additional improvements across the lot will include associated parking, landscaping, and stormwater infrastructure. The proposed parking area will include 390 spaces, including 12 ADA spaces. The development has been designed to meet the standards of the Commercial 1 (C-1) zoning district and individual performance standards applicable to the development.

As part of the Franklin Drive Subdivision, a request was made to the Town to release an existing access easement over the property from Franklin Drive to the natural area to the north of the property. As part of this subdivision, a new access easement and trail from the Franklin Drive Extension will be provided as determined upon coordination with the town planning department and town staff. In addition, the development will be designed to meet the standards of the Commercial District 1 (C-1) and the individual performance standards of proposed uses including buffers.



We look forward to discussing this project with the Town Planning Board and Staff at the upcoming meetings. Please feel free to contact us if additional information is needed. Thank you for your time and consideration related to this project.

Sincerely,

SEBAGO TECHNICS, INC.

Robert A. McSorley, NH/MA/ME/VT P.E. Senior Project Manager

RAM/jtg Enc.



Town of Windham Planning Department: 8 School Road Windham, Maine 04062 Tel: (207) 894-5960 ext. 2 Fax: (207) 892-1916 www.windhammaine.us

#### SKETCH PLAN - MAJOR SITE PLAN REVIEW APPLICATION AMOUNT PAID: **APPLICATION FEE: /** \$200.00 FEES FOR SKETCH **PLAN REVIEW REVIEW ESCROW: ₩** \$400.00 DATE: Office Use: Office Stamp: 18 C-1 26-2-A/ Lot 2 Zoning **Total Land** 314,516 Lot(s)# Parcel ID Map(s) # District(s) Area SF **PROPERTY** Y N Est. Building SF: 56.000 No Building: Est. SF of Total Development: Total Disturbance. >1Ac **DESCRIPTION** 20 Franklin Drive Sebago Lake **Physical** Watershed: Address: New Gen Estates, LLC New Gen Estates, LLC Name of Name: **Business: PROPERTY** 207-371-0070 50 Maine Mall Road Phone: Mailing South Portland, ME 04074 **OWNER'S** Address: 207-400-0657 INFORMATION Fax or Cell: sgali@nghmllc.com Fmail: Same as above Name of Name: **Business:** APPLICANT'S INFORMATION Phone: Mailing (IF DIFFERENT Address: Fax or Cell: FROM OWNER) Email: Sebago Technics, Inc. Name of Robert A. McSorley, PE Name: **Business:** APPLICANT'S 75 John Roberts Road, Suite 4A 207-200-2074 Phone: Mailing **AGENT** South Portland, ME 04106 Address: **INFORMATION** Fax or Cell: rmcsorley@sebagotechnics.com Email: Existing Land Use (Use extra paper, if necessary): Provide a narrative description of the Proposed Project (Use extra paper, if necessary): PROJECT INFORMATION The proposed project is for the development of a Multi-family housing on lot 2 of the previously approved subdivision. Provide a narrative description of construction constraints (wetlands, shoreland zone, flood plain, non-conformance, etc.): See Attached.



#### SKETCH PLAN REVIEW REQUIREMENTS FOR A MAJOR SITE PLAN APPLICATION

Section 120-811 of the Land Use Ordinance

The submission shall contain five (5) copies of the following information, including full plan sets. Along with one (1) electronic version of the entire submission unless a waiver of a submission requirement is granted.

The Sketch Plan docum	nent/map:
-----------------------	-----------

A) Plan size:

24" X 36"

B) Plan Scale:

No greater 1":100'

C) Title block:

Applicant's name and address

Name of preparer of plans with professional information

Parcel's tax map identification (map and lot) and street address, if available.

Complete application submission deadline: three (3) weeks prior to the desired Planning Board or Staff Review Committee meeting. - Five copies of application and plans

Application Payment and Review Escrow

Pre-submission meeting with the Town staff is required.

Contact information:

Windham Planning Department Steve Puleo, Town Planner Amanda Lessard, Planning Director (207) 894-5960, ext. 2 sipuleo@windhammaine.us allessard@windhammaine.us

#### APPLICANT/PLANNER'S CHECKLIST FOR SKETCH PLAN REVIEW REQUIREMENTS

SUBMITTALS THAT THE TOWN PLANNER DEEMS INCOMPELTE IN CONTENT WILL NOT BE SCHEDULED FOR PLANNING BOARD REVIEW.

The following checklist includes items generally required for development by the Town of Windham's LAND USE ORDINANCE, Sections 811, 812, & 813. Due to projects specifics, are required to provide a complete and accurate set of plans, reports and

IT IS THE RESPONSIBILITY OF THE APPLICANT TO PRESENT A CLEAR UNDERSTANDING OF THE PROJECT.

NOTE TO APPLICANT: PRIOR TO THE SITE WALK, TEMPORARY MARKERS MUST BE ADEQUATELY PLACED THAT ENABLE THE PLANNING BOARD TO READILY LOCATE AND APPRAISE THE LAYOUT OF DEVELOPMENT SEE RULES OF PLANNING BOARD FOR MORE SPECFICS, PER SECTION 120-807D(2)).

supporting documentation (as listed in the checklist below)			MORE SPECFICS, PER SECTION 120-807D(2)).				
Submission Requirements:	Applicant	Staff	Submission Requirements (continued)	Applicant	Staff		
a) Completed Sketch Plan Application form     b) Proposed Project Conditions:			-If yes, submit letter with the waivers being requested, along with a completed "Performance and Design Standards Waiver Request" form.				
- Condition of the site	Ø		Plan Requirements				
- Proposed use	Z		Please note: the Sketch Plan does not need to be surveyed. However, if it is surveyed, please refer to the GIS requirements for Final Plan review. It may be in the applicant's interest to obtain the required GIS data while the surveyor is on site				
Construction of the construction of the			1] The name of the development, North arrow, date, and scale.				
- Constraints/opportunities of site			2] The boundaries of the parcel.				
Outline any of the follow	M. H.		3] The relationship of the site to the surrounding area.				
- Traffic Study	2		4] The topography of the site at an appropriate contour interval depending on the nature of the use and character of the site (in many instances, submittal of the applicable USGS ten-foot contour map will be adequate).	Ø			
- Utility Study	Ø		5] The approximate size and location of major natural features of		pmmg		
- Market Study grou		the site, including wetlands, streams, ponds, floodplains, groundwater aquifers, significant wildlife habitats and fisheries or other important natural features (if none, so state).					
c) Name, address, phone for record owner and applicant	Ø		Existing buildings, structure, or other improvements on the site (if none, so state).		D		
d) Names and addresses of all consultants working on the project.	<b>2</b>		7] Existing restrictions or easements on the site (if none, so state).				
e) Evidence of right, title, or interest in the property	2		Approximate location and size of existing utilities on and adjacent to the tract, including utility poles and hydrants (if none, so state)				
f) Evidence of payment of Sketch Plan fees and escrow deposit			<li>A Class D medium-intensity soil survey (information from the most current soil survey for Cumberland County, Maine, is</li>				
g) Any anticipated waiver requests (Section 120-808)	5-11		acceptable).				
Waivers from Submission Criteria. Will the applicant be requesting waivers from the "Submission information for which a Waiver May be Granted"?			10] The location and size of proposed buildings, structures, access drives, parking areas, and other development features (if				
<ul> <li>If yes, submit letter with waivers being requested, along with a completed "Performance &amp; design Standards Waiver Request Form.</li> </ul>	drives, parking areas, and other of applicable).			William S	b5		
Waivers from Subdivision Performance Standards in <u>Section</u> <u>120-812</u> of the Land Use Ordinance.			PDF Electronic Submission	Z			

The undersigned hereby makes application to the Town of Windham for approval of the proposed project and declares the foregoing to be true and accurate to the best of his/her knowledge.

APPLICANT OR AGENT'S SIGNATURE

DATE

PLEASE TYPE OR PRINT NAME



#### Town of Windham Planning Department: 8 School Road Windham, Maine 04062 Tel: (207) 894-5960 ext. 2 Fax: (207) 892-1916 www.windhammaine.us

	SKET	TCH PLA	N RE	/IEW – N	OLAI	R\MINOR	SUBDI	VISION A	PPLICAT	TION
FEE	S FOR S	KETCH	APPLICA	TION FEE:		200.00	AMOU	NT PAID:		
Р	PLAN REVIEW REVIEW ESCROW:   \$300.00 - MINOR		800.00 - MINOR	\$						
	☑ \$400.00 - MAJOR DAT		DATE: _	DATE:						
								ce Use:	0	ffice Stamp:
PROPE	RTY	Parcel ID	Map#	18	Lot(s) # 26-2-A/ Lot-2		Zoning District(s)	C-1	Total Land Area SF	314,516
DESCRI	PTION	Physical Address	20 Franki	0 Franklin Drive			Watershed:	Sebago Lake		
		Name	New Gen	Estates, LLC				50 Maine Mall South Portlan		
PROPE		Phone	207-371-0	7-371-0070			Mailing			
INFOR	MATION	Fax or Cell	207-400-	0657			Address			
		Email	sgali@ng	hmllc.com					_	
APPLIC	ANT'S	Name	Same as	Same as above						
	MATION	Phone								
(IF DIFFI FROM C		Fax or Cell					Mailing Address			
_		Email	5							
		Name	Robert A. McSorley, PE		Name of Business	Sebago Techi	nics, Inc.			
APPLIC AGENT		Phone	207-200-2	2074				75 John Roberts Road, Suite 4A South Portland, ME 04106		
INFORM	MATION	Fax or Cell					Mailing Address			
	,	Email	rmcsorley	@sebagotechni	cs.com					
Provide a narrative description of the Proposed Project (Use extra paper, if necessary):  The proposed project is for the development of a Multi-family housing on lot 2 of the previously approved subdivision.  Provide a narrative description of construction constraints (wetlands, shoreland zone, flood plain, non-conformance, etc. Use extra										
PROJECT IN		ecessary):	iption of co	onstruction consti	aints (we	tlands, shoreland :	zone, flood pla	iin, non- confor	mance, etc. Use	extra



#### SKETCH PLAN MAJOR\MINOR SUBDIVISION APPLICATION REQUIREMENTS

Section 120-910 of the Land Use Ordinance

The submission shall contain, five (5) copies of following information, including full plan sets. Along with one (1) electronic version of the entire submission unless a waiver of a submission requirement is granted.

#### The Sketch Plan document/map:

A) Plan size:

24" X 36"

B) Plan Scale:

No greater 1":100'

C) Title block:

Applicant's name and address

- Name of preparer of plans with professional information
- Parcel's tax map identification (map and lot) and street address, if

available

- Complete application submission deadline: three (3) weeks prior to the desired Planning Board or Staff Review Committee meeting.
  - Five copies of application and plans
  - Application Payment and Review Escrow
  - Pre-submission meeting with the Town staff is required.
    - Contact information:

Windham Planning Department Steve Puleo, Town Planner Amanda Lessard, Planning Director (207) 894-5960, ext. 2 sipuleo@windhammaine.us allessard@windhammaine.us

#### APPLICANT/PLANNER'S CHECKLIST FOR SKETCH PLAN REVIEW REQUIREMENTS

907A(2)(h)[2])

SUBMITTALS THAT THE TOWN PLANNER DEEMS INCOMPELTE IN CONTENT WILL NOT BE SCHEDULED FOR PLANNING BOARD REVIEW.

The following checklist includes items generally required for development by the Windham's LAND USE ORDINANCE, Section 120-910. Due to projects specifics, are required to provide a complete and accurate set of plans, reports and supporting documentation.

IT IS THE RESPONSIBILITY OF THE APPLICANT TO PRESENT A CLEAR UNDERSTANDING OF THE PROJECT.

NOTE TO APPLICANT: PRIOR TO THE SITE WALK, TEMPORARY MARKERS MUST BE ADEQUATELY PLACED THAT ENABLE THE PLANNING BOARD TO READILY LOCATE AND APPRAISE THE LAYOUT OF DEVELOPMENT (SEE RULES OF PLANNING BOARD FOR MORE SPECFICS, PER SECTIONS 120-906C(3) and 120-

documentation.			<u> </u>		
Submission Requirements:	Applicant	Staff		Applicant	Staff
a) Completed Sketch Plan Application form	<b>☑</b>		h) Copy of portion of the USGS topographic map of the area, showing the boundaries of the proposed subdivision.		
b) Proposed Project Conditions:			<ul> <li>i) An existing resources inventory and site analysis sketch plan for conservation subdivisions as described in § 120-911K(3)</li> </ul>		
- Condition of the site			j) Copy of that portion of the Cumberland County		
- Proposed use			Medium Intensity Soil Survey covering the proposed subdivision, showing the boundaries of the proposed subdivision Submit initialed form regarding additional fees, from applicant intro packet		
- Constraints/opportunities of site			Plan Requirements		
constraints/opportunities of site			Name of subdivision, north arrow, date and scale.	Z	
Outline any of the follow			2. Boundary and lot lines of the subdivision.	J.	
- Traffic Study			Approximate location, width, and purpose of easements or restrictions.		
- Utility Study					
- Market Study			4. Streets on and adjacent to the tract.		
c) Name, address, phone for record owner and applicant			5. Approximate location and size of existing utilities on and		
d) Names and addresses of all consultants working on the project			adjacent to the tract, including utility poles and hydrants (if none, so state).	V	
e) Evidence of right, title, or interest in the property	[Z]				
f) Evidence of payment of Sketch Plan fees and escrow deposit	Ø		Existing buildings, structures, or other improvements on the site.		
g) Any anticipated waiver requests (Section 120-908)			Site.		
Waivers from Submission Criteria. Will the applicant be requesting waivers from the "Submission information for which a Waiver May be Granted"?					
<ul> <li>If yes, submit letter with waivers being requested, along with a completed "Performance &amp; design Standards Waiver Request Form.</li> </ul>			7. Major natural features of the site, approximated by the applicant including wetlands, streams and ponds, floodplains, groundwater aquifers, treelines, significant wildlife habitat and fisheries, and any other important	<b>2</b>	
Waivers from Subdivision Performance Standards in <u>Section</u> 120-911 of the Land Use Ordinance.		0	features.		
<ul> <li>If yes, submit letter with the waivers being requested, along with a completed "Performance and Design Standards Waiver Request" form.</li> </ul>			PDF Electronic Submission	N	

The undersigned hereby makes application to the Town of	Nindham for approval of the proposed project and declares the foregoing to b
true and accurate to the best of his/her knowledge.	

Sal	NS	Sund		5	19/	
APPLICA	NT OR	AGENT'S SIGNATU	JRE	D/	ATE	-

PLEASE TYPE OR PRINT NAME

Suresh Gali, Owner

APPLICANT/ OWNER	Name	New Gen Estates, LLC					
PROPERTY	Physical	Exability	Map 18				
DESCRIPTION	Address	Franklir	Franklin Drive				
	Name	N	Robert A. McSo	orley, PE	Tree days		
AGENT	Phone	207-200-2074	Sebago Technics, Inc. 75 John Roberts Road				
	Fax/Cell		Business Name & Mailing Address	Suite 4A South Portland, ME 04106		04106	
	Email	rmcsorley@sebagotechnics.com	n				

expedite and complete the approval of the proposed development for this parcel.					
Gul Such APPLICANT SIGNATURE	12/16/24 DATE				
Suresh Gali					
PLEASE TYPE OR PRINT NAME HERE					
CO-APPLICANT SIGNATURE	DATE				
PLEASE TYPE OR PRINT NAME HERE					
APPLICANT'S AGENT SIGNATURE	12/17/2024 DATE				
Robert A. McSorley	<b>3</b>				
PLEASE TYPE OR PRINT NAME HERE					

# **Section 1**

## **Description and Constraints**

Sketch Plan Application 230411-01

#### **Property Description**

The property is a 7.88-acre lot that is situated on property at the end of Franklin Drive in Windham Maine. This is shown of the town's tax map 18, lot 26-2. The site is dominated by a plateau of uplands that ranges from 325 to 315 NAVD in elevation which then slopes down to wetlands on the east neighboring lot. The southern area of the lot borders the permitted but not yet constructed extension of Franklin Drive.

#### **Property Constraints**

The parcel has been previously reviewed by Flycatcher, LLC. No wetlands were located on the subject lot, but wetlands were located beyond the eastern boundary that were found to include two vernal pools. One of the vernal pools was considered significant and as such, Maine Department of Environmental Protection defines the critical terrestrial habitat (CTH) of 250' from the pool. The CTH is regulated such that no impacts are allowed in the first 100' and the property is allowed to impact up 25% of the CTH (on the property owner's property) outside of the first 100' as long as it does not isolate any portion of the CTH.

The CTH for this vernal pool extends up into the western plateau as well as a portion of the gravel roadway area between wetlands. Based upon the total CTH area on the property, it is calculated that 101,920 sf of the CTH will be impacted by development of the property; this impact will be approximately 23% of the CTH which will require a permit-by-rule approval from MDEP.

There was a 50' wide access easement extending from the cul-de-sac northwest along the southern boundary that curves away form the property to the north to the property line. This easement will be replaced by an easement and pedestrian path from the Franklin Drive roadway through the open space area of Lot 3 to the natural area.

#### **Opportunities of Site**

The subject lot is significant in size and able to provide for the proposed development.

#### **Traffic:**

Access is readily available from the Franklin Drive right-of-way; this access provides direct connection to SR 302, Roosevelt Trail and the connecting main throughfares in the town area. Based on the 11th Edition of the Institute of Transportation Engineers (ITE) Trip Generation Manual the residential development is calculated to generate 123 AM, 120 PM, and 123 Saturday trips in the peak hours of the generator, respectively, thus warranting a Traffic Movement Permit (TMP) from MaineDOT. A TMP Sections 1-6 Application containing development identified as common scheme on the adjacent parcels, was submitted to MaineDOT and the Town of Windham on 4/1/2025. MaineDOT has performed their initial review of the application materials, and a scoping meeting is currently scheduled for 5/19/2025 with the applicant team, MaineDOT and the Town of Windham. At the scoping meeting the scope and study area for the traffic study will be discussed and identified.

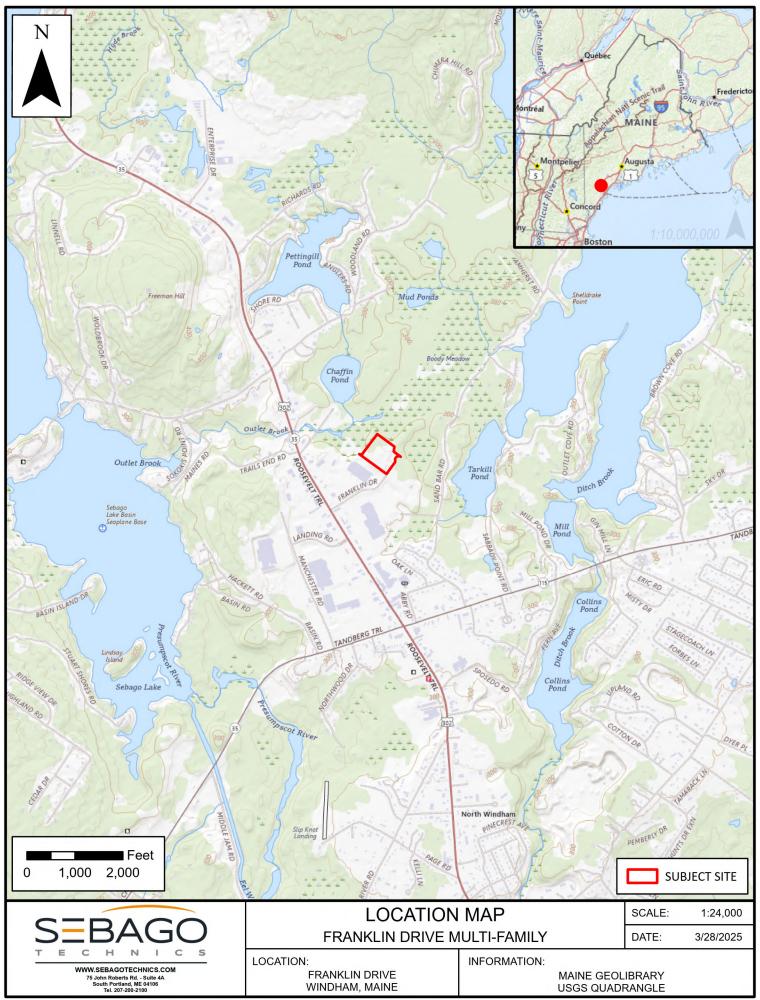
#### **Utilities:**

Although utilities are not evident at the cul-de-sac, there is a water main, electric and communication lines available within the right-of-way, a short distance to the southwest along the roadway. In addition, the current sewer project under way in Windham is expected to provide domestic wastewater service to the parcel which mitigates any effects to the area's groundwater and the Sebago Lake Watershed.

# **Section 2**

**Site Location Map** 

Sketch Plan Application 230411-01



# **Section 3**

Right, Title, or Interest

Sketch Plan Application 230411-01

After Recording Return to: New Gen Estates, LLC 675 Main Street South Portland, ME 04106

#### **QUITCLAIM DEED WITH COVENANT**

DLN: 1002440261357

KNOW ALL MEN BY THESE PRESENTS, that JLB WINDHAM LLC, a Maine limited liability company, with an address C/O Redstone Investments, of 5050 Belmont Avenue, Youngstown, Ohio 44505 ("Grantor"), for consideration paid, grants to NEW GEN ESTATES, LLC, a Maine Limited Liability Company with a mailing address of 675 Main Street, South Portland, ME 04106 ("Grantee), with Quitclaim Covenant, all of its right, title and interest in that certain parcel of land situated in the Town of Windham, County of Cumberland, State of Maine, described as follows:

See Exhibit A attached hereto and incorporated herein by reference (the "Property").

TOGETHER with all the tenements, hereditaments and appurtenances, with every privilege, right, title, interest and estate, reversion, remainder and easement thereto belonging or in anywise appertaining.

Subject to taxes and assessments for the year 2024 and subsequent years, which are not yet due and payable and to all easements, covenants, restrictions, and other matters of record.

IN WITNESS WHEREOF, Grantor has caused this instrument to be executed this 22 day of 2024.

WITNESS:

**GRANTOR:** 

JLB WINDHAM LLC

Print Name:

STATE OF ONTO DONDA )	
COUNTY OF HILLSborouch ;	SS:
The foregoing instrument was acknowledged by	pefore me on the day of 6nlare 2024 of JLB Windram LiC
and that the same is his/her free deed in said capacity a LLC.	and the free act and deed of said Jonlee Windham
MARY KOLESAR  Notary Public - State of Florida Commission # HN 288119 My Comm. Expires Jul 14, 2026 Bonded through National Notary Assn.	May lel

#### EXHIBIT A

#### **Property**

A certain lot or parcel of land located on the westerly sideline of Sandbar Road, so-called, and at the terminus of Franklin Drive, so-called, in the Town of Windham, County of Cumberland and State of Maine and shown on the plan titled "Existing Conditions, Land of JLB Windham LLC, 20 Franklin Drive, Windham, Maine", dated November 2022 as revised through 6/7/23, by BH2M, Inc.; said parcel being more particularly described as follows:

Beginning at a 5/8" iron rod found on the westerly sideline of said Sandbar Road at the southeasterly corner of land now or formerly of Michael & Terry Desmond as shown on aforesaid plan;

thence in a general southerly direction along the westerly sideline of said Sandbar Road and along a circular curve to the left, circumscribed by a radius of 300.00 feet, an arc length of 157.72 feet to a capped iron rod found (PLS #586); said capped iron rod found being S 15°-08'-51" W a tie distance of 155.91 feet from said previous 5/8" iron rod found;

thence S 00°-05'-11" W along the westerly sideline of said Sandbar Road a distance of 32.39 feet to a capped iron rod found (PLS #586) and land now or formerly of Clifford Libby;

thence S 33°-43'-11" W along the land of said Libby a distance of 135.63 feet to a 1 1/4" iron pipe found;

thence N  $79^{\circ}$ -11'-33" W along the land of said Libby a distance of 163.77 feet to a capped iron rod found (PLS #1057);

thence S  $34^{\circ}$ - $43^{\circ}$ - $02^{\circ}$  W along the land of said Libby a distance of 332.75 feet to a capped iron rod found (PLS #1057);

thence S 55°-15'-48" E along the land of said Libby a distance of 147.03 feet to a point and land now or formerly of Scott Vanvalkenburgh;

thence S 34°-45'-17" W along the land of said Vanvalkenburgh, along land now or formerly of Marvin R. Mayberry and along land now or formerly of Windham Veterans Association Inc. a distance of 841.47 feet to a 5/8" iron rod found and land now or formerly of Jonlee Windham, LLC;

thence N 56°-48'-18" W along the land of Jonlee Windham, LLC a distance of 434.59 feet to a point and the easterly sideline of said Franklin Drive;

thence in a general circular direction along the terminus of said Franklin Drive and along a circular curve to the left (non-tangent to the last described line), circumscribed by a radius of 75.00 feet, an arc length of 287.81 feet to a point and land now or formerly of JLB Windham, LLC; said point being N 36°-48'-30" W a tie distance of 140.98 feet from said previous point;

thence N 53°-55'-00" W along the land of said JLB Windham, LLC a distance of 658.28 feet to a point and land now or formerly of Town of Windham known as Donnabeth Lippman Park;

thence S  $77^{\circ}$ -23'-09" E along the land of the Town of Windham a distance of 54.19 feet to a point;

thence N 37°-05'-59" E along the land of the Town of Windham a distance of 1482.78 feet to a 6"x 6" granite monument found and land now or formerly of Francis L. Ungvary IV;

thence S 55°-13'-49" E along the land of said Ungvary and along the land of Desmond a distance of 1044.01 feet to the point of beginning.

The above described parcel contains 38.59 acres. All bearings refer to grid north.

The premises conveyed hereby are also described as follows:

#### PARCEL THREE ("Large Back Lot"):

A certain lot or parcel of land with any buildings thereon situated in Windham, Cumberland County, Maine, and bounded and described as follows:

Beginning at the easterly corner of Lot #14 and the southerly corner of Lot #15 as appears on the Plan of Fourth and Last Division of Lots in Windham, Maine, recorded in the Cumberland County Registry of Deeds in Plan Book 6, Page 9. Also being the most southerly corner of land conveyed by Silas Jacobson to Clinton H. Philpot, et al., by deed recorded in the Cumberland County Registry of Deeds; thence North thirty-seven (37°) degrees forty-five (45') minutes west eleven hundred sixty-five (1,165') feet, more or less, to an iron pipe driven in the ground; thence south fifty-two (52°) degrees fifteen (15') minutes east (inadvertently stated as west in prior deeds) along the southeasterly line of land formerly of E.C. Maines, now of Portland Water District, fourteen hundred seventy-two (1,472') feet, more or less, to a stake and other land now or formerly owned by Veronica P. Smith; thence south thirty-seven (37°) degrees forty-five (45') minutes east along line of other land now or formerly of said Smith a distance of eleven hundred sixty-five (1,165') feet, more or less, to a stake; thence north fifty-two (52°) degrees fifteen (15') minutes west fourteen hundred seventy-two (1,472') feet, more or less, to the point of beginning. Meaning and intending to convey hereby a part of Lot #14 as appears in the Plan of Fourth and Last Division of Lots in Windham, Maine, above-referred to, and being a part of the same premises conveyed to Howard H. Boody by Orin P. Chaffin by deed dated August 8, 1895 and recorded in the Cumberland County Registry of Deeds on August 12,1895 in Book 629, Page 11.

RECEIVED - RECORDED, CUMBERLAND COUNTY REGISTER OF DEEDS

01/08/2024, 08:06:30A

Register of Deeds Jessica M. Spaulding E-RECORDED

Excepting from the above-described premises the Sand Bar Road, so-called, formerly known as South Pond Road, as it is presently laid out, which runs across the above-described premises and which is a public way.

Also excepting from said Parcel Three, those lands described in the following instruments:

- 1. Deed from Lawrence E. Smith and Veronica P. Smith to Clinton L. Smith and Lois L. Smith dated May 27, 1997 and recorded in said Registry of Deeds in Book 13542, Page 46.
- 2. Deed from Lawrence E. Smith and Veronica P. Smith to Windham Mall Associates dated February 24,1992 and recorded in said Registry of Deeds in Book 9919, Page 207.
- 3. Deed from Veronica P. Smith to Bradley S. Woodbrey and Mitchell W. Woodbury dated June 10,2003 and recorded in said Registry of Deeds in Book 19532, Page 165.

Also conveying all rights and easements (if any) reserved in any of the above-described instruments.

Being a portion of those premises conveyed to Grantor by deed of Veronica P. Smith dated June 15, 2005, and recorded in the Cumberland County Registry of Deeds in Book 22854, Page 243.

#### PARCEL FOUR ("Sand Bar Road Lot"):

A certain lot or parcel of land with any buildings thereon situated on the westerly side of Sand Bar Road in the Town of Windham, County of Cumberland and State of Maine, bounded and described as follows:

Beginning at 2' iron found on the westerly side of Sand Bar Road at the southeasterly corner of land now or formerly owned by Clinton L. Smith and Lois L. Smith (Book 8109, Page 188); thence N 16° 01' 26" East distance of 207.00 feet to the POINT OF BEGINNING: thence from said point of beginning N 62° 32' 56" W a distance of 77.91 feet to a point at the easterly corner of land to be conveyed to said Clinton L. Smith and Lois L. Smith by Lawrence E. Smith and Veronica P. Smith by deed dated May 27,1997 and recorded in said Registry of Deeds in Book 13542, Page 46; thence N 51° 16'19" E a distance of 73.90 feet to a 1 - /2" iron found; thence N 48° 56' 01" E a distance of 62.05 feet to a point on the westerly sideline of Sand Bar Road; thence southerly along the westerly sideline of said Sand Bar Road 127.87 feet more or less to the point of beginning.

Meaning and intending to convey a 4,789 square foot parcel of land shown on Standard Boundary Survey on Sand Bar Road, Windham, Maine, prepared by Owen Haskell, Inc., dated May 9,1997, last revised May 27,1997.

Being the same premises conveyed to Grantor by deed of the Lawrence E. Smith Revocable Trust dated June 15, 2005, and recorded in the Cumberland County Registry of Deeds in Book 22854, Page 241.

# **Section 4**

**Soil Report and Map** 

Sketch Plan Application 230411-01



Natural Resources Conservation Service A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

# Custom Soil Resource Report for Cumberland County and Part of Oxford County, Maine



## **Preface**

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2 053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require

alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

# **Contents**

Preface	2
How Soil Surveys Are Made	
Soil Map	
Soil Map	9
Legend	
Map Unit Legend	
Map Unit Descriptions	
Cumberland County and Part of Oxford County, Maine	
HgB—Hermon sandy loam, 3 to 8 percent slopes	14
HIB—Hinckley loamy sand, 3 to 8 percent slopes	15
Sp—Sebago mucky peat	16
Wa—Walpole fine sandy loam	
References	

## **How Soil Surveys Are Made**

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

#### Custom Soil Resource Report

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

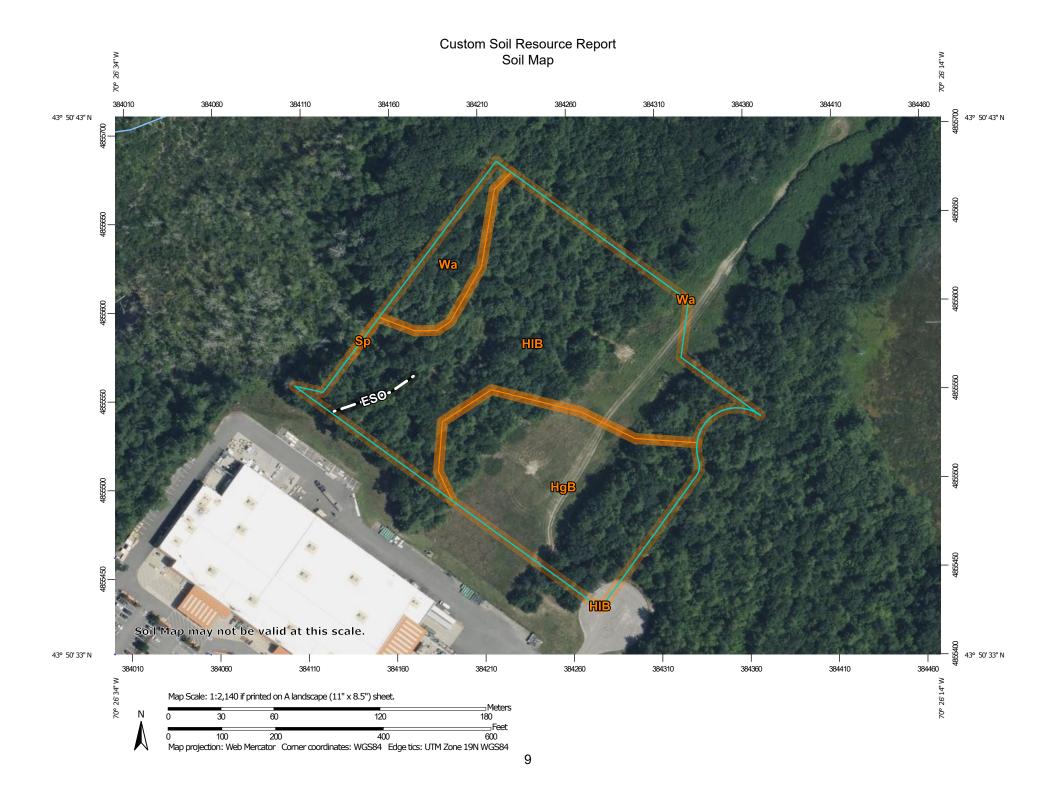
After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

#### Custom Soil Resource Report

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

## Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.



#### MAP LEGEND

#### Area of Interest (AOI)

Area of Interest (AOI)

#### Soils

Soil Map Unit Polygons

Soil Map Unit Points

Soil Map Unit Lines

\_

#### **Special Point Features**

Blowout

Borrow Pit

Clay Spot

Closed Depression

Gravel Pit

Gravelly Spot

Landfill

Lava Flow

Marsh or swamp

Mine or Quarry

Miscellaneous Water

Perennial Water

Sandy Spot

Severely Eroded Spot

Sinkhole

Slide or Slip

Sodic Spot

#### LEGEND

Spoil Area

Stony Spot

Very Stony Spot

Wet Spot

∧ Other

Special Line Features

#### **Water Features**

Streams and Canals

#### Transportation

Rails

Interstate Highways

US Routes

Major Roads

Local Roads

#### Background

Aerial Photography

#### MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24.000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Cumberland County and Part of Oxford

County, Maine

Survey Area Data: Version 21, Aug 26, 2024

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 22, 2021—Oct 7, 2021

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background

## Custom Soil Resource Report

#### **MAP LEGEND**

#### **MAP INFORMATION**

imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## **Map Unit Legend**

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
HgB	Hermon sandy loam, 3 to 8 percent slopes	2.6	33.7%
HIB	Hinckley loamy sand, 3 to 8 percent slopes	4.6	58.3%
Sp	Sebago mucky peat	0.0	0.0%
Wa	Walpole fine sandy loam	0.6	8.0%
Totals for Area of Interest		7.8	100.0%

## **Map Unit Descriptions**

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or

#### Custom Soil Resource Report

landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

### **Cumberland County and Part of Oxford County, Maine**

#### HgB—Hermon sandy loam, 3 to 8 percent slopes

#### **Map Unit Setting**

National map unit symbol: 2w9r8

Elevation: 0 to 950 feet

Mean annual precipitation: 31 to 65 inches Mean annual air temperature: 36 to 52 degrees F

Frost-free period: 90 to 160 days

Farmland classification: Farmland of statewide importance

#### **Map Unit Composition**

Hermon and similar soils: 90 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

#### **Description of Hermon**

#### Setting

Landform: Hills, mountains

Landform position (two-dimensional): Summit, shoulder, backslope

Landform position (three-dimensional): Mountainbase, interfluve, base slope

Down-slope shape: Convex Across-slope shape: Convex

Parent material: Sandy and gravelly supraglacial meltout till derived from granite

and gneiss

#### Typical profile

Ap - 0 to 9 inches: sandy loam

Bs1 - 9 to 16 inches: very gravelly sandy loam
Bs2 - 16 to 32 inches: extremely gravelly loamy sand
C - 32 to 65 inches: very gravelly coarse sand

#### Properties and qualities

Slope: 3 to 8 percent

Depth to restrictive feature: More than 80 inches Drainage class: Somewhat excessively drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high

(1.42 to 14.17 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)

Available water supply, 0 to 60 inches: Low (about 3.9 inches)

#### Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2s

Hydrologic Soil Group: A

Ecological site: F144BY601ME - Dry Sand

Hydric soil rating: No

#### HIB—Hinckley loamy sand, 3 to 8 percent slopes

#### **Map Unit Setting**

National map unit symbol: 2svm8

Elevation: 0 to 1,430 feet

Mean annual precipitation: 36 to 53 inches Mean annual air temperature: 39 to 55 degrees F

Frost-free period: 140 to 240 days

Farmland classification: Farmland of statewide importance

#### **Map Unit Composition**

Hinckley and similar soils: 85 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

#### **Description of Hinckley**

#### Setting

Landform: Outwash plains, eskers, moraines, kame terraces, kames, outwash terraces, outwash deltas

Landform position (two-dimensional): Summit, shoulder, backslope, footslope Landform position (three-dimensional): Nose slope, side slope, base slope, crest, riser, tread

Down-slope shape: Concave, convex, linear Across-slope shape: Convex, linear, concave

Parent material: Sandy and gravelly glaciofluvial deposits derived from gneiss and/or granite and/or schist

#### **Typical profile**

Oe - 0 to 1 inches: moderately decomposed plant material

A - 1 to 8 inches: loamy sand

Bw1 - 8 to 11 inches: gravelly loamy sand Bw2 - 11 to 16 inches: gravelly loamy sand BC - 16 to 19 inches: very gravelly loamy sand C - 19 to 65 inches: very gravelly sand

#### **Properties and qualities**

Slope: 3 to 8 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Excessively drained

Runoff class: Very low

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to very

high (1.42 to 99.90 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)

Available water supply, 0 to 60 inches: Very low (about 3.0 inches)

#### Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3s

#### Custom Soil Resource Report

Hydrologic Soil Group: A

Ecological site: F144AY022MA - Dry Outwash

Hydric soil rating: No

#### Sp—Sebago mucky peat

#### **Map Unit Setting**

National map unit symbol: blk0 Elevation: 0 to 2,500 feet

Mean annual precipitation: 28 to 55 inches Mean annual air temperature: 37 to 52 degrees F

Frost-free period: 80 to 195 days

Farmland classification: Not prime farmland

#### **Map Unit Composition**

Sebago and similar soils: 85 percent *Minor components*: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

#### **Description of Sebago**

#### Setting

Landform: Bogs

Landform position (two-dimensional): Toeslope Landform position (three-dimensional): Talf

Down-slope shape: Linear Across-slope shape: Linear Parent material: Organic material

#### Typical profile

Oe - 0 to 36 inches: mucky peat Oi - 36 to 65 inches: mucky peat

#### **Properties and qualities**

Slope: 0 to 1 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Very poorly drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high

(1.42 to 6.00 in/hr)

Depth to water table: About 0 inches

Frequency of flooding: None Frequency of ponding: Frequent

Available water supply, 0 to 60 inches: Very high (about 18.0 inches)

#### Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 8w

Hydrologic Soil Group: A/D

Ecological site: F144BY230ME - Acidic Peat Wetland Complex

Hydric soil rating: Yes

#### **Minor Components**

#### Wonsqueak

Percent of map unit: 9 percent

Landform: Swamps

Landform position (two-dimensional): Toeslope Landform position (three-dimensional): Talf

Down-slope shape: Linear Across-slope shape: Linear Hydric soil rating: Yes

#### Whitman

Percent of map unit: 3 percent

Landform: Swamps

Landform position (two-dimensional): Toeslope Landform position (three-dimensional): Talf

Down-slope shape: Linear Across-slope shape: Linear Hydric soil rating: Yes

#### Saugatuck

Percent of map unit: 1 percent

Landform: Swamps

Landform position (two-dimensional): Summit Landform position (three-dimensional): Rise

Down-slope shape: Convex Across-slope shape: Convex Hydric soil rating: Yes

#### Ridgebury

Percent of map unit: 1 percent

Landform: Swamps

Landform position (two-dimensional): Summit Landform position (three-dimensional): Rise

Down-slope shape: Convex Across-slope shape: Convex Hydric soil rating: Yes

#### Walpole

Percent of map unit: 1 percent

Landform: Swamps

Landform position (two-dimensional): Summit Landform position (three-dimensional): Rise

Down-slope shape: Convex Across-slope shape: Convex Hydric soil rating: Yes

#### Wa—Walpole fine sandy loam

#### **Map Unit Setting**

National map unit symbol: blk7 Elevation: 0 to 2,800 feet

Mean annual precipitation: 34 to 50 inches Mean annual air temperature: 37 to 46 degrees F

Frost-free period: 80 to 165 days

Farmland classification: Not prime farmland

#### Map Unit Composition

Walpole and similar soils: 85 percent Minor components: 14 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

#### **Description of Walpole**

#### Setting

Landform: Outwash plains

Landform position (two-dimensional): Toeslope Landform position (three-dimensional): Talf

Down-slope shape: Linear Across-slope shape: Linear

Parent material: Sandy glaciofluvial deposits

#### Typical profile

H1 - 0 to 8 inches: fine sandy loam
H2 - 8 to 20 inches: fine sandy loam
H3 - 20 to 65 inches: gravelly loamy sand

#### **Properties and qualities**

Slope: 0 to 3 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Poorly drained

Capacity of the most limiting layer to transmit water (Ksat): High (2.00 to 6.00

in/hr)

Depth to water table: About 0 to 18 inches

Frequency of flooding: None Frequency of ponding: None

Available water supply, 0 to 60 inches: Low (about 5.7 inches)

#### Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 4w

Hydrologic Soil Group: A/D

Ecological site: F144BY303ME - Acidic Swamp

Hydric soil rating: Yes

#### **Minor Components**

#### Au gres

Percent of map unit: 9 percent Landform: Outwash plains

Landform position (two-dimensional): Toeslope Landform position (three-dimensional): Talf

Down-slope shape: Linear Across-slope shape: Linear Hydric soil rating: Yes

#### Scarboro

Percent of map unit: 5 percent Landform: Outwash plains

Landform position (two-dimensional): Toeslope Landform position (three-dimensional): Dip

Down-slope shape: Linear Across-slope shape: Linear Hydric soil rating: Yes

## References

American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.

American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.

Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of wetlands and deep-water habitats of the United States. U.S. Fish and Wildlife Service FWS/OBS-79/31.

Federal Register. July 13, 1994. Changes in hydric soils of the United States.

Federal Register. September 18, 2002. Hydric soils of the United States.

Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.

National Research Council. 1995. Wetlands: Characteristics and boundaries.

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2 054262

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service, U.S. Department of Agriculture Handbook 436. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2 053577

Soil Survey Staff. 2010. Keys to soil taxonomy. 11th edition. U.S. Department of Agriculture, Natural Resources Conservation Service. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2 053580

Tiner, R.W., Jr. 1985. Wetlands of Delaware. U.S. Fish and Wildlife Service and Delaware Department of Natural Resources and Environmental Control, Wetlands Section.

United States Army Corps of Engineers, Environmental Laboratory. 1987. Corps of Engineers wetlands delineation manual. Waterways Experiment Station Technical Report Y-87-1.

United States Department of Agriculture, Natural Resources Conservation Service. National forestry manual. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/home/?cid=nrcs142p2 053374

United States Department of Agriculture, Natural Resources Conservation Service. National range and pasture handbook. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/landuse/rangepasture/?cid=stelprdb1043084

#### Custom Soil Resource Report

United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2\_054242

United States Department of Agriculture, Natural Resources Conservation Service. 2006. Land resource regions and major land resource areas of the United States, the Caribbean, and the Pacific Basin. U.S. Department of Agriculture Handbook 296. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2\_053624

United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210. http://www.nrcs.usda.gov/Internet/FSE\_DOCUMENTS/nrcs142p2\_052290.pdf

