

PLANT SPECIES LIST

Site: 1231 Bormish
 Polygon: W0D-010
 UTM: 17T 0446806 4772766
 Date: 26 Aug 2011 Time: 11:30
 Surveyor(s): KNP, JRW
 Weather: 24°C sunny, cloud cover 40%, Windspeed 1 from W

Site: 1231 Bormish
 Polygon: W0D-010
 UTM: 17T 0446806 4772766
 Date: 26 Aug 2011 Time: 11:30
 Surveyor(s): KNP, JRW
 Weather: 24°C sunny, cloud cover 40%, Windspeed 1 from W

Community Classification

Vegetation Type: Dry-fresh sugar maple-white ash deciduous forest FODM5-8
 Inclusion: Green ash mineral deciduous swamp SWDMA-2
 Complex:

Layers: 1=canopy 2=sub-canopy 3=understorey 4=ground layer

Abundance Codes: R=rare O=occasional A=abundant D=dominant

Polygon Description

System	Substrate	Topo Feature	Community
<input checked="" type="checkbox"/> Terrestrial	Organic	Lacustrine	Talus
<input type="checkbox"/> Wetland	<input checked="" type="checkbox"/> Mineral Soil	Riverine	Crevice/Cave
<input type="checkbox"/> Aquatic	Parent Min.	<input checked="" type="checkbox"/> Bottomland	Alvar
	Acidic Bedrock	Terrace	Rockland
	Basic Bedrock	Valley Slope	Beach/Bar
History	Carb. Bedrock	Tableland	Sand Dune
<input checked="" type="checkbox"/> Natural		Roll. Upland	Bluff
<input type="checkbox"/> Cultural		Cliff	
Cover	Open Water	Plant Form	
<input type="checkbox"/> Open	Shallow Water	Plankton	Forb
<input type="checkbox"/> Shrub	<input checked="" type="checkbox"/> Surficial Dep.	Submerged	Lichen
<input checked="" type="checkbox"/> Treed	Bedrock	Floating-Lvd.	Bryophyte
		Graminoid	<input checked="" type="checkbox"/> Deciduous

Species	Layer				Sample
	1	2	3	4	
Silver Maple	R	O	O	O	incl.
Large toothed Aspen		R			
American Elm	R	R	R		
Green Ash	O	O	O	O	incl.
Black cherry	R	R			
Shagbark Hickory	R	R	R		
Ash Beech		R	R		
Sugar Maple	A	O	O		
Hop humber		R			
Basswood		R	R		
White ash	O				
Willow sp.		R			
Fremont's maple					
dogwood sp.			R		

Species	Layer				Sample
	1	2	3	4	
Berberis grape				R	
golden rod sp.				O	
spotted juncos				O	
dark mustard				O	
herb robert				O	
Track in the pupa				R	
Big Zoo goldenrod				O	
Canada anemone				R	
fern sp.				R	
Water primip				O	

Stand Description

Layer	HT	Cover	Species
* Super-canopy			
1 Canopy	2	4	Sugar maple & white ash
2 Sub-canopy	3	4	Sugar maple & white ash
3 Understorey	1/2	2	Sugar maple
4 Groundcover	1/4	2	poison ivy & garlic mustard

HT Codes: 1: >25m 2: 25-10m 3: 10-2m 4: 2-1m 5: 1-0.5m 6: 0.5-0.2m 7: <0.2m

Cover Codes: 0: none 1: 0-10% 2: 10-25 3: 25-60% 4: >60%

Size Class Analysis	R < 10	O 10-24	O 25-50	O > 50
Snags	O < 10	O 10-24	O 25-50	R > 50
Deadfall/Logs	O < 10	O 10-24	O 25-50	R > 50

Abundance Codes: N: None R: Rare O: Occasional A: Abundant

Community Age: Pioneer Young Mid-age Mature Old Growth

Wildlife and Other Notes

Soil is mineral to organic horizon in some areas
 incl. = inclusion

Site: Bornish 1231
 Polygon: WAD-010
 UTM: 17T 0446806 4772766
 Date: 26/08/11 Time: 11:30
 Surveyor(s): JRU, KNP
 Weather: 24°C, Wind = 2, C.C. = 75%

Species Observed					Check for Wildlife Habitat that may be associated with an observation				
TY	Species	EV	Notes	#	TY	Species	EV	Notes	#
B	Turkey Vulture	OB		1					
B	Woodpecker	NO		1					
B	Am. Robin	VO		1					
B	Song Sparrow	VO		1					
B	Blue Jay	VO		2					
	Monarch	OB		1					

Faunal Type Codes (TY)
 B=Bird M=Mammal H=Herpetofauna L=Lepidoptera F=Fish D=Dragonfly or Damselfly

Evidence Codes (EV)

Breeding Birds
 SH- Suitable Habitat
 SM- Singing Male
 T- Territory
 A- Anxiety Behavior
 D- Courtship Display
 N- Nest Building
 P- Pair
 V- Visiting Nest
 DD- Distraction Display
 NE- Nest with Eggs
 AE- Adult entering nest
 NU- Used nest
 FY- Fledged Young
 FS- Food/Fecal Sac

Other Wildlife
 OB- Observed
 DP- Distinctive Parts
 TK- Tracks
 VO- Vocalization
 HO- House/Den
 FE- Feeding Evidence
 CA- Carcass/Bones
 FY- Eggs or young
 SC- Scat
 SI- Other Signs (Specify)

Site: Bornish 1231
 Polygon: WAD 010
 UTM: 17T 0446806 4772766
 Date: 26/08/11 Time: 11:30
 Surveyor(s): JRU, KNP
 Weather: 24°C, Wind = 2, C.C. = 75%

Wildlife Habitat (Check all that apply AND record UTM / mark on map)
Habitats and Habitat Features are independent of wildlife observations

Habitat Type	Habitat Features	
<input checked="" type="checkbox"/> Deciduous Forest	Birds	Snakes
<input type="checkbox"/> Mixed Forest	<input type="checkbox"/> Spring Flooded Field	<input type="checkbox"/> Burrow
<input type="checkbox"/> Coniferous Forest	<input type="checkbox"/> Stick Nest (Raptors, Herons)	<input checked="" type="checkbox"/> Fallen Rotting Log
<input type="checkbox"/> Marsh	<input type="checkbox"/> Snag (Raptors, Herons)	<input type="checkbox"/> Old Well
<input checked="" type="checkbox"/> Swamp	<input type="checkbox"/> Tree Cavity Nest (Ducks)	<input type="checkbox"/> Rock Pile/Stone Wall
<input type="checkbox"/> Bog	<input type="checkbox"/> Seep/Spring (Turkeys/Grouse)	<input type="checkbox"/> Organics Pile
<input type="checkbox"/> Fen	<input type="checkbox"/> Cliffs/Banks	<input type="checkbox"/> Log Pile
<input type="checkbox"/> Water	Bats	<input type="checkbox"/> Karst
<input type="checkbox"/> (Shallow & Open)	<input type="checkbox"/> Cave Entrance	<input type="checkbox"/> Broken/Fissured Rock
<input type="checkbox"/> Meadow	<input type="checkbox"/> Mine Shaft	<input type="checkbox"/> Old Foundation
<input type="checkbox"/> Tallgrass Prairie	<input checked="" type="checkbox"/> Snag (>20cm DBH)	<input type="checkbox"/> Old Bridge/Concrete Culvert
<input type="checkbox"/> Thicket	Mink/Otter/Fisher/Marten	Amphibians and Turtles
<input type="checkbox"/> Savannah	<input type="checkbox"/> Snag	<input type="checkbox"/> Vernal Pool/Woodland Pond (Amphibian Breeding)
<input type="checkbox"/> Woodland	<input type="checkbox"/> Burrow	<input type="checkbox"/> Sand (Turtle Nesting)
<input type="checkbox"/> Valley	<input type="checkbox"/> Den	<input type="checkbox"/> Fine/Sandy Gravel (Turtle Nesting)
<input type="checkbox"/> (Describe Below)	<input type="checkbox"/> Tree Cavity	Invertebrates
<input type="checkbox"/> Headwater Area	<input type="checkbox"/> Fallen Log	<input type="checkbox"/> Crayfish Chimney
<small>(check for Seeps/Springs)</small>	Deer/Moose	
	<input type="checkbox"/> Seep/Spring	
	<input type="checkbox"/> Mineral Lick	

For every Habitat Type or Habitat Feature, record UTM below (for each occurrence) or mark on map

Habitat Feature:	UTM	Description
Large den @ base of tree + large tree fallen + pulled up earth	17T 0446806 4772766	
Large snag	17T 0446811 4772766	Large snag collapsed onto another tree
big cavity in large maple	17T 0446595 4772751	

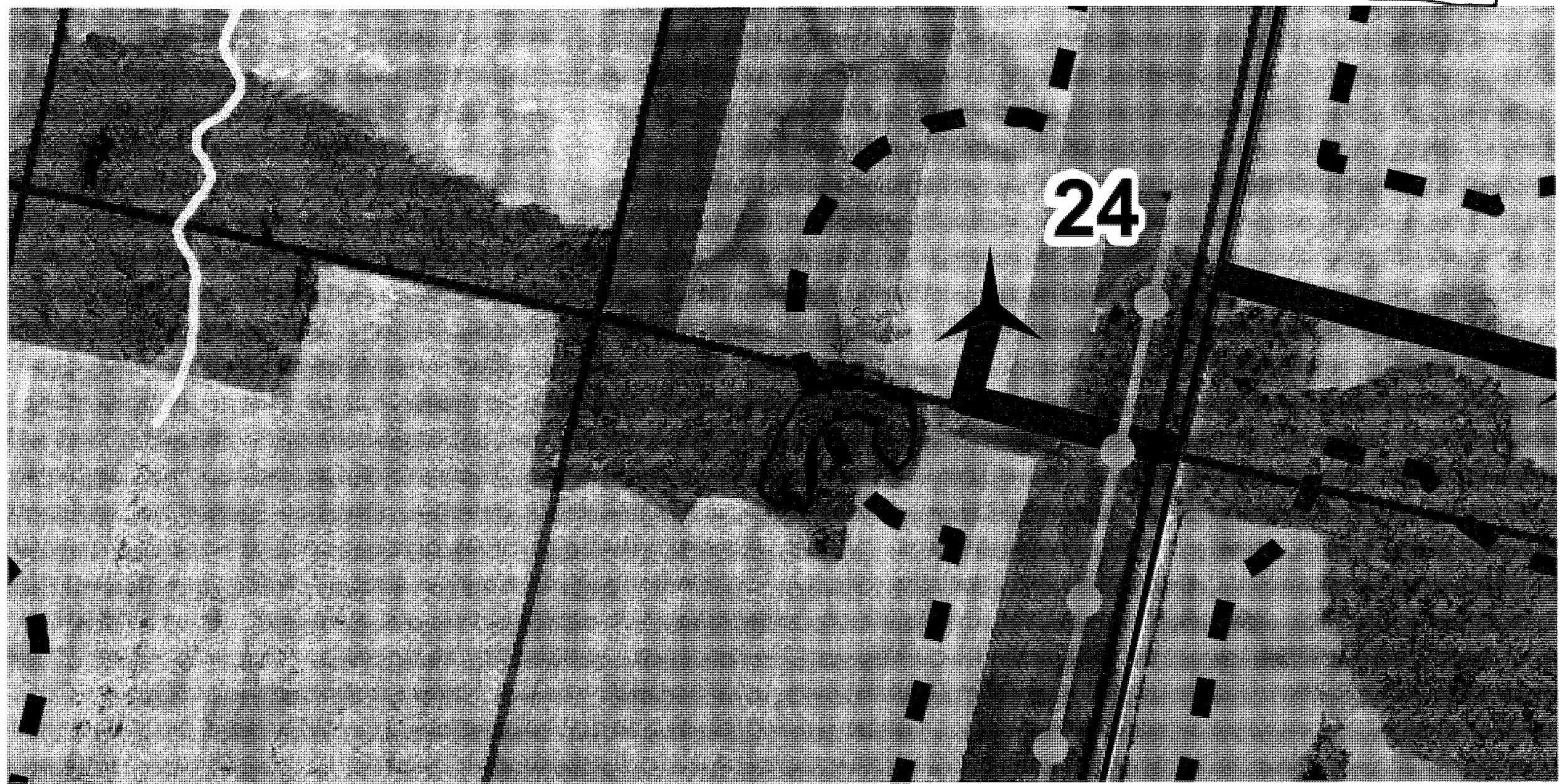
Describe Valley (depth, geomorphological traits):

Additional Details:

Wetland Evaluation Map

Sept 30, 2011
KNP, PWD

*1231 Barnish
WOD 010





NATURAL RESOURCE SOLUTIONS INC.
Aquatic, Terrestrial and Wetland Biologists

Wetland Vegetation Communities

Project Name: Barnish Project #: 1231

Observer(s): PWD, KNP

Date: Sept 30, 2011 Time (24h): 13:45

Field #: WAD-010 Weather: Precipitation: Heavy Temp (°C): 10

Map Code: Wind Speed & Direction: S/W Cloud %: 100

Wetland Type: Swamp Site Type: Palustrine Dominant Form: h

% Open Water: 0 ELC Code: SWDMA-2

Photos: 0609 OWES code: h5

Forms % (Circle those >25%) Species (dominant species, secondary species, present species)

h Freeman's Maple 15% Silver Maple 10% Green Ash 80%

c _____

dc,dh,ds _____

ts Nannyberry <5% (fringe of swamp).

ls Black Currant <5%

gc Poison Ivy 5% Ash sp. (seedlings) 5% Sp. Jewelweed 5%

ne Blue Flag Iris <1%

be _____

re _____

ff _____

f _____

su _____

m _____

Soil type: cl Organic Mineral

Rare Species (Local, Regional, Provincial):	Wildlife Notes:

SAR observations must also include a specific UTM location.

Forms: h=deciduous trees; c=coniferous trees; dh, dc, ds=dead trees/shrubs; ts=tall shrubs; ls=low shrubs; gc=ground cover; ne=narrow emergents; be=broad emergents; f=floating plants; ff=free-floating plants; su=submerged plants; m=mosses

Wetland Type: S=swamp; M=marsh; B=bog; F=fen

Site Type: L=lacustrine; P=palustrine; R=riverine; IS=isolated

Soil type: cl=clay/loam; sl=silt/loam; l=limestone; s=sand; hm=humic/mesic; f=fibric; g=granite **Organic**= >60cm depth over mineral (>10cm over bedrock) **Mineral**= <60cm depth over mineral

map 10
-near
turbine
43

1531,
1138
Centre Rd
between
Bornish Dr
& Elm Tree
Dr.

24 hr
notice
David &
Sheila
Watson
519 232-
4115



519
232
9829

WOD-
012



Image © 2011 First Base Solutions
© 2011 Google

© 2010 Google

Imagery Date: 3/31/2006

2006

43°05'35.62" N 81°41'19.83" W elev 805 ft

Eye alt 1936 ft

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Modified ELC Community Description

Page 4 of 4

elm tree on a centre

same as WOD 012, all one polygon

Site: 1237 Barnish
 Polygon: WOD-021
 UTM: 17T-044373S-4770769
 Date: 05/10/2011 Time: 12:30
 Surveyor(s): KNP-WGSW
 Weather: 18°C - Wind: 1 SW CC: 10%

Community Classification

Vegetation Type: WODM-4.3 - Dry-lick sugar maple deciduous woodland
 Inclusion:
 Complex:

Polygon Description

System	Substrate	Topo Feature	Community
<input checked="" type="checkbox"/> Terrestrial	<input type="checkbox"/> Organic	<input type="checkbox"/> Lacustrine	<input type="checkbox"/> Talus
<input type="checkbox"/> Wetland	<input checked="" type="checkbox"/> Mineral Soil	<input type="checkbox"/> Riverine	<input type="checkbox"/> Crevice/Cave
<input type="checkbox"/> Aquatic	<input type="checkbox"/> Parent Min.	<input type="checkbox"/> Bottomland	<input type="checkbox"/> Alvar
	<input type="checkbox"/> Acidic Bedrock	<input type="checkbox"/> Terrace	<input type="checkbox"/> Rockland
History	<input type="checkbox"/> Basic Bedrock	<input type="checkbox"/> Valley Slope	<input type="checkbox"/> Beach/Bar
<input type="checkbox"/> Natural	<input type="checkbox"/> Carb. Bedrock	<input checked="" type="checkbox"/> Tableland	<input type="checkbox"/> Sand Dune
<input type="checkbox"/> Cultural		<input type="checkbox"/> Roll Upland	<input type="checkbox"/> Bluff
		<input type="checkbox"/> Cliff	
Cover	<input type="checkbox"/> Open Water	Plant Form	
<input type="checkbox"/> Open	<input type="checkbox"/> Shallow Water	<input type="checkbox"/> Plankton	<input type="checkbox"/> Forb
<input type="checkbox"/> Shrub	<input checked="" type="checkbox"/> Surficial Dep.	<input type="checkbox"/> Submerged	<input type="checkbox"/> Lichen
<input checked="" type="checkbox"/> Treed	<input type="checkbox"/> Bedrock	<input type="checkbox"/> Floating-Lvd	<input type="checkbox"/> Bryophyte
		<input type="checkbox"/> Graminoid	<input checked="" type="checkbox"/> Deciduous
			<input type="checkbox"/> Coniferous
			<input type="checkbox"/> Mixed

Roadside ELC - no access

Stand Description

Layer	HT	Cover	Species
* Super-canopy			
1 Canopy	2	4	Sugar Maple > white ash
2 Sub-canopy	3	4	Sugar Maple & white ash & Am. Elm
3 Understorey	1/2	4	Solidago sp. & Cornus sp.
4 Groundcover	?	?	? - no access

Hop horn bean

HT Codes: 1: >25m 2: 25-10m 3: 10-2m 4: 2-1m 5: 1-0.5m 6: 0.5-0.2m 7: <0.2m
 Cover Codes: 0: none 1: 0-10% 2: 10-25 3: 25-60% 4: >60%

Size Class Analysis	A < 10	A 10-24	O 25-50	A > 50
Snags	< 10	10-24	25-50	> 50
Deadfall/Logs	< 10	10-24	25-50	> 50

Abundance Codes: N: None R: Rare O: Occasional A: Abundant

Community Age	Pioneer	Young	<input checked="" type="checkbox"/> Mid-age	Mature	Old Growth
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NATURAL RESOURCE SOLUTIONS INC

Modified ELC Community Description

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PLANT SPECIES LIST

Site: 1237 Barnish
 Polygon: WOD-021
 UTM: 17T-044373S-4770769
 Date: 05/10/2011 Time: 12:30
 Surveyor(s): KNP-WGSW
 Weather: 18°C - Wind: 1 SW CC: 10%

Layers: 1=canopy 2=sub-canopy 3=understorey 4=ground layer

Abundance Codes: R=rare O=occasional A=abundant D=dominant

Species	Layer				Sample	Species	Layer				Sample
	1	2	3	4			1	2	3	4	
Sugar Maple	O	O				Solidago sp.			A		
White Ash	A	O				Cornus sp.			O		
Am. Elm	R	O									
Hop horn bean	R										

Wildlife and Other Notes

- approximated from WOD-012 (adjacent property)
 - Roadside
 UTM at roadside - next forest.

PLANT SPECIES LIST

Site: Bornish WF #1231
 Polygon: WOD-13
 UTM: 17T 043 9448 4776000
 Date: Sept 19/11 Time: 15:00
 Surveyor(s): NGM, SAG
 Weather: light rain, C.C: 100%, Wind: 2 W, Temp: 19°C

Community Classification

Vegetation Type: Dry-fresh sugar maple deciduous woodland
 Inclusion: WOD11-13
 Complex:

Polygon Description

System	Substrate	Topo Feature	Community
<input checked="" type="checkbox"/> Terrestrial	<input type="checkbox"/> Organic	<input type="checkbox"/> Lacustrine	<input type="checkbox"/> Lake
<input type="checkbox"/> Wetland	<input checked="" type="checkbox"/> Mineral Soil	<input type="checkbox"/> Riverine	<input type="checkbox"/> Pond
<input type="checkbox"/> Aquatic	<input type="checkbox"/> Parent Min.	<input type="checkbox"/> Bottomland	<input type="checkbox"/> River
	<input type="checkbox"/> Acidic Bedrock	<input type="checkbox"/> Terrace	<input type="checkbox"/> Stream
History	<input type="checkbox"/> Basic Bedrock	<input type="checkbox"/> Valley Slope	<input type="checkbox"/> Marsh
<input checked="" type="checkbox"/> Natural	<input checked="" type="checkbox"/> Carb. Bedrock	<input checked="" type="checkbox"/> Tableland	<input type="checkbox"/> Sand Dune
<input type="checkbox"/> Cultural		<input type="checkbox"/> Roll Upland	<input type="checkbox"/> Bluff
		<input type="checkbox"/> Cliff	<input type="checkbox"/> Bog
Cover	<input type="checkbox"/> Open Water	Plant Form	
<input type="checkbox"/> Open	<input type="checkbox"/> Shallow Water	<input type="checkbox"/> Plankton	<input type="checkbox"/> Forb
<input type="checkbox"/> Shrub	<input checked="" type="checkbox"/> Surficial Dep.	<input type="checkbox"/> Submerged	<input type="checkbox"/> Lichen
<input checked="" type="checkbox"/> Tread	<input type="checkbox"/> Bedrock	<input type="checkbox"/> Floating-Lvd.	<input type="checkbox"/> Bryophyte
		<input type="checkbox"/> Graminoid	<input checked="" type="checkbox"/> Deciduous

Roadside ELC
No site Access

Stand Description

Layer	HT	Cover	Species
* Super-canopy			
1 Canopy	2	4	Sugar maple > white Ash - hawthorn
2 Sub-canopy	4	3	White Ash > Black walnut > hawthorn
3 Understorey	6	4	Hawthorn > apple > white Ash > sugar maple
4 Groundcover	7	3	Goldenrod > Aster sp > Brom grass > hawthorn

HT Codes: 1: >25m 2: 25-10m 3: 10-2m 4: 2-1m 5: 1-0.5m 6: 0.5-0.2m 7: <0.2m
 Cover Codes: 0:none 1: 0-10% 2: 10-25 3: 25-60% 4: >60%

Size Class Analysis	< 10	10-24	25-50	> 50
Snags	A	A	A	N
Deadfall/Logs	-	-	-	-

Abundance Codes: N: None R: Rare O: Occasional A: Abundant

Community Age	Pioneer	Young	<input checked="" type="checkbox"/> Mid-age	Mature	Old Growth
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Site: Bornish 1231
 Polygon: WOD-013
 UTM: 17T 043 9448 4776000
 Date: Sept 19/11 Time: 15:00
 Surveyor(s): NGM, SAG
 Weather: light rain, C.C: 100%, wind 2 W, Temp 19°C

Layers: 1=canopy 2=sub-canopy 3=understorey 4=ground layer

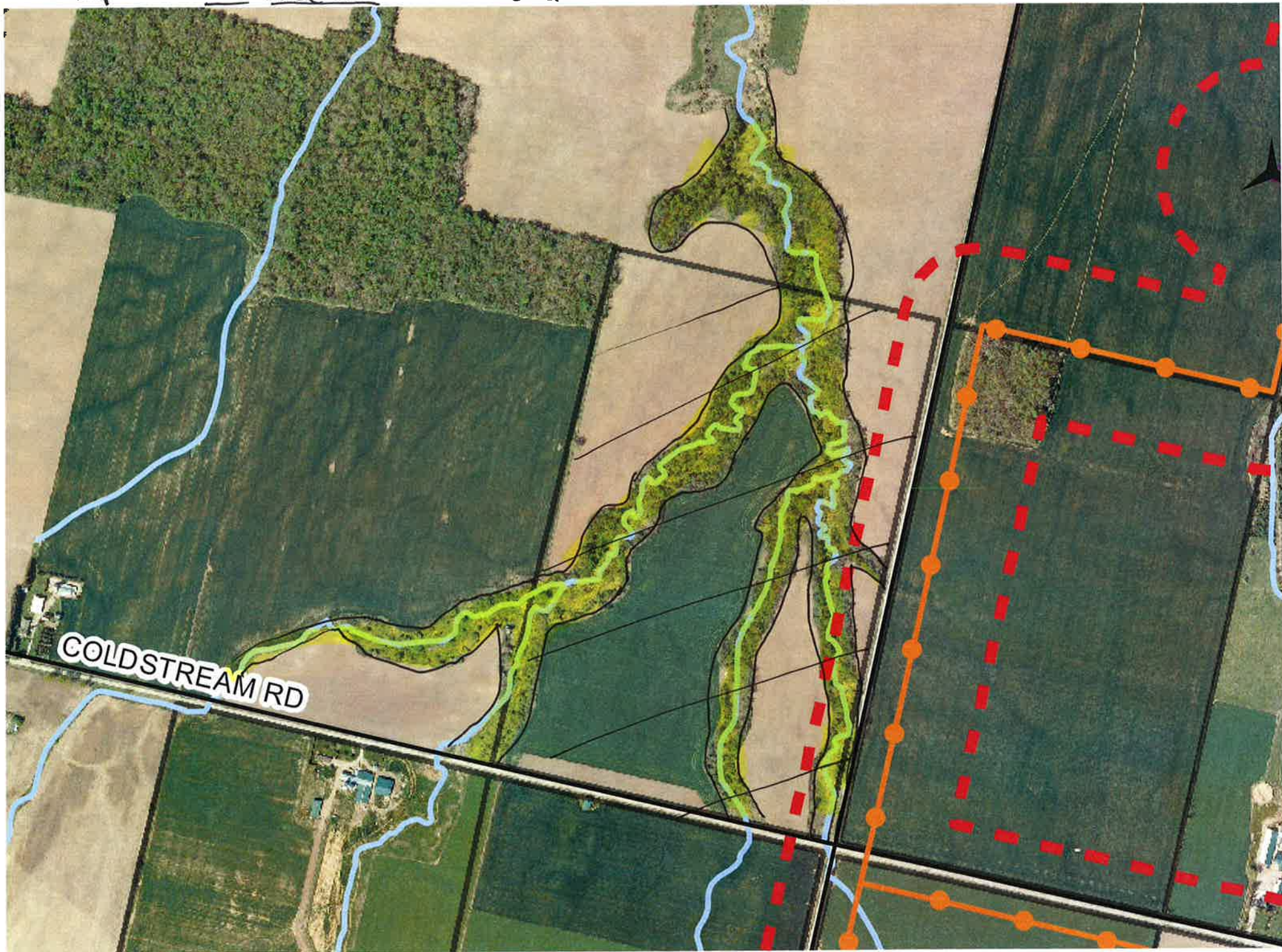
Abundance Codes: R=rare O=occasional A=abundant D=dominant

Species	Layer				Sample	Species	Layer				Sample	
	1	2	3	4			1	2	3	4		
Am. Basswood	O	O										
East. Cottonwood	O											
Sugar Maple	A	O										
White Ash	A	O										
Hop Yew	A											
Euro. Beech	O											
Black Walnut	A	O										
Apple		O										
Ash Elm	O	O										
Goldenrod sp.				O								
Redstart sp.				O								
Mullein				R								
Queen Anne's Lace				R								
White Birch	O											
Hawthorn sp.	O	O										
Aster sp.				O								
Brom grass				O								
Teasel				O								
Bull Thistle				O								
Dogwood sp.				O								

Other Notes (Landowner Contact, General Notes, etc.)

photo- 12.10
no access
0 see

Map 14 - NO ACCESS - do roadside ELC W00-013



Site: 1231 Bornish
 Polygon: WOD-014
 UTM: 17T 0443503 4771769
 Date: 26 Sept 2011 Time: 12:55
 Surveyor(s): KNP, HLW
 Weather: 18°C, 100% cloud cover w/ rain, windspeed 2 from SW

Community Classification

Vegetation Type: Fresh-moist white elm lowland deciduous forest FODM7-1
 Inclusion: Maple Mineral deciduous swamp
 Complex: SWDM3

Polygon Description

System	Substrate	Topo Feature	Community
<input checked="" type="checkbox"/> Terrestrial	Organic	Lacustrine	Lake
<input type="checkbox"/> Wetland	<input checked="" type="checkbox"/> Mineral Soil	Riverine	Pond
<input type="checkbox"/> Aquatic	Parent Min.	<input checked="" type="checkbox"/> Bottomland	River
	Acidic Bedrock	Terrace	Stream
	Basic Bedrock	Valley Slope	Marsh
<input checked="" type="checkbox"/> Natural	Carb. Bedrock	Tableland	Swamp
<input type="checkbox"/> Cultural		Roll. Upland	Fen
		Cliff	Bog
			Plantation

Cover	Open Water	Plant Form
<input type="checkbox"/> Open	Shallow Water	Plankton
<input type="checkbox"/> Shrub	<input checked="" type="checkbox"/> Surficial Dep.	Submerged
<input checked="" type="checkbox"/> Treed	Bedrock	Floating-Lvd.
		Graminoid
		<input checked="" type="checkbox"/> Deciduous

Stand Description

Layer	HT	Cover	Species
* Super-canopy			
1 Canopy	2	4	white elm >> sugar maple
2 Sub-canopy	3	4	white elm >> sugar maple
3 Understorey	1/5	3	white elm > aster sp.
4 Groundcover	1/7	3	garlic mustard > poison ivy

HT Codes: 1: >25m 2: 25-10m 3: 10-2m 4: 2-1m 5: 1-0.5m 6: 0.5-0.2m 7: <0.2m
 Cover Codes: 0:none 1: 0-10% 2: 10-25 3: 25-60% 4: >60%

Size Class Analysis	A	< 10	A	10 - 24	A	25 - 50	R	> 50
Snags	O	< 10	O	10 - 24	R	25 - 50	N	> 50
Deadfall/Logs	O	< 10	O	10 - 24	R	25 - 50	N	> 50

Abundance Codes: N: None R: Rare O: Occasional A: Abundant

Community Age: Pioneer Young Mid-age Mature Old Growth

Site: 1231 Bornish
 Polygon: WOD-014
 UTM: 17T 0443503 4771769
 Date: 26 Sept. 2011 Time: 12:55
 Surveyor(s): KNP, HLW
 Weather: 18°C, 100% cloud cover w/ rain, wind 2 from SW

Layers: 1=canopy 2=sub-canopy 3=understorey 4=ground layer

Abundance Codes: R=rare O=occasional A=abundant D=dominant

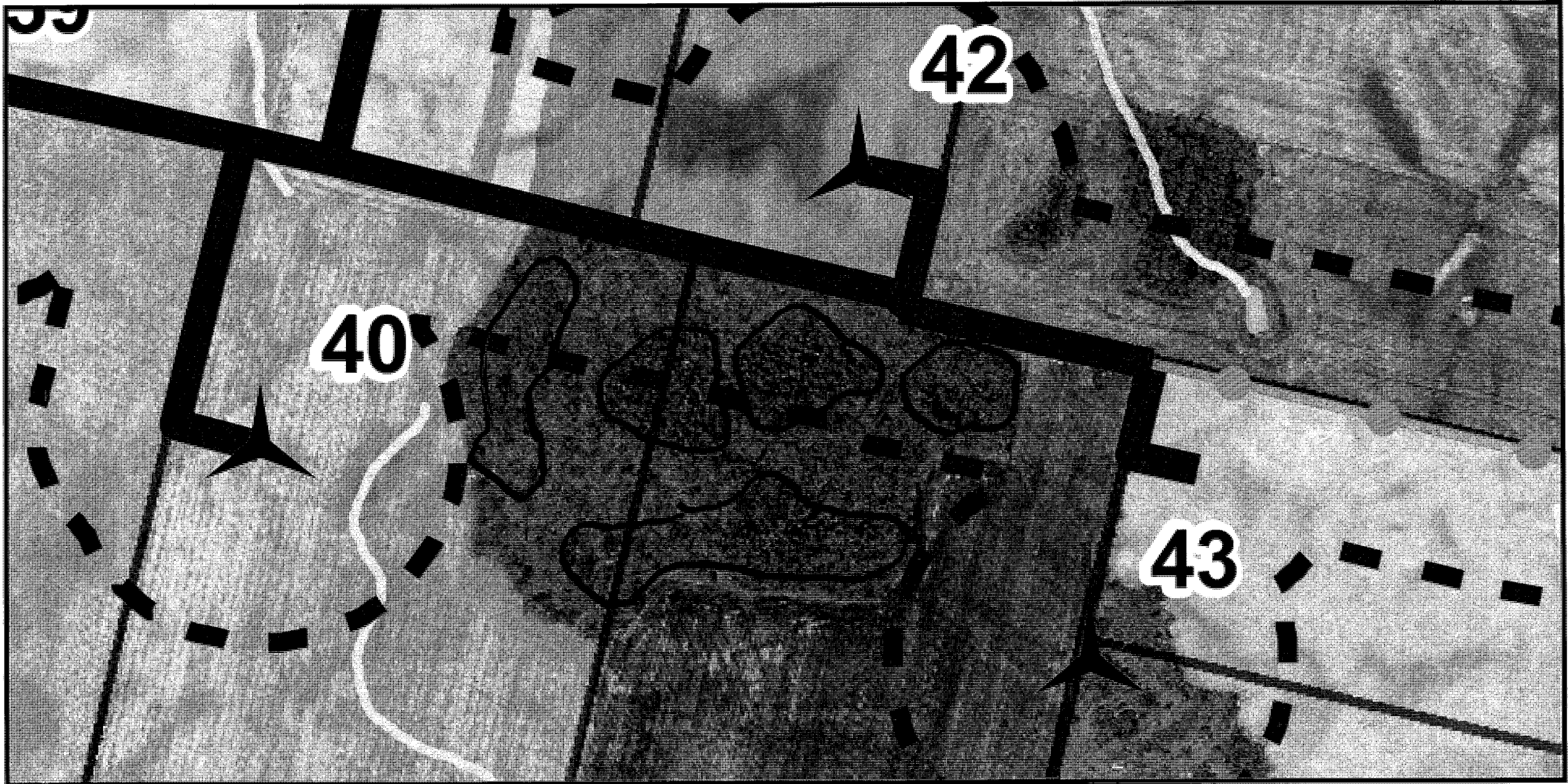
Species	Layer				Sample
	1	2	3	4	
Sugar Maple	R	R	R		
Green ash	O	O	O	A	incl.
white elm	O	O	O		
Freemans maple	A	O	O		incl.
blue beech		O			
red oak		R			
black cherry		O			
black hickory		O	R		
yellow birch		R			
hophornbeam		R			
Sensitive fern					R
black dock					R
garlic mustard					R
aster sp.				O	
herb robert					O
garlic mustard					A
river hickory					O
yellow axons					O
slaked radishes					O
red raspberry					R
garlic mustard					O
black hickory					O
hawthorn sp.		R			

Other Notes (Landowner Contact, General Notes, etc.)

1. since maple > green ash swamp
 2. sugar maple + hardwood fresh-moist
 3. freemans maple > white elm swamp
 incl. = inclusion

1231
WOD-014

Wetland evaluation map



Site is almost 50/50 swamp and fresh-moist forest



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Aquatic, Terrestrial and Wetland Biologists

Wetland Vegetation Communities

Project Name: Bornish Project #: 1231

Observer(s): PWD,KNP

Date: Sept 30, 2011 Time (24h): 12:30

Field #: W01014 Weather: Precipitation: None Temp (°C): 16

Map Code: Wind Speed & Direction: 4/W Cloud %: 100

Wetland Type: Swamp Site Type: Isolated Dominant Form: h

% Open Water: 0 ELC Code: SWDM3

Photos: 0605,0606 OWES code: hs

Forms % (Circle those ≥25%) Species (dominant species, secondary species, present species)

h Freeman's Maple 75% Gr. Ash 20% Red Maple 5% Bur Oak 5% Yellow Birch 5%

c _____

dc,dh,ds _____

ts Gr. Ash 10%

ls Black Huckleberry 6%

gc Poisonivy 5% Sens. Fern 5% Clearweed 40%

ne _____

be _____

re _____

ff _____

f _____

su _____

m _____

Soil type: cl Organic Mineral

Rare Species (Local, Regional, Provincial):
Black Huckleberry (? locally s.g.)
Very uncommon in Middlesex county

Wildlife Notes:

SAR observations must also include a specific UTM location.
Forms: h=deciduous trees; c=coniferous trees; dh, dc, ds=dead trees/shrubs; ts=tall shrubs; ls=low shrubs; gc=ground cover; ne=narrow emergents; be=broad emergents; f=floating plants; ff=free-floating plants; su=submerged plants; m=mosses

Wetland Type: S=swamp; M=marsh; B=bog; F=fen

Site Type: L=lacustrine; P=palustrine; R=riverine; IS=isolated

Soil type: cl=clay/loam; sl=silt/loam; l=limestone; s=sand; hm=humic/mesic; f=fibric; g=granite Organic=>60cm depth over mineral (>10cm over bedrock) Mineral= <60cm depth over mineral

NATURAL RESOURCE SOLUTIONS INC

Modified ELC Community Description

Page 1 of 4

* KNP's phone abduction site

Site: 1231 Cornish WF
 Polygon: W00-015
 UTM: 17T 0439506 4774482
 Date: 26 Sept 2011 Time: 16:00
 Surveyor(s): KNP, HLW
 Weather: 19°C 100% cloud cover, no precipitation
 Windspeed 3 from SW

Community Classification

Vegetation Type: Dry-fresh white ash-hardwood deciduous forest
 Inclusion:
 Complex: FODM4-2

Polygon Description

System	Substrate	Topo Feature	Community
<input checked="" type="checkbox"/> Terrestrial	Organic	Lacustrine	Talus
<input type="checkbox"/> Wetland	<input checked="" type="checkbox"/> Mineral Soil	Riverine	Crevice/Cave
<input type="checkbox"/> Aquatic	Parent Min.	Bottomland	Alvar
	Acidic Bedrock	Terrace	Rockland
	Basic Bedrock	Valley Slope	Beach/Bar
History	Carb. Bedrock	<input checked="" type="checkbox"/> Tableland	Sand Dune
<input checked="" type="checkbox"/> Natural		Roll. Upland	Bluff
<input type="checkbox"/> Cultural		Cliff	Bog
Cover	Open Water	Plant Form	
<input type="checkbox"/> Open	Shallow Water	Plankton	Forb
<input type="checkbox"/> Shrub	<input checked="" type="checkbox"/> Surficial Dep.	Submerged	Lichen
<input checked="" type="checkbox"/> Treed	Bedrock	Floating-Lvd.	Bryophyte
		Graminoid	<input checked="" type="checkbox"/> Deciduous

Stand Description

Layer	HT	Cover	Species
* Super-canopy			
1 Canopy	2	4	White ash > Red elm
2 Sub-canopy	3	3	White ash > Red elm
3 Understorey	4/5	3	White ash > Red elm > European Buckthorn
4 Groundcover	6/7	4	Poison ivy > Virginia Creeper

HT Codes: 1: >25m 2: 25-10m 3: 10-2m 4: 2-1m 5: 1-0.5m 6: 0.5-0.2m 7: <0.2m

Cover Codes: 0: none 1: 0-10% 2: 10-25% 3: 25-60% 4: >60%

Size Class Analysis	< 10	10-24	25-50	> 50
Snags	R	R	R	N
Deadfall/Logs	O	O	R	N

Abundance Codes: N: None R: Rare O: Occasional A: Abundant

Community Age: Pioneer Young Mid-age Mature Old Growth

NATURAL RESOURCE SOLUTIONS INC

Modified ELC Community Description

Page 2 of 4

PLANT SPECIES LIST

Site: 1231 Cornish
 Polygon: W00-015
 UTM: 17T 0439506 4774482
 Date: 26 Sept 2011 Time: 16:00
 Surveyor(s): KNP, HLW
 Weather: 19°C, 100% cloud cover, no precip.
 Wind 3 from SW

Layers: 1=canopy 2=sub-canopy 3=understorey 4=ground layer

Abundance Codes: R=rare O=occasional A=abundant D=dominant

Species	Layer				Sample
	1	2	3	4	
W. Ash	A	O			
Red elm	O	O			
Red canopy grass					O
Cornus yellow					A
Aster sp.					A
New England aster					O
Trichlyne					O
Red raspberry					O
Poison ivy					A
Landlotion					R
Virginia creeper					A
Yellow axons					O
burdock					O
European buckthorn		O			

Other Notes (Landowner Contact, General Notes, etc.)

[Empty box for notes]

Wildlife Observation Form
NATURAL RESOURCE SOLUTIONS INC.

Site: Bornish 1231
 Polygon: WOB-015
 UTM: E: 0439506 N: 4774482, 17T
 Date: September 26, 2011 Time: 16:00
 Surveyor(s): HLW, KNP
 Weather: Overcast, 19°C, high cloud cover

Species Observed					Check for Wildlife Habitat that may be associated with an observation				
TY	Species	EV	Notes	#	TY	Species	EV	Notes	#
B	<u>Parus in case</u>	<u>VO</u>	<u>In flight</u>	<u>1</u>					
H	<u>Amphispiza</u>	<u>OB</u>		<u>2</u>					
L	<u>Parus</u>	<u>OB</u>		<u>1</u>					
L	<u>Parus</u>	<u>OB</u>		<u>3</u>					
L	<u>Parus</u>	<u>OB</u>		<u>1</u>					
L	<u>Parus</u>	<u>OB</u>		<u>1</u>					

Faunal Type Codes (TY)
 B=Bird M=Mammal H=Herpetofauna L=Lepidoptera F=Fish D=Dragonfly or Damselfly

Evidence Codes (EV)
Breeding Birds
 SH- Suitable Habitat
 SM- Singing Male
 T- Territory
 A- Anxiety Behavior
 D- Courtship Display
 N- Nest Building
 P- Pair
 V- Visiting Nest
 DD- Distraction Display
 NE- Nest with Eggs
 AE-Adult entering nest
 NU- Used nest
 FY- Fledged Young
 FS- Food/Fecal Sac

Other Wildlife
 OB- Observed
 DP- Distinctive Parts
 TK- Tracks
 VO- Vocalization
 HO- House/Den
 FE- Feeding Evidence
 CA- Carcass/Bones
 FY- Eggs or young
 SC- Scat
 SI- Other Signs (Specify)

Wildlife Habitat Form
NATURAL RESOURCE SOLUTIONS INC.

Site: Bornish 1231
 Polygon: WOB-015
 UTM: E: 0439506 N: 4774482, 17T
 Date: September 26, 2011 Time: 16:00
 Surveyor(s): HLW, KNP
 Weather: Overcast, 19°C, high cloud cover

Wildlife Habitat (Check all that apply AND record UTM / mark on map)
Habitats and Habitat Features are independent of wildlife observations

Habitat Type	Habitat Features	
<input checked="" type="checkbox"/> Deciduous Forest	Birds	Snakes
<input type="checkbox"/> Mixed Forest	<input type="checkbox"/> Spring Flooded Field	<input type="checkbox"/> Burrow
<input type="checkbox"/> Coniferous Forest	<input type="checkbox"/> Stick Nest (Raptors, Herons)	<input type="checkbox"/> Fallen Rotting Log
<input type="checkbox"/> Marsh	<input type="checkbox"/> Snag (Raptors, Herons)	<input type="checkbox"/> Old Well
<input type="checkbox"/> Swamp	<input type="checkbox"/> Tree Cavity Nest (Ducks)	<input checked="" type="checkbox"/> Rock Pile/Stone Wall
<input type="checkbox"/> Bog	<input type="checkbox"/> Seep/Spring (Turkeys/Grouse)	<input type="checkbox"/> Organics Pile
<input type="checkbox"/> Fen	<input type="checkbox"/> Cliffs/Banks	<input type="checkbox"/> Log Pile
<input type="checkbox"/> Water	Bats	<input type="checkbox"/> Karst
(Shallow & Open)	<input type="checkbox"/> Cave Entrance	<input type="checkbox"/> Broken/Fissured Rock
<input type="checkbox"/> Meadow	<input type="checkbox"/> Mine Shaft	<input type="checkbox"/> Old Foundation
<input type="checkbox"/> Tallgrass Prairie	<input type="checkbox"/> Snag (>20cm DBH)	<input type="checkbox"/> Old Bridge/Concrete Culvert
<input type="checkbox"/> Thicket	Mink/Otter/Fisher/Marten	Amphibians and Turtles
<input type="checkbox"/> Savannah	<input type="checkbox"/> Snag	<input type="checkbox"/> Vernal Pool/Woodland Pond (Amphibian Breeding)
<input type="checkbox"/> Woodland	<input checked="" type="checkbox"/> Burrow	<input type="checkbox"/> Sand (Turtle Nesting)
<input type="checkbox"/> Valley	<input type="checkbox"/> Den	<input type="checkbox"/> Fine/Sandy Gravel (Turtle Nesting)
(Describe Below)	<input type="checkbox"/> Tree Cavity	
<input type="checkbox"/> Headwater Area	<input type="checkbox"/> Fallen Log	Invertebrates
(check for Seeps/Springs)		<input type="checkbox"/> Crayfish Chimney
	Deer/Moose	
	<input type="checkbox"/> Seep/Spring	
	<input type="checkbox"/> Mineral Lick	

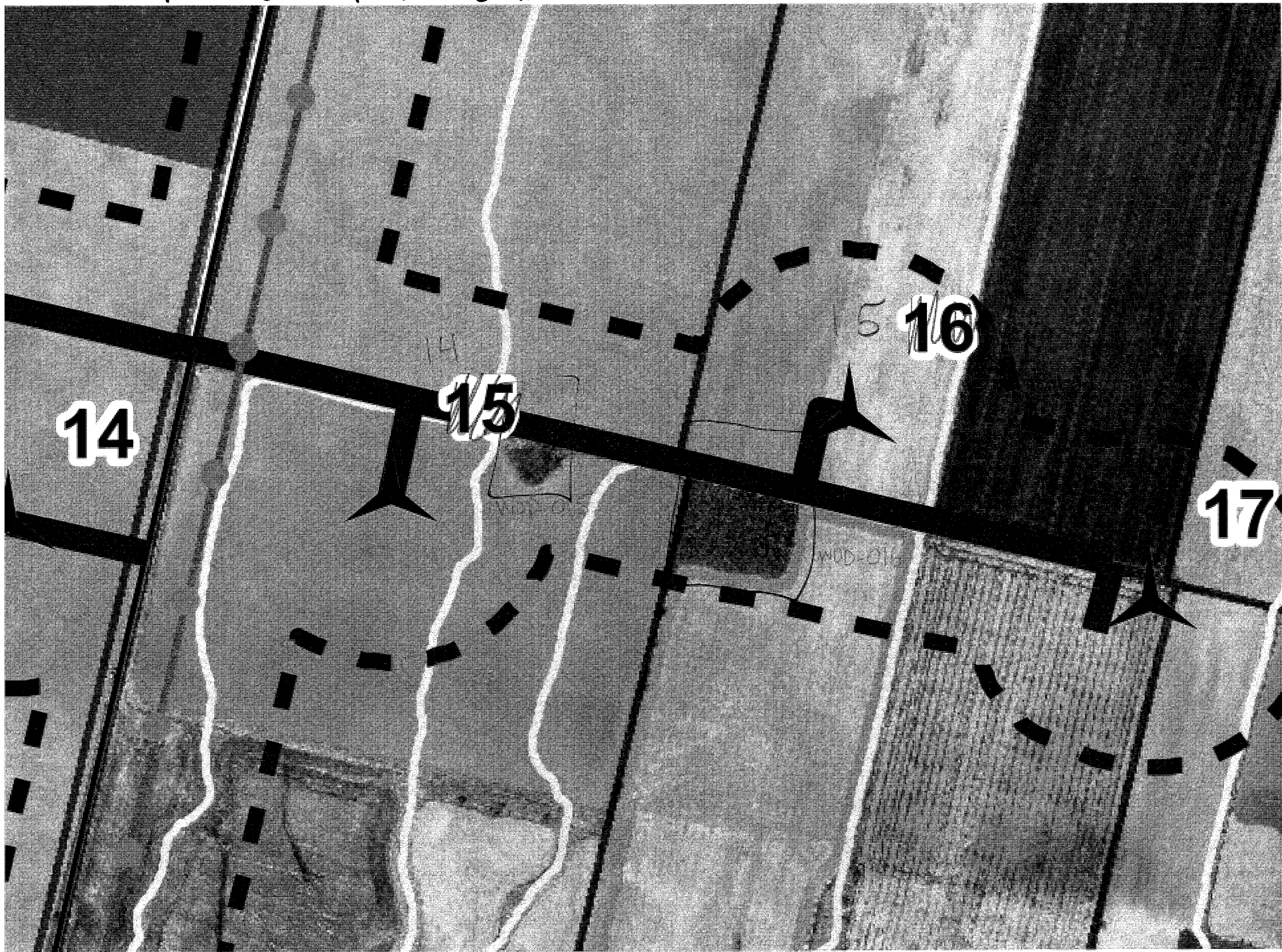
For every Habitat Type or Habitat Feature, record UTM below (for each occurrence) or mark on map

Habitat Feature:	UTM	Description
<u>Rock Pile</u>	<u>E: 0439506 N: 4774482</u>	<u>Collected during</u>
<u>Burrow</u>	<u>E: 0439506 N: 4774482</u>	<u>Edge of</u>
<u>Rock Pile</u>		<u>Shade (bush) with</u>
<u>Shrub (2-3) - small</u>		<u>Just over 20cm high</u>

Describe Valley (depth, geomorphological traits):

Additional Details:

Map 17 - ELC two Woodlots



11

NATURAL RESOURCE SOLUTIONS INC

Modified ELC Community Description

Page 1 of 1

*KNP's photo reduction site.

Site: 1231 - Barren NE
 Polygon: WOD-016
 UTM: 17T 0439643 4774480
 Date: 26 Sept 2011 Time: 10:11
 Surveyor(s): KNP MLW
 Weather: 17°C, 100% cloud cover, no precip. wind 3 from SW

Community Classification

Vegetation Type: Dry-fresh white ash-hardwood deciduous forest FODM4-2
 Inclusion:
 Complex:

Polygon Description

System	Substrate	Topo Feature	Community		
<input checked="" type="checkbox"/> Terrestrial	Organic	Lacustrine	Talus	Lake	Barren
<input type="checkbox"/> Wetland	Mineral Soil	Riverine	Crevice/Cave	Pond	Meadow
<input type="checkbox"/> Aquatic	Parent Min.	Bottomland	Alvar	River	Prairie
	Acidic Bedrock	Terrace	Rockland	Stream	Thicket
History	Basic Bedrock	Valley Slope	Beach/Bar	Marsh	Savannah
<input checked="" type="checkbox"/> Natural	Carb. Bedrock	<input checked="" type="checkbox"/> Tableland	Sand Dune	Swamp	Woodland
<input type="checkbox"/> Cultural		Roll, Upland	Bluff	Fen	<input checked="" type="checkbox"/> Forest
		Cliff		Bog	Plantation
Cover	Open Water	Plant Form			
<input type="checkbox"/> Open	Shallow Water	Plankton	Forb	Coniferous	
<input type="checkbox"/> Shrub	<input checked="" type="checkbox"/> Surficial Dep.	Submerged	Lichen	Mixed	
<input checked="" type="checkbox"/> Treed	Bedrock	Floating-Lvd.	Bryophyte		
		Graminoid	<input checked="" type="checkbox"/> Deciduous		

Stand Description

Layer	HT	Cover	Species
* Super-canopy			
1 Canopy	2	4	White ash > white elm > shagbark hickory > Sugar maple
2 Sub-canopy	3	4	White ash > W. elm > shagbark hickory > basswood
3 Understorey	1/2	3	Aspen sp > yellow cress > Sugar maple = W. ash
4 Groundcover	1/2	3	Poison ivy > garlic mustard > red rasp. berry = W. ash

HT Codes: 1: >25m 2: 25-10m 3: 10-2m 4: 2-1m 5: 1-0.5m 6: 0.5-0.2m 7: <0.2m
 Cover Codes: 0: none 1: 0-10% 2: 10-25 3: 25-60% 4: >60%

Size Class Analysis	< 10	10 - 24	25 - 50	N > 50
Snags	0	0	R	N > 50
Deadfall/Logs	0	0	R	N > 50

Abundance Codes: N: None R: Rare O: Occasional A: Abundant

Community Age: Pioneer Young Mid-age Mature Old Growth

NATURAL RESOURCE SOLUTIONS INC

Modified ELC Community Description

Page 1 of 1

PLANT SPECIES LIST

Site: 1231 Barrenish
 Polygon: WOD-016
 UTM: 17T 0439643 4774480
 Date: 26 Sept 2011 Time: 10:11
 Surveyor(s): KNP MLW
 Weather: 19°C, 100% c.c., no precip. wind 3 from SW

Layers: 1=canopy 2=sub-canopy 3=understorey 4=ground layer

Abundance Codes: R=rare O=occasional A=abundant D=dominant

Species	Layer				Sample	Species	Layer				Sample
	1	2	3	4			1	2	3	4	
White ash	R							A			
White elm											
Shagbark hickory				R							
Basswood											O
Sugar maple			O	O							R
Yellow cress			O	O							R
Poison ivy											O
Garlic mustard											O
Red raspberry											O

Other Notes (Landowner Contact, General Notes, etc.)

map 22 - ELC - check if same as WOD 011 /1231- WOD-018



22

2/3

no access

WOD 011

inclusion #2

check wetland area

WOD-018

A: Same as WOD-011

B: Open Woodland (sugar maple, basswood, shagbark, trembling aspen, goldenrod, asters, raspberry)

C: Meadow (goldenrod, asters, grasses, jewel weed)

D: wet area, silver maple, grasses sp., sedges sp.

E: Maple, Ash, shagbark woodland w/ beech

F: Ash dominated, with hickory, basswood, shagbark

G: (white elm, sugar maple, basswood, beech in sub canopy)

-some zig-zag goldenrod

1231 Bornish WOD-018

wetland evaluation Oct. 4/11

11:40 KMP, KJW

15°C sunny, CC 1090, W 4 from W

p. 303

W0D-018

11:40

15°C sunny, cc 10^{0/0}, windspeed 4 from W

Species:

lady's thumb

- sedge sp

Silver maple

- button bush

Riverbank grape

- Eastern cottonwood

phragmites

- Northern Bugweed

No blue flag iris

Cattail

cockle bur

Stinging nettle

black Elderberry

Wool grass

- high bush cranberry

- Bebb's willow

bittersweet nightshade

Site conditions

- Water inlet from field on west side

- Floodplain on north side

- Standing water up to ~ 30cm

- Cockle burr present in aquatic areas

- Open water inc. plants 15^{0/0} Open water no veg 5^{0/0}

- Agriculture in surrounding area (W^{est}/East sides)

↳ natural areas to North and South but agriculture beyond wetland limits

- high flood retention

p. 1 of 3



Wetland Vegetation Communities

Project Name: Bornish Project #: 1231

Observer(s): KMP, KJW

Date: 4 Oct 2011 Time (24h): 11:40

Field #: W0D 018 Weather: Precipitation: none Temp (°C): 15

Map Code: Wind Speed & Direction: 4 W Cloud %: 10

Wetland Type: Swamp Site Type: Palustrine Dominant Form: h

% Open Water: 5% ELC Code: SWDM3-2

Photos: OWES code: h5

Forms % (Circle those >25%) Species (dominant species, secondary species, present species)

h Silver maple 30%

c none

dc,dh,ds 2 dh (~30 dbh, unknown sp.)

ts silver maple, babbs willow, cottonwood, highbush cran-

ls buttonbush, silver maple saplings, elderberry, berry

gc

ne grass sp., sedge sp.

be cockle bur

re phragmites, lady's thumb

ff none

f none

su none

m moss sp.

Soil type:	Organic <input type="checkbox"/>	Mineral <input checked="" type="checkbox"/>
Rare Species (Local, Regional, Provincial):	Wildlife Notes: <u>blue jay °</u> <u>American crow °</u>	

SAR observations must also include a specific UTM location.

Forms: h=deciduous trees; c=coniferous trees; dh, dc, ds=dead trees/shrubs; ts=tall shrubs; ls=low shrubs; gc=ground cover; ne=narrow emergents; be=broad emergents; f=floating plants; ff=free-floating plants; su=submerged plants; m=mosses

Wetland Type: S=swamp; M=marsh; B=bog; F=fen

Site Type: L=lacustrine; P=palustrine; R=riverine; IS=isolated

Soil type: cl=clay/loam; sl=silt/loam; l=limestone; s=sand; hm=humic/mesic; f=fibric; g=granite Organic=>60cm depth over mineral (>10cm over bedrock) Mineral=<60cm depth over mineral

NATURAL RESOURCE SOLUTIONS INC

Modified ELC Community Description

Page 1 of 4

Site: Forest 123
 Polygon: W06-020
 UTM: 17T 0444379 4773207
 Date: September 27, 2011 Time: 12:42
 Surveyor(s): HLW, JNP
 Weather: Cloudy, 20°C, wind 3 from SE

Community Classification

Vegetation Type: Dry-fresh white pine naturalized
 Inclusion: coniferous plantation (FOCM6-1)
 Complex:

Polygon Description

System	Substrate	Topo Feature	Community
<input checked="" type="checkbox"/> Terrestrial	Organic	Lacustrine	Lake
<input type="checkbox"/> Wetland	Mineral Soil	Riverine	Pond
<input type="checkbox"/> Aquatic	<input checked="" type="checkbox"/> Parent Min.	Bottomland	River
	Acidic Bedrock	Terrace	Stream
	Basic Bedrock	Valley Slope	Marsh
History	Carb. Bedrock	<input checked="" type="checkbox"/> Tableland	Swamp
<input checked="" type="checkbox"/> Natural		Roll Upland	Fen
<input checked="" type="checkbox"/> Cultural		Bluff	Forest
	Site	Cliff	Bog
			<input checked="" type="checkbox"/> Plantation

Cover	Open Water	Plant Form
<input type="checkbox"/> Open	Shallow Water	Plankton
<input type="checkbox"/> Shrub	<input checked="" type="checkbox"/> Surficial Dep.	Submerged
<input checked="" type="checkbox"/> Treed	Bedrock	Floating-Lvd.
		Graminoid
		Forb
		Lichen
		Bryophyte
		Deciduous
		<input checked="" type="checkbox"/> Coniferous
		<input type="checkbox"/> Mixed

Stand Description

Layer	HT	Cover	Species
* Super-canopy			
1 Canopy	2	4	White Pine >> Black Walnut
2 Sub-canopy	3	3	White Pine >> Black Walnut >> White Birch
3 Understorey	4.5	4	Aster sp. >> Goldenrod sp.
4 Groundcover	4	4	Grass sp. >> Wild Strawberry

HT Codes: 1: >25m 2: 25-10m 3: 10-2m 4: 2-1m 5: 1-0.5m 6: 0.5-0.2m 7: <0.2m
 Cover Codes: 0:none 1: 0-10% 2: 10-25 3: 25-60% 4: >60%

Size Class Analysis	< 10	10-24	25-50	> 50
Snags	N	N	N	N
Deadfall/Logs	R	R	R	R

Abundance Codes: N: None R: Rare O: Occasional A: Abundant

Community Age	Pioneer	Young	Mid-age	Mature	Old Growth
			<input checked="" type="checkbox"/>		

NATURAL RESOURCE SOLUTIONS INC

Modified ELC Community Description

Page 2 of 4

PLANT SPECIES LIST

Site: Forest 123
 Polygon: W06-020
 UTM: 17T 0444379 4773207
 Date: September 27, 2011 Time: 13:43
 Surveyor(s): HLW, JNP
 Weather: Cloudy, 20°C, wind 3 from SE

Layers: 1=canopy 2=sub-canopy 3=understorey 4=ground layer

Abundance Codes: R=rare O=occasional A=abundant D=dominant

Species	Layer				Sample	Species	Layer				Sample	
	1	2	3	4			1	2	3	4		
E. Buckthorn			O			Brownel nightshade						
White Pine				D		Wild Strawberry	A					
Red-osier Dogwood		A				Goldenrod	D					
Black Walnut			A	A		Aster sp.						
Gray Dogwood		D				Riverbank Grape	D	D				
Green Ash			R			Canada Goldenrod		A				
Hawthorn sp.			R			Wild Strawberry		A				
White Ash			D			Black Dogwood		C				
Austrian Pine			R			Virginia Creeper		C				
						Bittersweet						
						Grass sp.		A				
						Red-bellied		C				
						Grass			2			

Other Notes (Landowner Contact, General Notes, etc.)

Photo 0574 - Spores in ground cover

