CLEVELAND METROPARKS Plant Community Assessment Program: Quality Control Form Cleveland Metroparks

Project Label: PCAP **Plot No:** 1236 **Date Sampled:** 7-16-12 **Lead:** Eysenbach

			Comment required if item answer is NO
Parking/Access outside of Park Boundaries:		Y (N)	If yes, write details in Comments section below
Field journals completed		(Y) N	
Site sketch made on 1:3000 map?		(Y) N	
Check cover page	X-axis Bearing of plot recorded	(Y) N	
	GPS coords. Recorded	(Y) N	
	North direction recorded	(Y) N	
	Photographs taken?	(Y) N	
Plot No., Date agreement on all pages?		(Y) N	
Header data completed all pages?		(Y) N	
Cover classes recorded in all Intensive modules		(Y) N	
Browse Level By Species		(Y) N	
Woody stem quality control check		(Y) N	
Invasive plant quality control check		(Y) N	
Ash trees mapped		Y N	N/A
Cover by Strata? (confirm cover type)		(Y) N	
Soil samples collected with matching plot #.		(Y) N	
Vouchers labeled on datasheet with initials and number		(Y) N	
Vouchers labeled on collection bag		(Y) N	
Pink flags removed		(Y) N	
Data sheet QA before leaving site?		(Y) N	
Common equipment returned to tub.		Y N	
Data sheets scanned?		NZ 7/25/12	Enter date to left
Final data sheets scanned?			Enter date to left
Buffer Widths measured?		(Y) N	KEL 10-29-12
Web Soil Survey		(Y) N	AJY 7-19-2012
Voucher Location	Refrigerator	Y N	
(# vouchers collected)	Press (#)		Enter number to left
SRE 545-547	Drier	Y N	
	Identified	(Y) N	
	Mounted	Y N	
	Thrown away	(Y) N	10-3-12 SRE

GRTS point verification: Is plot sampleable?	
☑ Yes	Original GRTS point is sampleable
☐ No	Original GRTS point lands in a non-sampleable area (fill in category below)
	☐ Point falls in a water (i.e. river, lake)
	☐ Managed mowed area (i.e. golf course, picnic area, right-of-way)
	☐ Paved area (i.e. parkinglot, road)
	☐ Unsafe to sample (i.e. steep slope)
	☐ Other

Additional Comments:

CLEVELAND METROPARKS Plant Community Assessment Program - Background Data Sheet

GENERAL INFORMATION

Project Label: PCAP

Project Name: DISC2012

Plot Name: A trail runs through it

Plot No.: 1236

☐ Level 4 (no nested corners sampled)

■ Level 5 (nested corners sampled)

Date (mm/dd/yyyy): 7/16/2012

End date (if > 1 day): / /

Party	Role**
S. Eysenbach	Plot leader
J. Pettit	Woody/Soils
L. Huffman	Woody/Soils

** Roles: Co-leader, Asst., Guide, Owner, Taxonomist, etc.

PLOT NOT SAMPLED: ☐ Other

☐ Perm. water ☐ Paved ☐ Slope ☐ Safety

SAMPLING QUALITY*

Effort Level:

☑ Very thorough

☐ Accurate

☐ Hurried

subjective evaluation of how much effort put into sampling. Hurried plots may still provide good data

TAXONOMIC ACCURACY

	high	modera.	low	not smpl
vascul.	✓			n/a
bryo			✓	
lichen				✓

TAXONOMIC STANDARD

Authority: G&C Pub Date: 1998

Minimum required fields in Bold and Underlined

LOCATION

State: OH County: Cuyahoga

Quadrangle: Chagrin Falls

Local Place Names: Sulpher Springs Drive

Landowner: CM

Data Confidentiality:

Check one: ☑ Public data ☐ Private Data

☐ Fuzz 100m ☐ Fuzz 250m ☐ Fuzz 500m

Reason:

If data not public why?

Source of coordinates ☐ MAP ■ GPS

Coordinate system:	Coord. Units
■ Lat/Long ☐ UTM ☐ StatePlane	■ deg ☐ deg min
☐ Other (*specify*)	■ m ☐ ft ☐

Datum: ■ NAD83/WGS84 ☐ NAD27

GPS location in plot x=0 to 5, y=-1,0,+1):

x = 0 y = -1 (base of plot x=0, y=0)

Latitude: 41.42325

Longitude: 81.41928

Coord. Accuracy: ☑ m ☐ ft +-23

GPS File Name: 1236

Plot size for cover data: 0.02 (hectares)

X-axis Bearing of plot: [58] °

Depth: (1-5): 4

Intensive modules: ~~1, 2, 3, 8, 9~~ 1, 2 (EDIT IF MODIFIED)

Camera No.: 2

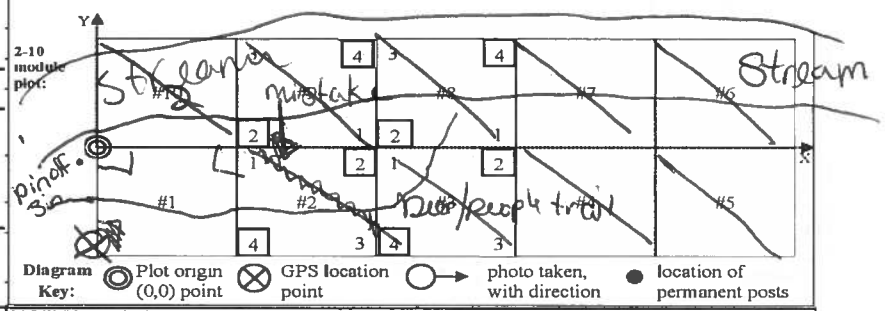
Photo Nos.: 1799

Plot placement: ☑ GRTS ☐ Representative

☐ Random ☐ Stratified Random ☐ Transect component

☐ Systematic (grid) ☐ Capture specific feature ☐ Other

*Definitions and values in CM PCAP FOM v. 1.0 and CVS Field Guide



NOTES: Include **Layout** (any unusual shape details), **Location** (directions and landscape content), **Rationale** (why here), and **Veg Characterization** (description of community, dominants, strata, BROWSE). Additional notes in space on back.

Layout. 1x2 * mod 1 corner 1 pin is off 3inches SW-very rocky

Location: Park along Sulpher Springs Walk northwest approx 70 m to stream

Rationale: GRTS pt fell along streambank. Only 2 mods would fit on the open densely vegetated floodplain not upland Placed stake at (0, -1) since GRTS pt was very rocky.

Veg Char: Canopy: Sugar maple, Sycamore, Walnut

sub/shrub: Sugar Maple, Spice Bush

OVER

Herb: Hog peanut, Aster, Wood Nettle

Dense herb layer w/good quality and disturbance species

CLEVELAND METROPARKS Plant Community Assessment Program Species Cover Data Sheet 2a Page 1 of 5

Project Label: PCAP Project name: CLSC2012 Plot no.: 1236

Total modules: 2 Intensive modules: 2 Plot configuration: 1x2 Plot area (ha): 0.02

Cleveland Metroparks

Br = Browse Level. Use cover classes to describe amount of browse per species over entire plot

Strata - Cov. entire plot

Estimate for each intensive module:

	mod 1	corner 1	mod 1	corner 2	mod 2	corner 4	mod 2	corner 2	mod	corner	mod	corner	mod	corner	mod	corner	mod R	corner R
	depth	cov	depth	cov	depth	cov	depth	cov	depth	cov	depth	cov	depth	cov	depth	cov	depth	cov
%open water	1	0			1	0			1				1					
%unvegetated open water	1	0			1	0			1				1					
%unveg. ground (bare soil)	1	5			1	4			1				1					
%unveg. litter (bare litter)	1	6			1	3			1				1					

T	S	H	(F)	(A)	Br	Species	c	Voucher #	depth	cov	depth	cov	depth	cov	depth	cov	depth	cov	depth	cov	depth	cov	depth	cov	depth	cov	depth	cov
		2				Lysimachia nummularia			4	2			2	2																
		2				Geum canadense			4	2			2	1																
		2				Myosotis sp.			4	2					3	1														
		5				Tussilago farfara			4	3	3		1	2																
		5			9	Aster (lateriflolius)			4	3	4				3	2														
		2				Ranunculus recurvatus			4	2			2	1																
		2				Taraxacum officinale			4	2	4				2	1														
Vn, muddy		2				Poaceae sp		C2-1800	4	2	3				2	1														
		3				Polygonum virginianum			4	2	2		2	2																
		1				Pilea pumila			1	1																				
		1				Impatiens sp.			4	1																				
		2				Oxalis stricta			3	2	4																			
		1				Carya sp. (seedling)			3	1																				
		3				Moss sp.			3	2	2		2	2																
4e dark ide bract nph?		4				Carex sp			3	2	4				3	2														
		4				Eupatorium rugosum			4	2	3				3	2														
		2				Acer sp (seedling)			3	1	2		2	1																
		2				Erigeron philadelphicus		Se	3	2																				
		1				~~Stellaria sp.~~ Galinsoga ciliata		quadriradiata	3	1																				
		2				Crataegus sp.			3	2	2		1	1																
		1				Helcus lanatus			3	2																				
		3				Prunella vulgaris			3	2	4																			
		1				~~Penstemon~~ Pentstamer sp.			2	1																				
		1				Ranunculus arbortivus			2	1																				
		2				Chaelea sensibius			2	1			1	2																

CLEVELAND METROPARKS Plant Community Assessment Program Species Cover Data Sheet 2a Page 2 of 5

Project Label: PCAP Project name: 01SC2012 Plot no.: 1236

Total modules: 1X2 Intensive modules: 2 Plot configuration: 1X2 Plot area (ha): 0.02

Cleveland Metroparks

Br = Browse Level. Use cover classes to describe amount of browse per species over entire plot

Strata - Cov. entire plot

Estimate for each intensive module:

	mod 1	corner 1	mod 1	corner 2	mod 2	corner 4	mod 2	corner 2	mod	corner	mod	corner	mod	corner	mod	corner	mod R	corner R
	depth	cov	depth	cov	depth	cov	depth	cov	depth	cov	depth	cov	depth	cov	depth	cov	depth	cov
%open water	1				1				1				1					
%unvegetated open water	1				1				1				1					
%unveg. ground (bare soil)	1				1				1				1					
%unveg. litter (bare litter)	1				1				1				1					

T	S	H	(F)	(A)	Br	Species	c	Voucher #	depth	cov	depth	cov	depth	cov	depth	cov	depth	cov	depth	cov	depth	cov	depth	cov	depth	cov	depth	cov
		1				(Ulmus sp. (Seedling)			2	1	3																	
		4				Viola sp.			2	3	4		2	3														
		1				Sisyrinchium ~~atlanticum~~ sp.			2	1																		
		3				Polystichum acrostichoides			2	2	3		2	2														
		5				Amphicarpa bracteata			2	3	2		3	3	2													
		3				Dryopteris carthusiana			2	2			2	2														
		1				~~Apiaceae~~ Osmorhiza claytonii		C2-1801	2	1			1	1														
		2				Arisaema triphyllum ssp. triphyllum			2	2	2		2	2														
		1				~~Unknown dicot~~ (Brassicaceae)		C2-1802	2	1																		
						Sanicula sp. → Cardamine parviflora SRE ID-3-12			2																			
		1				Fraxinus sp (Seedling)			2	1			3	1														
7						Betula lenta		SRE 516	2	4			4	6														
8	5					Acer saccharum			2	7			4	8	4													
	5	2				Lindera benzoin			2	3	2		2	5	3													
		2				Sanguinaria canadensis			2	2			2	2	2													
		2				Circaea lutetiana			2	2			2	2														
		1				Glyceria striata			2	1	4		2	1														
		3				Toxicodendron radicans			2	2			2	3														
		2				Panicum sp. (no fruit/flrs)			2	2			1	1														
		1				Leersia virginica			2	1	2		2	1														
		1				Hypericum punctatum			2	1																		
		1				Ligustrum vulgare			2	2																		
		4				Arctium lappa			2	2			1	1														
		1				Veronica officinale			2	1																		
		1				Lycopus sp.			2	1																		

arrow? molls

rdamine sp.

er tongue?

CLEVELAND METROPARKS Plant Community Assessment Program Species Cover Data Sheet 2a Page 3 of 5

Project Label: PCAP Project name: 01562012 Plot no.: 1236

Total modules: 2 Intensive modules: 2 Plot configuration: 1x2 Plot area (ha): 0.02

Cleveland Metroparks

Br = Browse Level. Use cover classes to describe amount of browse per species over entire plot

Strata - Cov. entire plot

Estimate for each intensive module:

	mod	corner	mod	corner	mod	corner	mod	corner	mod	corner	mod	corner	mod	corner	mod	corner	mod	corner
	1	1	1	2	2	4	2	2									R	R
	depth	cov	depth	cov	depth	cov	depth	cov	depth	cov	depth	cov	depth	cov	depth	cov	depth	cov
%open water	1				1				1				1					
%unvegetated open water	1				1				1				1					
%unveg. ground (bare soil)	1				1				1				1					
%unveg. litter (bare litter)	1				1				1				1					

T	S	H	(F)	(A)	Br	Species	c	Voucher #	mod depth	mod cov	corner depth	corner cov	mod depth	mod cov	corner depth	corner cov	mod depth	mod cov	corner depth	corner cov	mod depth	mod cov	corner depth	corner cov	mod depth	mod cov	corner depth	corner cov	mod depth	mod cov	corner depth	corner cov
		8			10	Aster sp		C21803	2	6	3						2	8													
		1				Unk dicot Stellaria sp.		C21804	2	1																					
		1				Rhamnus frangula SRE 10-3-11			2	1			1	2																	
		3				Cryptotaenia canadensis			2	3	3																				
		3				Hydrophyllum canadense			2	2			1	2																	
		2				Allium tricoccum			2	1							2	1													
		2				Rumex obtusifolia			2	2	3																				
		3				Euonymus oboratus					2	2																			
		2				Parthenocissus quinquefolia			1	2							2	2													
	2	2				Liriodendron tulipifera			2	2	2		1	2																	
		1				Actea alba			1	1																					
		4			1	Solidago flexicaulis					4	3	4	3	2																
		3			1	Lysimachia ciliata					4	2	2	1																	
		1				Caulophyllum thalictroides			1	1																					
		1				Epipactis helleborine			1	1																					
		5				Impatiens canadensis					2	4	1	3																	
		2				Galium triflorum SRE 10-3-12 X		SRE545	2	2	3			2	2	2															
		2			6	Maianthemum racemosum					4	1	1	2																	
		3				Dryopteris marginalis					2	3	1	2																	
		3				Geranium maculatum			1	2			2	2	3																
		2				Bottlebrush Elymus hystrix			1	2			2	2	3																
		2				Thalictrum pubescens					2	2																			
		2				Vitis riparia					2	2																			
		1				Hesperis matronalis			1	1			1	1																	
		2				Poaceae (thin wires)		C21808			2	2																			

CLEVELAND METROPARKS Plant Community Assessment Program Species Cover Data Sheet 2a Page 4 of 5

Project Label: PCAP Project name: 015C2012 Plot no.: 1236

Total modules: 2 Intensive modules: 2 Plot configuration: 1X2 Plot area (ha): 0.02

Cleveland Metroparks

Br = Browse Level. Use cover classes to describe amount of browse per species over entire plot

Strata - Cov. entire plot

Estimate for each intensive module:
%open water
%unvegetated open water
%unveg. ground (bare soil)
%unveg. litter (bare litter)

T	S	H	(F)	(A)	Br	Species	c	Voucher #	mod	corner	mod	corner	mod	corner	mod	corner	mod	corner	mod	corner	mod	corner	mod	corner	mod	corner	mod	corner
									1	1	1	2	2	4	2	2											R	R
									depth	cov	depth	cov	depth	cov	depth	cov	depth	cov	depth	cov	depth	cov	depth	cov	depth	cov	depth	cov
						%open water			1				1						1				1							
						%unvegetated open water			1				1						1				1							
						%unveg. ground (bare soil)			1				1						1				1							
						%unveg. litter (bare litter)			1				1						1				1							
		2				Quercus sp (seedling)			1	1																				
		3				Celastrus orbiculatus			1	2																				
5						Ulmus rubra					4	4	1	2																
		1				~~Euonymus~~ Erechtites hieracifolia			1	1																				
		2				Berberis thunbergii			1	2																				
	2					Carya glabra					3	2																		
		3				Deparia acrostichoides					2	2	1	2																
	6	2				Lonicera morrowii					3	4	1	4																
		1				Iris sp.					2	1																		
		1				Poaceae (Cinna?)		C2-1809			4	1																		
		1				Senecio obovatus					4	1																		
		2				Ranunculus hispidus					3	2	2	2	3															
		1			1b	Lobelia sp					3	1																		
		1				Unknown dicot (hairy alter, creepy)		C2-1810, 1811			3	1																		
6						Quercus rubra					4	3			2	6														
		1				Blephilia ciliata (mint)					2	1	1	1																
		1				Agrimonia striata					2	1	1	1																
	2					Rubus allegheniensis			1	2																				
		1				Pinus sp (seedling)			2	1																				
		1				Solidago canadensis			1	1																				
		1				Carex sp		C2-1812	1	1																				
		2				~~Poa sp~~ Poaceae		C2-1813	1	1			2	2																
6						Platanus occidentalis			1	6																				
		2				Equisetum arvense			1	1			2	1	2															
	3				1b	Ostrya virginiana							2	2																

Purple

CLEVELAND METROPARKS Plant Community Assessment Program Species Cover Data Sheet 2a Page 5 of 5

Project Label: PCAP Project name: 015C2012 Plot no.: 1236

Total modules: 2 Intensive modules: 2 Plot configuration: 1x2 Plot area (ha): 0.02

Cleveland Metroparks

Br = Browse Level. Use cover classes to describe amount of browse per species over entire plot

Strata - Cov. entire plot

Estimate for each intensive module:

	mod 1	corner 1	mod 1	corner 2	mod 2	corner 2	mod 2	corner 2	mod	corner	mod	corner	mod	corner	mod	corner	mod R	corner R
	depth	cov	depth	cov	depth	cov	depth	cov	depth	cov	depth	cov	depth	cov	depth	cov	depth	cov
%open water	1				1				1				1					
%unvegetated open water	1				1				1				1					
%unveg. ground (bare soil)	1				1				1				1					
%unveg. litter (bare litter)	1				1				1				1					

T	S	H	(F)	(A)	Br	Species	c	Voucher #	depth	cov	depth	cov	depth	cov	depth	cov	depth	cov	depth	cov	depth	cov	depth	cov	depth	cov	depth	cov
		1				Podophyllum peltatum									2	2												
		5				Carex sp.		C2 1826							1	5												
		1				Carex platanegea											4	1										
2	2				10	Tilia americana											4	3										
		3				Carex sp. (super fuzzy, wide)											2	3										
		2				Sanicula gregaria											2	2										
		2				Anemonella thalictroides											2	2										
		1				Prenanthes sp.									1	1												
		2				Tiarella cordifolia									1	2												
	2					Fagus grandifolia									1	2												
		1				Epilobium coloratum									1	1												
		2				Trillium cernuum (nodding)									1	2												
		1				Viburnum dentatum									1	1												
		1				Cornus sp.									1	1												
		2				Hackelia virgiana									1	2												
4						Fraxinus sp.					4	3																
		1				~~Unknown dicot~~ ~~Collinsonia canadensis~~		C21824-25 SRE 10-3-12							1	1												
		2				Collinsonia canadensis									1	2												
		1				Alliaria petiolata									1	1												
		1				Unk dicot		SRE 547							1	1												
7						Juglans nigra									1	4												
	2					Prunus serotina			1	2																		

combine

CLEVELAND METROPARKS Plant Community Assessment Program Natural Woody Stem Data Sheet

Cleveland Metroparks

Project Label: PCAP Project Name: 01 SC 2012 Plot No.: 1236 Page: 1 of 1

Explain subsample (additional room on back):

mod #	species	c	voucher#	# stems 0-1.4m browsed	% sub or super sample	# shrub clumps	size class (cm) woody stems >1.4m 1 0-<1	2 1-<2.5	3 2.5-<5	4 5-<10	5 10 - <15	6 15 - <20	7 20 - <25	8 25 - <30	9 30 - <35	10 35 - <40	11 >40 (record each tree)
1	Acer saccharum								•	••	•	•					
1	Betula lenta													•			
1	Platanus occidentalis																58.9
1	Ulmus rubra												•				
1	Standing Dead											•					
1	Lonicera morrowii					5											
1	Lindera benzoin					5											
1	Berberis thunbergii					•											
1	Rubus alleghaniensis					•											
2	Acer saccharum									••			•				
2	Ulmus ~~sp.~~ rubra							•									
2	Juglans nigra													•			
2	Lindera benzoin					••											
1	Ostrya virginiana			1													

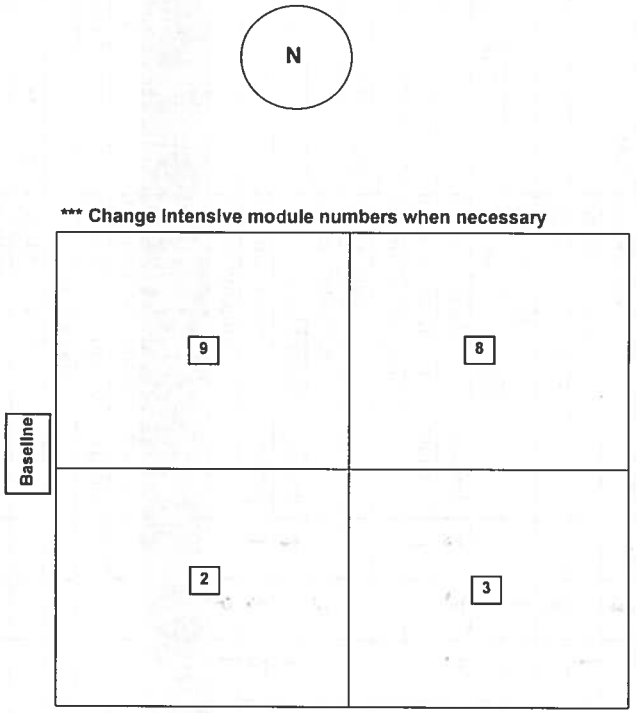
3aCM PCAP Natural Woody Stem Data Sheet ver 2.0.xls last revised 5/29/2012 jjm

Natural Resources Management FORM NR/2010-03a

CLEVELAND METROPARKS Emerald Ash Borer - Fraxinus Sheet *INTENSIVE MODULES ONLY* *TREES ≥ 10CM ONLY*

Project Label: PCAP Project Name: 01SC2012 Plot No.: 1236 Date: 16 JULY 2012

Module	Tree ID.	Species	Dead	c	Voucher #	DBH (cm)	Ht @ DBH	ASH Only: Ash condition	*Dead condition	# Exit holes	Epicormic present	Woodpecker holes
	1	No Ash										
	2											
	3											
	4											
	5											
	6											
	7											
	8											
	9											
	10											
	11											
	12											
	13											
	14											
	15											
	16											
	17											
	18											
	19											
	20											
	21											
	22											
	23											
	24											
	25											



Map all ash trees ≥10cm in each module using Tree ID number

*** If Ash Condition scores 5 (dead) provide breakup score (A-E)**
Count EAB exit holes 1.25m≥ x ≥1.5m
Woodpecker and epicormic marked present (1) or absent (0)

CLEVELAND METROPARKS Plant Community Assessment Program - Soils, Crown Cover, Standing Biomass Data Sheet 6a

Project label: PCAP Project Name: 01SC2012 Plot No.: 1236

Cleveland Metroparks

SOIL PIT DESCRIPTION: Excavate 20 cm plug wih shovel. Describe using Munsell chart, visual exam, texture, and odor.

Soil pit module # 1 (one per entire plot)

5 cm	matrix color	2.5Y 3/2	
	mottle color	N/A	
	%mottle	0	
	oxid roots	Y	(N)
	texture*	1	
	redox features**	Y	(N)
	hydr. cond.***	I S (M) D	
20 cm	matrix color	7.5YR 3/1	
	mottle color	N/A	
	%mottle	0	
	oxid roots	Y	(N)
	texture*	1	
	redox features**	Y	(N)
	hydro. cond.***	I S M (D)	

* refer to texture classes on reverse side

** e.g. hydrogen sulfide odor, gleying, etc.

*** Circle one: I=indundated S=saturated M=moist D=dry

Notes: include evidence of earthworms (worms, castings, middens)

No evidence of earthworms.

SOIL SAMPLES Standard procedure: collect a soil sample of the top 10 cm of soil from center of each intensive module and composite the sample

Soil Collection Module	Horizon (A, B, C)
1, 2 ~~2 3 4~~ composited	A

Soil Series/Type: Fredsville silt loam

Soil Series Source: Ohio Soil Survey

Landform type: Drainageways 76.15cm

Depth to rest. Layer: 20 to 40 inches ✓ to paralithic bedrock

Parent Material: Residuum from shale

- ☐ Excessively dr.
- ☐ Somewhat excessively
- ☒ Well drained
- ☐ Moderately well dr.
- ☐ Somewhat poorly dr.
- ☐ Very poorly dr.
- ☐ Impermeable surface

AJY 7/9-12

SOIL DEPTH MEASUREMENT: Measure to the nearest 0.1 cm in center of intensive modules. If >30.5 cm, record as >30

mod#	1 litter+ organic depth (cm)	2 litter depth (cm)	water depth (cm)	depth sat soil (cm)	
1	2.5	2.5	0	~~0~~	>30
2	2.75	2.75	0	~~0~~	>30

EARTH SURFACE & GROUND COVER

Underlying Earth Surface*		Ground Cover	
(Sum = 100%)	percent	(Each ≤ 100%)	percent
Histosol	0	Coarse Woody Debris***	20
Mineral Soil	100	Fine Woody Debris****	2
Gravel-Cobble*	0	Litter	18
Boulder**	0	Duff (Ferm.+ Humus)	0
Bedrock	0	Bryophyte- Lichen	6
* Gravel-Cobble = 1/16-10"		Water	0
**Boulder = > 10 in		Bare Soil	2
*** >5 cm in diameter		Road/Trail	~~8~~15
**** <5 cm in diameter		Other	0

TRAIL INFORMATION:

record type and cover for each

Type	%Cover
☐ All Purpose	0
☐ Bridle	0
☐ Hiking sanctioned	0
☒ Bootleg unsanctioned	~~8~~15
☐ Gravel	0
☐ Deer	0

COVER BY STRATA %

estimate using midpoints of 5,ex:3, 8, 13

Strata	Height Range (m)	Total Cover (%)
Tree	5 - X	73
Shrub	0.5 - 5	33
Herb	X - 0.5	83
(Floating)*	- - -	-
(Aquatic)*	- - -	-

* rooted and floating or slightly emersed

** submersed, most plant mass below surface

SEE BACK OF PAGE FOR "TYPICAL"STRATA DESCRIPTIONS. STRATA CAN VARY BY COVER TYPE.

STAND SIZE

- ☐ >600 x plot size
- ☐ > 100 x plot size
- ☐ 10-100 x plot size
- ☐ 3-10 x plot size
- ☐ 1-3 x plot size
- ☒ < plot size

CLEVELAND METROPARKS Plant Community Assessment Program - Plant Cover and Earth Surface

Project Label: PCAP Project Name: 01SC2012 Plot No.: 1236

Cleveland Metroparks

STANDING BIOMASS (required for emergent wetlands): collected in 0.1m clip plots (32x32 cm) from corners 1 and 3 in each intensive module. Required for VIBI-E score calculation. C?=check when collected

Module #	C?	Corner	Corner

CLASSIFICATION

(FIT = excellent, g Fit and Confidence

Hydrogeomorphic class (WETLANDS ONLY):

- □ DEPRESSION Fit=___ Conf=___
- □ IMPOUNDMENT □ Beaver □ Human Fit=___ Conf=___
- □ RIVERINE □ Headwater □ Mainstem □ Channel Fit=___ Conf=___
- □ SLOPE (ground water hydrology or on a physical slope) Fit=___ Conf=___
- □ FRINGING □ Reservoir □ Natural Lake Fit=___ Conf=___
- □ COASTAL (specify subclass) Fit=___ Conf=___
- □ BOG (strongly, moderately, weekly ombrotrophic) Fit=___ Conf=___

Ohio EPA VIBI Plant Community Class (WETLANDS ONLY):

- □ FOREST □ swamp forest □ bog forest □ forest seep Fit=___ Conf=___
- □ EMERGENT □ marsh □ wet meadow □ open bog Fit=___ Conf=___
- □ SHRUB □ shrub swamp □ tall sh. bog □ tall sh. fen Fit=___ Conf=___

McNAB INDICES (degrees) + for up - for down

[FILLED OUT USING GIS PROGRAM - DO NOT FILL OUT IN FIELD]

		LFI*	TSI**
At aspect	N		
+45 degrees	NE		
+90 degrees	E		
+135 degrees	SE		
+180 degrees	S		
+225 degrees	SW		
+270 degrees	W		
+315 degrees	NW		

LFI is angle of plot to the horizon. TSI is angles formed by local slopes. For TSI measure angle from recorders eye to eye of person standing ~10 m away.

* Landform Index (position within landscape)

** Terrain Shape Index (site microtopographic shape)

MICROTOPOGRAPHIC FEATURE COUNTS - Intensive modules only

Ranks for microhabitat features. Select one or select two and average the score.NOTE: If mod falls on a slope automatically gets ranked based on steepness (1-3) to begin + any features present

Slope 1 = slight elevational grade across module (hill) Slope 2 = falls on slope ~20° Slope 3 = maximum steepness that can be safely sampled ~45°

0 feature is absent or functionally absent from the wetland

3 feature is present in the wetland in very small amounts or if more common, of low quality

7 feature is present in moderate amounts, but not of highest quality, or in small amounts of highest quality

10 feature is present in moderate or greater amounts and of highest quality

c.w.d. - count for pieces with minimum 1m length

mod#	corner	no. of tussocks depth 3 1x1m (count)	no. of hummocks uplands (Tip-Ups) depth 2 3.16x3.16m (count)	no. macro. depressions depth 1 10x10m (count)	c.w.d (2-12 cm) depth 1 10x10m (count)	c.w.d (12-40cm) depth 1 10x10m (count)	c.w.d >40 cm depth 1 10x10m (count)	microhab. interspers. depth 1 10x10m (rank)	microhab. SLOPE 10x10m (rank)
1	—	0	0	1	17	4	3	4	1
2	—	0	0	2	7	1	0	3	0

NOTE: tussock and hummocks are counted in BOTH nested quadrat corners but counts are aggregated.

1 17 4 3

1 16 5 3

2 7 1 0

2 8 1 0

CROWN COVER (DENSIOMETER)

Make 4 readings per module facing N, S, E, W. Place dot count in corresonding space (4 dots per grid square)

Module	N	S	E	W
2	20	2	3	21
3	2	2	4	9
8	—	—	—	—
9	—	—	—	—

1-2 14 2 1 27

1 26 1 4 15

2 2 1 4 6

3 2 5 11

FORM B-1: BUFFER SAMPLE PLOTS (Front)

Reviewed by (initial): _____

Site ID: PCAP SC 1236 DATE: 07/16/2012

Location: ● AA Center ○ N ○ S ○ E ○ W

Fill in bubble(s) if plot(s) could not be sampled and flag → ○ Plot 1 ○ Plot 2 ○ Plot 3 | 1

Buffer Natural Cover Strata

Fill in bubbles for all that apply: Canopy Type: D = Deciduous; E = Evergreen. Leaf Type: B = Broadleaf; N = Needle Leaf. Absent: No tree canopy.
Strata Section: Fill in appropriate cover class bubble for each strata type for each plot. 0 = Absent; 1 = Sparse(<10%); 2=Moderate(10-40%); 3 = Heavy (40-75%); 4 = Very Heavy (>75%)

Buffer Plot 1 (Canopy Type: ● E, Absent: ○, Leaf Type: ● N, Flag)	0	1	2	3	4	Flag
Big Trees (>0.3m DBH)	○	○	●	○	○	
Small Trees (<0.3m DBH)	○	○	○	○	●	
Woody Shrubs, Saplings (0.5m-5m HIGH)	○	○	○	●	○	
Woody Shrubs, Saplings (<0.5m HIGH)	○	●	○	○	○	
Herbs, Forbs and Grasses	○	○	○	●	○	
Bare ground	○	●	○	○	○	
Litter, duff	○	○	○	●	○	
Rock	●	●	○	○	○	
Water	●	○	○	○	○	
Submerged Vegetation	●	○	○	○	○	

Buffer Plot 2 (Canopy Type: ○ D ● E, Absent: ○, Leaf Type: ○ B ○ N, Flag)	0	1	2	3	4	Flag
Big Trees (>0.3m DBH)	○	○	○	○	○	
Small Trees (<0.3m DBH)	○	○	○	○	○	
Woody Shrubs, Saplings (0.5m-5m HIGH)	○	○	○	○	○	
Woody Shrubs, Saplings (<0.5m HIGH)	○	○	○	○	○	
Herbs, Forbs and Grasses	○	○	○	○	○	
Bare ground	○	○	○	○	○	
Litter, duff	○	○	○	○	○	
Rock	○	○	○	○	○	
Water	○	○	○	○	○	
Submerged Vegetation	○	○	○	○	○	

Buffer Plot 3 (Canopy Type: ○ D ○ E, Absent: ○, Leaf Type: ○ B ○ N, Flag)	0	1	2	3	4	Flag
Big Trees (>0.3m DBH)	○	○	○	○	○	
Small Trees (<0.3m DBH)	○	○	○	○	○	
Woody Shrubs, Saplings (0.5m-5m HIGH)	○	○	○	○	○	
Woody Shrubs, Saplings (<0.5m HIGH)	○	○	○	○	○	
Herbs, Forbs and Grasses	○	○	○	○	○	
Bare ground	○	○	○	○	○	
Litter, duff	○	○	○	○	○	
Rock	○	○	○	○	○	
Water	○	○	○	○	○	
Submerged Vegetation	○	○	○	○	○	

Stressor Presence/Absence - Confirm that a filled data bubble indicates presence and an unfilled bubble indicates absence by filling this bubble. ●

Residential and Urban Stressors

Fill bubble if present - Plot	1	2	3	Flag
Road - gravel	○	○	○	
Road - two lane	○	○	○	
Road - four lane	○	○	○	
Parking Lot/Pavement	○	○	○	
Golf Course	○	○	○	
Lawn/Park	○	○	○	
Suburban Residential	○	○	○	
Urban/Multifamily	○	○	○	
Landfill	○	○	○	
Dumping	○	○	○	
Trash	○	○	○	
Other: _____	○	○	○	
Other: _____	○	○	○	

Hydrology Stressors

Fill bubble if present - Plot	1	2	3	Flag
Ditches, Channelization	○	○	○	
Dike/Dam/Road/RR Bed (IMPEDE FLOW)	○	○	○	
Water Level Control Structure	○	○	○	
Excavation, Dredging	○	○	○	
Fill/Spoil Banks	○	○	○	
Freshly Deposited Sediment (UNVEGETATED)	○	○	○	
Soil Loss/Root Exposure	○	○	○	
Wall/Riprap	○	○	○	
Inlets, Outlets	○	○	○	
Point Source/Pipe (EFFLUENT OR STORMWATER)	○	○	○	
Impervious surface input (SHEETFLOW)	○	○	○	
Other: _____	○	○	○	
Other: _____	○	○	○	

Agricultural & Rural Stressors

Fill bubble if present - Plot	1	2	3	Flag
Pasture/Hay	○	○	○	
Range	○	○	○	
Row Crops	○	○	○	
Fallow Field (RECENT-RESTING ROW CROP FIELD)	○	○	○	
Fallow Field (OLD - GRASS, SHRUBS, TREES)	○	○	○	
Nursery	○	○	○	
Dairy	○	○	○	
Orchard	○	○	○	
Confined Animal Feeding	○	○	○	
Rural Residential	○	○	○	
Gravel Pit	○	○	○	
Irrigation	○	○	○	
Other: _____	○	○	○	

Industrial Development Stressors

Fill bubble if present - Plot	1	2	3	Flag
Oil Drilling	○	○	○	
Gas Wells	○	○	○	
Mine (surface)	○	○	○	
Mine (underground)	○	○	○	
Military	○	○	○	
Other: _____	○	○	○	
Other: _____	○	○	○	
Other: _____	○	○	○	

Habitat/Vegetation Stressors

Fill bubble if present - Plot	1	2	3	Flag
Forest Clear Cut	○	○	○	
Forest Selective Cut	○	○	○	
Tree Plantation	○	○	○	
Tree Canopy Herbivory (INSECT)	○	○	○	
Shrub Layer Browsed (WILD OR DOMESTIC)	●	○	○	
Highly Grazed Grasses (OVERALL <3" HIGH)	○	○	○	
Recently Burned Forest Canopy	○	○	○	
Recently Burned Grassland (BLACKENED)	○	○	○	

Fill bubble if present - Plot	1	2	3	Flag
Herbicide Use	○	○	○	
Mowing/Shrub Cutting	○	○	○	
Trails	●	○	○	2
Soil Compaction (ANIMAL OR HUMAN)	○	○	○	
Offroad vehicle damage	○	○	○	
Soil erosion (FROM WIND, WATER, OR OVERUSE)	○	○	○	
Other: _____	○	○	○	
Other: _____	○	○	○	

Flag codes: K = No measurement made, U = Suspect measurement., F1,F2, etc. = misc. flags assigned by each field crew.
Explain all flags in comment section on the back of this form

2428168304

FORM B-1: BUFFER SAMPLE PLOTS (Front)

Reviewed by (initial): _____

Site ID: PCAP SC 1236 DATE: 07/16/2012

Location: ○ AA Center ● N ○ S ○ E ○ W

Fill in bubble(s) if plot(s) could not be sampled and flag → ○ Plot 1 ● Plot 2 ● Plot 3 | 1

Buffer Natural Cover Strata

Fill in bubbles for all that apply: Canopy Type: D = Deciduous; E = Evergreen. Leaf Type: B = Broadleaf; N = Needle Leaf. Absent: No tree canopy.
Strata Section: Fill in appropriate cover class bubble for each strata type for each plot. 0 = Absent; 1 = Sparse(<10%); 2=Moderate(10-40%); 3 = Heavy (40-75%); 4 = Very Heavy (>75%)

Buffer Plot 1	Canopy Type: ● E	Leaf Type: ● N	Absent: ○	Flag
Big Trees (>0.3m DBH)	0	● 1	2	3	4	
Small Trees (<0.3m DBH)	0	1	2	3	● 4	
Woody Shrubs, Saplings (0.5m-5m HIGH)	0	1	2	● 3	4	
Woody Shrubs, Saplings (<0.5m HIGH)	0	● 1	2	3	4	
Herbs, Forbs and Grasses	● 0	1	2	3	4	
Bare ground	● 0	1	2	3	4	
Litter, duff	0	1	2	3	● 4	
Rock	● 0	1	2	3	4	
Water	● 0	1	2	3	4	
Submerged Vegetation	● 0	1	2	3	4	

Buffer Plot 2	Canopy Type: D E	Leaf Type: B N	Absent: ○	Flag
Big Trees (>0.3m DBH)	0	1	2	3	4	
Small Trees (<0.3m DBH)	0	1	2	3	4	
Woody Shrubs, Saplings (0.5m-5m HIGH)	0	1	2	3	4	
Woody Shrubs, Saplings (<0.5m HIGH)	0	1	2	3	4	
Herbs, Forbs and Grasses	0	1	2	3	4	
Bare ground	0	1	2	3	4	
Litter, duff	0	1	2	3	4	
Rock	0	1	2	3	4	
Water	0	1	2	3	4	
Submerged Vegetation	0	1	2	3	4	

Buffer Plot 3	Canopy Type: D E	Leaf Type: B N	Absent: ○	Flag
Big Trees (>0.3m DBH)	0	1	2	3	4	
Small Trees (<0.3m DBH)	0	1	2	3	4	
Woody Shrubs, Saplings (0.5m-5m HIGH)	0	1	2	3	4	
Woody Shrubs, Saplings (<0.5m HIGH)	0	1	2	3	4	
Herbs, Forbs and Grasses	0	1	2	3	4	
Bare ground	0	1	2	3	4	
Litter, duff	0	1	2	3	4	
Rock	0	1	2	3	4	
Water	0	1	2	3	4	
Submerged Vegetation	0	1	2	3	4	

Stressor Presence/Absence - Confirm that a filled data bubble indicates presence and an unfilled bubble indicates absence by filling this bubble. ●

Residential and Urban Stressors				
Fill bubble if present - Plot	1	2	3	Flag
Road - gravel	○	○	○	
Road - two lane	○	○	○	
Road - four lane	○	○	○	
Parking Lot/Pavement	○	○	○	
Golf Course	○	○	○	
Lawn/Park	○	○	○	
Suburban Residential	○	○	○	
Urban/Multifamily	○	○	○	
Landfill	○	○	○	
Dumping	○	○	○	
Trash	○	○	○	
Other: _____	○	○	○	
Other: _____	○	○	○	

Hydrology Stressors				
Fill bubble if present - Plot	1	2	3	Flag
Ditches, Channelization	○	○	○	
Dike/Dam/Road/RR Bed (IMPEDE FLOW)	○	○	○	
Water Level Control Structure	○	○	○	
Excavation, Dredging	○	○	○	
Fill/Spoil Banks	○	○	○	
Freshly Deposited Sediment (UNVEGETATED)	○	○	○	
Soil Loss/Root Exposure	○	○	○	
Wall/Riprap	○	○	○	
Inlets, Outlets	○	○	○	
Point Source/Pipe (EFFLUENT OR STORMWATER)	○	○	○	
Impervious surface input (SHEETFLOW)	○	○	○	
Other: _____	○	○	○	
Other: _____	○	○	○	

Agricultural & Rural Stressors				
Fill bubble if present - Plot	1	2	3	Flag
Pasture/Hay	○	○	○	
Range	○	○	○	
Row Crops	○	○	○	
Fallow Field (RECENT-RESTING ROW CROP FIELD)	○	○	○	
Fallow Field (OLD - GRASS, SHRUBS, TREES)	○	○	○	
Nursery	○	○	○	
Dairy	○	○	○	
Orchard	○	○	○	
Confined Animal Feeding	○	○	○	
Rural Residential	○	○	○	
Gravel Pit	○	○	○	
Irrigation	○	○	○	
Other: _____	○	○	○	

Industrial Development Stressors				
Fill bubble if present - Plot	1	2	3	Flag
Oil Drilling	○	○	○	
Gas Wells	○	○	○	
Mine (surface)	○	○	○	
Mine (underground)	○	○	○	
Military	○	○	○	
Other: _____	○	○	○	
Other: _____	○	○	○	
Other: _____	○	○	○	

Habitat/Vegetation Stressors				
Fill bubble if present - Plot	1	2	3	Flag
Forest Clear Cut	○	○	○	
Forest Selective Cut	○	○	○	
Tree Plantation	○	○	○	
Tree Canopy Herbivory (INSECT)	○	○	○	
Shrub Layer Browsed (WILD OR DOMESTIC)	○	○	○	
Highly Grazed Grasses (OVERALL <3" HIGH)	○	○	○	
Recently Burned Forest Canopy	○	○	○	
Recently Burned Grassland (BLACKENED)	○	○	○	

Fill bubble if present - Plot	1	2	3	Flag
Herbicide Use	○	○	○	
Mowing/Shrub Cutting	○	○	○	
Trails	○	○	○	
Soil Compaction (ANIMAL OR HUMAN)	○	○	○	
Offroad vehicle damage	○	○	○	
Soil erosion (FROM WIND, WATER, OR OVERUSE)	○	○	○	
Other: _____	○	○	○	
Other: _____	○	○	○	

Flag codes: K = No measurement made, U = Suspect measurement., F1,F2, etc. = misc. flags assigned by each field crew.
Explain all flags in comment section on the back of this form

2428168304

FORM B-1: BUFFER SAMPLE PLOTS (Front)

Reviewed by (Initial): _____

Site ID: PCAPSC1236

DATE: 07/16/2012

Location: ○ AA Center ○ N ○ S ● E ○ W

Fill in bubble(s) if plot(s) could not be sampled and flag → ○ Plot 1 ○ Plot 2 ○ Plot 3

Buffer Natural Cover Strata

Fill in bubbles for all that apply: Canopy Type: D = Deciduous; E = Evergreen. Leaf Type: B = Broadleaf; N = Needle Leaf. Absent: No tree canopy.
Strata Section: Fill in appropriate cover class bubble for each strata type for each plot. 0 = Absent; 1 = Sparse(<10%); 2=Moderate(10-40%); 3 = Heavy (40-75%); 4 = Very Heavy (>75%)

Buffer Plot 1 (Canopy Type: ● E; Leaf Type: ● N; Absent: ○; Flag)		Buffer Plot 2 (Canopy Type: ● E; Leaf Type: ● N; Absent: ○; Flag)		Buffer Plot 3 (Canopy Type: ● E; Leaf Type: ● N; Absent: ○; Flag)	
Big Trees (>0.3m DBH)	2	Big Trees (>0.3m DBH)	2	Big Trees (>0.3m DBH)	1
Small Trees (<0.3m DBH)	3	Small Trees (<0.3m DBH)	3	Small Trees (<0.3m DBH)	0
Woody Shrubs, Saplings (0.5m-5m HIGH)	2	Woody Shrubs, Saplings (0.5m-5m HIGH)	4	Woody Shrubs, Saplings (0.5m-5m HIGH)	0
Woody Shrubs, Saplings (<0.5m HIGH)	1	Woody Shrubs, Saplings (<0.5m HIGH)	2	Woody Shrubs, Saplings (<0.5m HIGH)	0
Herbs, Forbs and Grasses	2	Herbs, Forbs and Grasses	3	Herbs, Forbs and Grasses	1
Bare ground	2	Bare ground	1	Bare ground	4
Litter, duff	1	Litter, duff	3	Litter, duff	1
Rock	1	Rock	1	Rock	1
Water	0	Water	0	Water	0
Submerged Vegetation	0	Submerged Vegetation	0	Submerged Vegetation	0

Stressor Presence/Absence - Confirm that a filled data bubble indicates presence and an unfilled bubble indicates absence by filling this bubble. ●

Residential and Urban Stressors

Fill bubble if present - Plot	1	2	3	Flag
Road - gravel	○	○	○	
Road - two lane	○	●	○	2
Road - four lane	○	○	○	
Parking Lot/Pavement	○	○	●	3
Golf Course	○	○	○	
Lawn/Park	○	○	○	
Suburban Residential	○	○	○	
Urban/Multifamily	○	○	○	
Landfill	○	○	○	
Dumping	○	○	○	
Trash	○	○	○	
Other: _____	○	○	○	
Other: _____	○	○	○	

Hydrology Stressors

Fill bubble if present - Plot	1	2	3	Flag
Ditches, Channelization	○	○	○	
Dike/Dam/Road/RR Bed (IMPEDE FLOW)	○	○	○	
Water Level Control Structure	○	○	○	
Excavation, Dredging	○	○	○	
Fill/Spoil Banks	○	○	○	
Freshly Deposited Sediment (UNVEGETATED)	○	○	○	
Soil Loss/Root Exposure	○	○	○	
Wall/Riprap	○	○	○	
Inlets, Outlets	○	○	○	
Point Source/Pipe (EFFLUENT OR STORMWATER)	○	○	○	
Impervious surface input (SHEETFLOW)	○	○	○	
Other: _____	○	○	○	
Other: _____	○	○	○	

Agricultural & Rural Stressors

Fill bubble if present - Plot	1	2	3	Flag
Pasture/Hay	○	○	○	
Range	○	○	○	
Row Crops	○	○	○	
Fallow Field (RECENT-RESTING ROW CROP FIELD)	○	○	○	
Fallow Field (OLD - GRASS, SHRUBS, TREES)	○	○	○	
Nursery	○	○	○	
Dairy	○	○	○	
Orchard	○	○	○	
Confined Animal Feeding	○	○	○	
Rural Residential	○	○	○	
Gravel Pit	○	○	○	
Irrigation	○	○	○	
Other: _____	○	○	○	

Industrial Development Stressors

Fill bubble if present - Plot	1	2	3	Flag
Oil Drilling	○	○	○	
Gas Wells	○	○	○	
Mine (surface)	○	○	○	
Mine (underground)	○	○	○	
Military	○	○	○	
Other: _____	○	○	○	
Other: _____	○	○	○	
Other: _____	○	○	○	

Habitat/Vegetation Stressors

Fill bubble if present - Plot	1	2	3	Flag
Forest Clear Cut	○	○	○	
Forest Selective Cut	○	○	○	
Tree Plantation	○	○	○	
Tree Canopy Herbivory (INSECT)	○	○	○	
Shrub Layer Browsed (WILD OR DOMESTIC)	●	●	○	
Highly Grazed Grasses (OVERALL <3" HIGH)	○	○	○	
Recently Burned Forest Canopy	○	○	○	
Recently Burned Grassland (BLACKENED)	○	○	○	

Fill bubble if present - Plot	1	2	3	Flag
Herbicide Use	○	○	○	
Mowing/Shrub Cutting	○	○	○	
Trails	●	○	○	1
Soil Compaction (ANIMAL OR HUMAN)	○	○	○	
Offroad vehicle damage	○	○	○	
Soil erosion (FROM WIND, WATER, OR OVERUSE)	○	○	○	
Other: _____	○	○	○	
Other: _____	○	○	○	

Flag codes: K = No measurement made, U = Suspect measurement., F1,F2, etc. = misc. flags assigned by each field crew.
Explain all flags in comment section on the back of this form

2428168304

FORM B-1: BUFFER SAMPLE PLOTS (Front)

Reviewed by (Initial): _____

Site ID: PCAPSc1236 DATE: 07/16/2012

Location: ○ AA Center ○ N ● S ○ E ○ W

Fill in bubble(s) if plot(s) could not be sampled and flag → ○ Plot 1 ○ Plot 2 ○ Plot 3

Buffer Natural Cover Strata

Fill in bubbles for all that apply: Canopy Type: D = Deciduous; E = Evergreen. Leaf Type: B = Broadleaf; N = Needle Leaf. Absent: No tree canopy.
Strata Section: Fill in appropriate cover class bubble for each strata type for each plot. 0 = Absent; 1 = Sparse(<10%); 2=Moderate(10-40%); 3 = Heavy (40-75%); 4 = Very Heavy (>75%)

Buffer Plot 1	Canopy Type: D ○ E ○ Absent: ○ Leaf Type: B ○ N ○ Flag	Buffer Plot 2	Canopy Type: D ○ E ○ Absent: ○ Leaf Type: B ○ N ○ Flag	Buffer Plot 3	Canopy Type: D ○ E ○ Absent: ○ Leaf Type: B ○ N ○ Flag
Big Trees (>0.3m DBH)	3	Big Trees (>0.3m DBH)	3	Big Trees (>0.3m DBH)	3
Small Trees (<0.3m DBH)	4	Small Trees (<0.3m DBH)	3	Small Trees (<0.3m DBH)	1
Woody Shrubs, Saplings (0.5m-5m HIGH)	2	Woody Shrubs, Saplings (0.5m-5m HIGH)	2	Woody Shrubs, Saplings (0.5m-5m HIGH)	2
Woody Shrubs, Saplings (<0.5m HIGH)	1	Woody Shrubs, Saplings (<0.5m HIGH)	2	Woody Shrubs, Saplings (<0.5m HIGH)	2
Herbs, Forbs and Grasses	1	Herbs, Forbs and Grasses	3	Herbs, Forbs and Grasses	3
Bare ground	1	Bare ground	3	Bare ground	0
Litter, duff	4	Litter, duff	3	Litter, duff	1
Rock	1	Rock	1	Rock	1
Water	0	Water	0	Water	0
Submerged Vegetation	0	Submerged Vegetation	0	Submerged Vegetation	0

Stressor Presence/Absence - Confirm that a filled data bubble indicates presence and an unfilled bubble indicates absence by filling this bubble. ●

Residential and Urban Stressors					Hydrology Stressors					Agricultural & Rural Stressors				
Fill bubble if present - Plot	1	2	3	Flag	Fill bubble if present - Plot	1	2	3	Flag	Fill bubble if present - Plot	1	2	3	Flag
Road - gravel	○	○	○		Ditches, Channelization	○	○	○		Pasture/Hay	○	○	○	
Road - two lane	○	○	○		Dike/Dam/Road/RR Bed (IMPEDE FLOW)	○	○	○		Range	○	○	○	
Road - four lane	○	○	○		Water Level Control Structure	○	○	○		Row Crops	○	○	○	
Parking Lot/Pavement	○	○	○		Excavation, Dredging	○	○	○		Fallow Field (RECENT-RESTING ROW CROP FIELD)	○	○	○	
Golf Course	○	○	○		Fill/Spoil Banks	○	○	○		Fallow Field (OLD - GRASS, SHRUBS, TREES)	○	○	○	
Lawn/Park	○	○	○		Freshly Deposited Sediment (UNVEGETATED)	○	○	○		Nursery	○	○	○	
Suburban Residential	○	○	○		Soil Loss/Root Exposure	●	○	○		Dairy	○	○	○	
Urban/Multifamily	○	○	○		Wall/Riprap	○	○	○		Orchard	○	○	○	
Landfill	○	○	○		Inlets, Outlets	○	○	○		Confined Animal Feeding	○	○	○	
Dumping	○	○	○		Point Source/Pipe (EFFLUENT OR STORMWATER)	○	○	○		Rural Residential	○	○	○	
Trash	○	○	○		Impervious surface input (SHEETFLOW)	○	○	○		Gravel Pit	○	○	○	
Other: _____	○	○	○		Other: _____	○	○	○		Irrigation	○	○	○	
Other: _____	○	○	○		Other: _____	○	○	○		Other: _____	○	○	○	

Industrial Development Stressors					Habitat/Vegetation Stressors									
Fill bubble if present - Plot	1	2	3	Flag	Fill bubble if present - Plot	1	2	3	Flag	Fill bubble if present - Plot	1	2	3	Flag
Oil Drilling	○	○	○		Forest Clear Cut	○	○	○		Herbicide Use	○	○	○	
Gas Wells	○	○	○		Forest Selective Cut	○	○	○		Mowing/Shrub Cutting	○	○	○	
Mine (surface)	○	○	○		Tree Plantation	○	○	○		Trails	○	○	○	
Mine (underground)	○	○	○		Tree Canopy Herbivory (INSECT)	○	○	○		Soil Compaction (ANIMAL OR HUMAN)	○	○	○	
Military	○	○	○		Shrub Layer Browsed (WILD OR DOMESTIC)	○	●	●		Offroad vehicle damage	○	○	○	
Other: _____	○	○	○		Highly Grazed Grasses (OVERALL <3" HIGH)	○	○	○		Soil erosion (FROM WIND, WATER, OR OVERUSE)	●	●	○	
Other: _____	○	○	○		Recently Burned Forest Canopy	○	○	○		Other: _____	○	○	○	
Other: _____	○	○	○		Recently Burned Grassland (BLACKENED)	○	○	○		Other: _____	○	○	○	

Flag codes: K = No measurement made, U = Suspect measurement., F1,F2, etc. = misc. flags assigned by each field crew.
Explain all flags in comment section on the back of this form

2428168304

FORM B-1: BUFFER SAMPLE PLOTS (Front)

Reviewed by (initial): _____

Site ID: PCAPSC1236 DATE: 07 / 16 / 2012

Location: ○ AA Center ○ N ○ S ○ E ● W

Fill in bubble(s) if plot(s) could not be sampled and flag → ○ Plot 1 ○ Plot 2 ○ Plot 3

Buffer Natural Cover Strata

Fill in bubbles for all that apply: Canopy Type: D = Deciduous; E = Evergreen. Leaf Type: B = Broadleaf; N = Needle Leaf. Absent: No tree canopy.
Strata Section: Fill in appropriate cover class bubble for each strata type for each plot. 0 = Absent; 1 = Sparse(<10%); 2=Moderate(10-40%); 3 = Heavy (40-75%); 4 = Very Heavy (>75%)

Buffer Plot 1	Canopy Type: ● E	Absent: ○	Buffer Plot 2	Canopy Type: D ●	Absent: ○	Buffer Plot 3	Canopy Type: ● E	Absent: ○
	Leaf Type: ● N	Flag		Leaf Type: B ●	Flag		Leaf Type: ● N	Flag

	Plot 1	Plot 2	Plot 3
Big Trees (>0.3m DBH)	3	3	4
Small Trees (<0.3m DBH)	4	4	4
Woody Shrubs, Saplings (0.5m-5m HIGH)	2	2	1
Woody Shrubs, Saplings (<0.5m HIGH)	1	2	1
Herbs, Forbs and Grasses	2	1	1
Bare ground	1	3	2
Litter, duff	4	3	3
Rock	1	2	2
Water	0	0	0
Submerged Vegetation	0	0	0

Stressor Presence/Absence - Confirm that a filled data bubble indicates presence and an unfilled bubble indicates absence by filling this bubble. ●

Residential and Urban Stressors	1	2	3	Flag
Road - gravel	○	○	○	
Road - two lane	○	○	○	
Road - four lane	○	○	○	
Parking Lot/Pavement	○	○	○	
Golf Course	○	○	○	
Lawn/Park	○	○	○	
Suburban Residential	○	○	○	
Urban/Multifamily	○	○	○	
Landfill	○	○	○	
Dumping	○	○	○	
Trash	○	○	○	
Other:	○	○	○	
Other:	○	○	○	

Hydrology Stressors	1	2	3	Flag
Ditches, Channelization	○	○	○	
Dike/Dam/Road/RR Bed (IMPEDE FLOW)	○	○	○	
Water Level Control Structure	○	○	○	
Excavation, Dredging	○	○	○	
Fill/Spoil Banks	○	○	○	
Freshly Deposited Sediment (UNVEGETATED)	○	○	○	
Soil Loss/Root Exposure	○	○	○	
Wall/Riprap	○	○	○	
Inlets, Outlets	○	○	○	
Point Source/Pipe (EFFLUENT OR STORMWATER)	○	○	○	
Impervious surface input (SHEETFLOW)	○	○	○	
Other:	○	○	○	
Other:	○	○	○	

Agricultural & Rural Stressors	1	2	3	Flag
Pasture/Hay	○	○	○	
Range	○	○	○	
Row Crops	○	○	○	
Fallow Field (RECENT-RESTING ROW CROP FIELD)	○	○	○	
Fallow Field (OLD - GRASS, SHRUBS, TREES)	○	○	○	
Nursery	○	○	○	
Dairy	○	○	○	
Orchard	○	○	○	
Confined Animal Feeding	○	○	○	
Rural Residential	○	○	○	
Gravel Pit	○	○	○	
Irrigation	○	○	○	
Other:	○	○	○	

Industrial Development Stressors	1	2	3	Flag
Oil Drilling	○	○	○	
Gas Wells	○	○	○	
Mine (surface)	○	○	○	
Mine (underground)	○	○	○	
Military	○	○	○	
Other:	○	○	○	
Other:	○	○	○	
Other:	○	○	○	

Habitat/Vegetation Stressors	1	2	3	Flag
Forest Clear Cut	○	○	○	
Forest Selective Cut	○	○	○	
Tree Plantation	○	○	○	
Tree Canopy Herbivory (INSECT)	○	○	○	
Shrub Layer Browsed (WILD OR DOMESTIC)	●	○	○	
Highly Grazed Grasses (OVERALL <3" HIGH)	○	○	○	
Recently Burned Forest Canopy	○	○	○	
Recently Burned Grassland (BLACKENED)	○	○	○	

Habitat/Vegetation Stressors	1	2	3	Flag
Herbicide Use	○	○	○	
Mowing/Shrub Cutting	○	○	○	
Trails	●	●	○	12
Soil Compaction (ANIMAL OR HUMAN)	○	○	○	
Offroad vehicle damage	○	○	○	
Soil erosion (FROM WIND, WATER, OR OVERUSE)	○	○	○	
Other:	○	○	○	
Other:	○	○	○	

Flag codes: K = No measurement made, U = Suspect measurement., F1,F2, etc. = misc. flags assigned by each field crew.
Explain all flags in comment section on the back of this form

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