NZ 7/25/12

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

Project Label: PCAP **Plot No:** 1250 **Date Sampled:** 7/23/12 **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	
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?		7/25/12	Enter date to left NZ
Final data sheets scanned?			Enter date to left
Buffer Widths measured?		(Y) N	KEL 6-29-12
Web Soil Survey		(Y) N	TK 7-27-12
Voucher Location	Refrigerator	Y N	
(# vouchers collected)	Press (#)		Enter number to left
SPK 567-584	Drier	Y N	
	Identified	(Y) N	
	Mounted	Y N	
	Thrown away	Y N	

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:

Park at the RTA Park + Ride parking lot
Plot is 200 to the southwest

CLEVELAND METROPARKS Plant Community Assessment Program - Background Data Sheet

GENERAL INFORMATION

Project Label: PCAP

Project Name: 01MS2012

Plot Name: Poison Ivy less than 1

Plot No.: 1250

☐ Level 4 (no nested corners sampled)

■ Level 5 (nested corners sampled)

Date (mm/dd/yyyy): 7/23/2012

End date (if > 1 day): / /

Party	Role**
S. Eisenbach	Plot leader
A. Young	Asst
M. Breth	Asst

** 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

	highly	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: Berea

Local Place Names: Pearl Rd + RTA parking lot

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: ■ Lat/Long ☐ UTM ☐ StatePlane ☐ Other (*specify*)

Coord. Units: ■ deg ☐ deg min ■ m ☐ ft ☐ ___

Datum: ■ NAD83/WGS84 ☐ NAD27

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

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

Latitude: 41.33799

Longitude: 81.82857

Coord. Accuracy: ✓ m ☐ ft +- 16

GPS File Name: 1260

Plot size for cover data: 0.04 (hectares)

X-axis Bearing of plot: [194] °

Depth: (1-5): 4

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

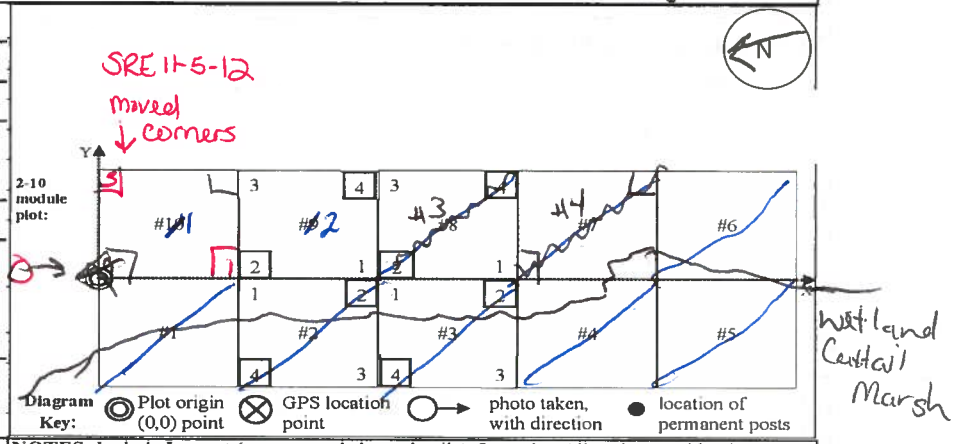
Camera No.: 2

Photo Nos.: C2-1972

Plot placement: ✓ GRTS ☐ Representative

☐ Random ☐ Stratified Random ☐ Transect component

☐ Systematic (grid) ☐ Capture specific feature ☐ Other



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: 1X4
Avoid Cattail march

Location: Park at RTA Park&Ride. Plot is across drive approx 200m near the cattail marsh

Rationale: GRTS pt fell in transition from Cattail marsh to upland
Pt definitely out of Cattail marsh

Veg Char: Canopy: Ash, Elm
Shrub: Buckthorn, Bush honeysuckle
Herb: Poa, Glyceria, Poison Ivy

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

OVER

CLEVELAND METROPARKS Plant Community Assessment Program Species Cover Data Sheet 2a Page 1 of 3

Project Label: PCAP Project name: Olmsa2012 Plot no.: 1250

Total modules: 4 Intensive modules: 4 Plot configuration: 1 x 4 Plot area (ha): .04

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 3	mod 2	corner 4	mod 2	corner 2	mod 3	corner 4	mod 3	corner 2	mod 4	corner 4	mod 4	corner 2	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	0			1	0				
%unvegetated open water	1	0			1	0			1	0			1	0				
%unveg. ground (bare soil)	1	7			1	2			1	0			1	0				
%unveg. litter (bare litter)	1	6			1	2			1	0			1	0				

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	2			10	Rhamnus frangula			4	8	4		2	6	4		3	6			3	7	4								
5	3	7				Toxicodendron radicans			4	6	4		3	5	3		4	5	4		4	7	4								
		7				Glyceria striata			4	6	2				4	7	2	5	3		3	5									
8	5				8	Fraxinus pennsylvanica			3	5	3		4	7	2		4	9	4		4	7	4								
		2				Lysimachia nummularia			4	2					4	1	+		3	2	+				4	3					
		1				~~Verbesina~~ Verbena urticifolia		NZ 8/10/12	3	1			-1	2																	
		8				Poa trivalis			3	2			4	7			3	8	4		4	6	3								
		2				Polygonum sagittatum			3	2			+		2	2					1	2									
	7	2			8	Lonicera morrowii			2	4	4		2	6	3		2	5	4		4	6									
	3	1			6	Viburnum dentatum			2	3			-1	3							1	1									
		3			6	Aster lateriflorus			2	1			2	2			-1	2			3	2	3								
		3				Carex (Blaredа?)			2	2	4		2	2	3		4	3			4	2	3								
		2				Parthenocissus quinquefolia			2	2					3	2	1	1													
		2				Solanum dulcamara			1	1			-		3	2															
		2				Erectithes hieracifolia			1	2			+1	2																	
		3				Geum canadense					4	2	4	2	3		3	2	4		3	2									
		3				Solidago ~~canadensis~~		C2/1980	1	2			2	2	3	-			2	2					2	2					
		2				Veronica serpyllifolia			1	2							-1	2													
		2				Alliaria petiolata					2	2																			
		4				Carex (rosea?)		(thin wiry green)			2	3	+		4	3	3	2		+			3	2							
		2				Leersia virginica			1	1			4	2	2		2	2													
		2			Po	~~Solidago~~ Solidago gigantea			1	1			+1	1							2	2									
6						Ulmus americana					4	7	-1	2																	
		2				Moss sp.					3	2	1	2																	
		1				Circaea lutetiana					2	1																			

2aCM PCAP Species Cover Data sheet Page 1 of x_ver 3.xls last revised 5/29/2012 ceh

Natural Resource Management FORM NR/2010-02a

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

Project Label: PCAP Project name: CMS2012 Plot no.: 1250

Total modules: 4 Intensive modules: 4 Plot configuration: 1X4 Plot area (ha): 0.04

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 3	mod 1 corner 2	mod 2 corner 4	mod 2 corner 2	mod 3 corner 4	mod 3 corner 2	mod 4 corner 4	mod 4 corner 2	mod corner R	mod corner 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			

T	S	H	(F)	(A)	Br	Species	c	Voucher #	mod 1 corner 3 depth	mod 1 corner 3 cov	mod 1 corner 2 depth	mod 1 corner 2 cov	mod 2 corner 4 depth	mod 2 corner 4 cov	mod 2 corner 2 depth	mod 2 corner 2 cov	mod 3 corner 4 depth	mod 3 corner 4 cov	mod 3 corner 2 depth	mod 3 corner 2 cov	mod 4 corner 4 depth	mod 4 corner 4 cov	mod 4 corner 2 depth	mod 4 corner 2 cov	mod corner R depth	mod corner R cov
		3				Polygonum virginianum			1	1			4	2			3	2	3		1	2				
		2				Oxalis stricta							1	2			1	2			1	1				
		3			9	Epilobium ~~coloratum~~ parviflorum		SRE 568							2	2	3	2			3	2	3				
	5	2			8	Rubus allegheniensis			1	1			4	2					3	2						
		2				Fraxinus sp. (seedlings)					2	3	3	2	2		2	2	4					4	2	
		3				Juncus effusus							2	2					2	3				3	3	
		1				Polygonum sp.		N2 8-10-12					2	1					2	1						
		2				Juncus tenuis							2	2					2	2	1	2				
	4	1				Crataegus sp.		~~C2-1978~~					1	4			1	2								
		2			10	Ligustrum vulgare							1	2												
		2				~~Pycnanthemum sp.~~ Biophilia ciliata		C2. 1974					1	2												
		2			1	Cornus sp.							1	2			1	2								
		2				Veronica officinalis							1	2												
		3				Carex cristatella							1	1					2	3						
		1				Crataegus sp #2		C2-1975					1	1			1	1								
		3				Carex stipata							1	1			2	2			1	3				
		2				Ulmus sp. (seedlings)											3	1			2	2	3			
		1				Galium sp												1								
	3	2			9	Rosa multiflora												1	2			3	4			
		2				Panicum sp.												1	2							
		1				Quercus sp. (seedling)												1	1		1	1				
		2				Lotus corniculatus												1	1				2	2		
2						Vitis riparia																4	2			
		3				Carex lurida	X	SRE 567														1	3			
		2				Unk poaceae (muhly)		C2 1981														X		4	2	

double check name Smooth stem

zeppery o fringe

sessile lvs

brown pith

Deer forage?

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

Project Label: PCAP Project name: OIMS 2012 Plot no.: 1250

Total modules: 4 Intensive modules: 4 Plot configuration: 1x4 Plot area (ha): .04

~~Visual est. % open water entire site:~~ ~~Visual est. %unveg.o.w. entire site:~~ ~~Visual est. %invasives entire site:~~

Cleveland Metroparks

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

Strata - Cov. entire plot

T	S	H	(F)	(A)	Br	Species	c	Voucher #
		1				Eupatorium perfoliatum		
		1				Acer seedlings		
		1				Bidens sp.		
		1				Erigeron philadelphicus		
		1				Acer negundo		
		1				Verbena hastata		
		2				~~Typha sp.~~ Typha angustifolia (narrow lvd)		
		3				Persia oryzoides		
		2				Agrimonia parviflora		
		2				~~Aster~~ Doellingeria umbellata	X	SRE5689 SRE 10-11-12

Estimate for each intensive module:

	mod 1	corner 1	mod 1	corner 3	mod 2	corner 4	mod 2	corner 2	mod 3	corner 4	mod 3	corner 2	mod 4	corner 4	mod 4	corner 2	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					

	mod 1	corner 1	mod 1	corner 3	mod 2	corner 4	mod 2	corner 2	mod 3	corner 4	mod 3	corner 2	mod 4	corner 4	mod 4	corner 2	mod R	corner R
	depth	cov	depth	cov	depth	cov	depth	cov	depth	cov	depth	cov	depth	cov	depth	cov	depth	cov
Eupatorium perfoliatum													~~3~~		3	1		
Acer seedlings															3	1		
Bidens sp.															2	1		
Erigeron philadelphicus															2	1		
Acer negundo															2	1		
Verbena hastata													1	1				
~~Typha sp.~~ Typha angustifolia (narrow lvd)													1	2				
Persia oryzoides													1	3				
Agrimonia parviflora													1	1				
~~Aster~~ Doellingeria umbellata	1	2							1	2			1	2				

CLEVELAND METROPARKS Plant Community Assessment Program Natural Woody Stem Data Sheet

Project Label: PCAP Project Name: OIMS2012 Plot No.: 1250 Page: 1 of 1

Cleveland Metroparks

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	Rhamnus frangula				25%	23											
✓ 1	Lonicera Maackii																
✓ 1	Ulmus americana																
✓ 1	Toxicodendron radicans																
✓ 1	Fraxinus pennsylvanica																
✓ 1	Standing dead																53.8
✓ 2	Rhamnus frangula				50%												
✓ 2	Standing dead																
✓ 2	Crataegus sp																
✓ 2	Lonicera Maackii																
✓ 2	Fraxinus pennsylvanica																
✓ 2	Ligustrum vulgare																
✓ 2	Toxicodendron radicans																
3	Toxicodendron radicans																
✓ 3	Fraxinus pennsylvanica																
✓ 3	Standing dead																
3	Toxicodendron radicans																
✓ 3	Lonicera Maackii																
✓ 3	Rhamnus Frangula			17	25%	23											
✓ 4	Fraxinus pennsylvanica																
✓ 4	Standing dead																
✓ 4	Toxicodendron radicans																
✓ 4	Rosa multiflora																
4	Rhamnus Frangula			32	50%	21											
4	Lonicera Maackii					12											

see 10-3+5 for half dot DNE

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

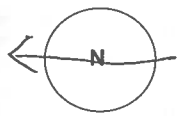
Project Label: PCAP Project Name: OIMS2012 Plot No.: 1250 Date: 7/23/12 Page: 1 of 2

Module	Tree ID.	Species	Dead	c	Voucher #	DBH (cm)	Ht @ DBH	ASH Only: Ash condition	*Dead condition	# Exit holes	Epicormic present	Woodpecker holes
2	1	Fraxinus pennsylvanica				19.6		2	Ø	Ø	Ø	Ø
2	2	Fraxinus pennsylvanica				11.3		2	Ø	Ø	1	Ø
2	3	Fraxinus pennsylvanica				16.2		2	Ø	Ø	1	0
2	4	Fraxinus pennsylvanica				17.1		2	Ø	Ø	1	Ø
3	5	Fraxinus pennsylvanica				15.1		2	Ø	Ø	1	Ø
3	6	Fraxinus pennsylvanica				20.1		3	Ø	Ø	Ø	0
3	7	Fraxinus pennsylvanica				22.9		3	Ø	Ø	1	0
3	8	Fraxinus pennsylvanica				12.1		3	Ø	Ø	1	0
3	9	Fraxinus pennsylvanica				18.2		4	0	Ø	1	0
3	10	Fraxinus pennsylvanica				10.8		3	Ø	Ø	1	0
3	11	Fraxinus pennsylvanica				17.0		3	Ø	Ø	Ø	Ø
3	12	Fraxinus pennsylvanica				21.2		2	Ø	Ø	Ø	0
3	13	Fraxinus pennsylvanica				17.0		2	Ø	Ø	Ø	Ø
3	14	Fraxinus pennsylvanica				10.4		4	Ø	0	1	0
3	15	Fraxinus pennsylvanica				15.6		3	Ø	Ø	1	Ø
4	16	Fraxinus pennsylvanica				10.6		2	0	Ø	0	0
4	17	Fraxinus pennsylvanica				16.3		3	Ø	Ø	1	Ø
4	18	Fraxinus pennsylvanica				17.2		3	Ø	Ø	1	Ø
4	19	Fraxinus pennsylvanica				17.5		3	0	0	0	0
4	20	Fraxinus pennsylvanica				14.3		3	0	0	1	0
4	21	Fraxinus pennsylvanica				13.1		3	Ø	Ø	1	Ø
4	22	Fraxinus pennsylvanica				10.4		4	Ø	Ø	1	Ø
4	23	Fraxinus pennsylvanica				13.1		2	Ø	Ø	1	Ø
4	24	Fraxinus pennsylvanica				10.1		2	0	0	0	0
4	25	Fraxinus pennsy				14.2		2	Ø	Ø	1	Ø
4		Fraxinus pennsylvanica				13.3		3	Ø	Ø	Ø	Ø

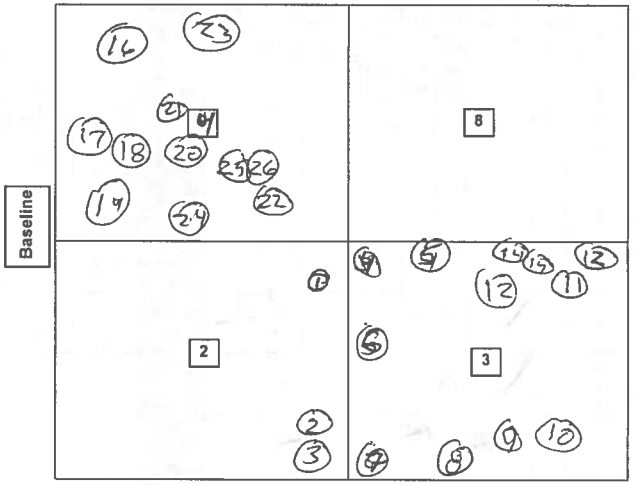
* If Ash Condition scores 5 (dead) provide breakup score (A-E)

Count EAB exit holes 1.25m≥ x ≥1.5m

Woodpecker and epicormic marked present (1) or absent (0)



*** Change Intensive module numbers when necessary



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

1 X 4

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

Project label: PCAP Project Name: 01MS2012 Plot No.: 1250

Cleveland Metroparks

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

Soil pit module # 3 (one per entire plot)

6 cm	matrix color	10YR 4/2		
	mottle color	Ø		
	%mottle	Ø		
	oxid roots	Ø	Y	(N)
	texture*	1		
	redox features**		Y	(N)
	hydr. cond.***		I S M	(D)
20 cm	matrix color	10YR 4/2		
	mottle color	Ø		
	%mottle	Ø		
	oxid roots		Y	(N)
	texture*	2		
	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)

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)
2,3,8,9 composited	A

Soil Series/Type: Sb, Sebring silt loam

Soil Series Source: Ohio Soil Survey

Landform type: Drainageways

Depth to rest. Layer: 20 - 40 inches

Parent Material: Residuum from shale

DRAINAGE

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

TK 7-27-12

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	0.25	0.25	Ø	~~Ø~~ >30
2	1.2	1.2	Ø	~~Ø~~ >30 NE
3	1.4	1.4	Ø	~~Ø~~ >30 8-10-12
4	0.8	0.8	Ø	~~Ø~~ >30

EARTH SURFACE & GROUND COVER

Underlying Earth Surface* (Sum = 100%)	percent	Ground Cover (Each ≤ 100%)	percent
Histosol	Ø	Coarse Woody Debris***	3
Mineral Soil	100	Fine Woody Debris****	3
Gravel-Cobble*	Ø	Litter	5
Boulder**	Ø	Duff (Ferm.+ Humus)	Ø
Bedrock	Ø	Bryophyte- Lichen	3
* Gravel-Cobble = 1/16-10"		Water	Ø
**Boulder = > 10 in		Bare Soil	25
*** >5 cm in diameter		Road/Trail	Ø
**** <5 cm in diameter		Other	

TRAIL INFORMATION:

record type and cover for each

Type	%Cover
□ All Purpose	
□ Bridle	
□ Hiking sanctioned	
□ Bootleg unsanctioned	
□ Gravel	
□ Deer	

No trails

COVER BY STRATA %

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

Strata	Height Range (m)	Total Cover (%)
Tree	7 - 5	68
Shrub	0.5 - 5	78
Herb	< - 5	93
(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: Olms 2012 Plot No.: 1256

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	0	15	1	0	2	0
2		0	0	0	9	0	0	2	0
3		0	0	0	8	0	0	2	0
4		0	0	0	12	0	0	2	0

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

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

Module	N	S	E	W
1	7	3	3	2
2	66	17	42	20
3	13	11	10	10
4	12	15	10	17

FORM B-1: BUFFER SAMPLE PLOTS (Front)

Reviewed by (initial): _____

Site ID: PCAP MS 1250 DATE: 07 / 23 / 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 / Leaf Type: B N / Absent: ○					Flag
Big Trees (>0.3m DBH)	E	1	2	3	4	
Small Trees (<0.3m DBH)	B	1	2	3	4	
Woody Shrubs, Saplings (0.5m-5m HIGH)	0	1	2	N	4	
Woody Shrubs, Saplings (<0.5m HIGH)	0	1	2	N	4	
Herbs, Forbs and Grasses	0	1	2	3	N	
Bare ground	E	1	2	3	4	
Litter, duff	B	1	2	3	4	
Rock	X	N	2	3	4	
Water	N	1	2	3	4	
Submerged Vegetation	B	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: PCAP MS 1250 **DATE:** 07/23/2012

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%)

yplm Aster

Buffer Plot 1 (Canopy Type: D E; Leaf Type: B N; Absent: ●; Flag)		Buffer Plot 2 (Canopy Type: D E; Leaf Type: B N; Absent: ●; Flag)		Buffer Plot 3 (Canopy Type: D E; Leaf Type: B N; Absent: ●; Flag)	
Big Trees (>0.3m DBH)	0 1 2 3 4	Big Trees (>0.3m DBH)	0 1 2 3 4	Big Trees (>0.3m DBH)	0 1 2 3 4
Small Trees (<0.3m DBH)	0 1 2 3 4	Small 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-5m HIGH)	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	Woody Shrubs, Saplings (<0.5m 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	Herbs, Forbs and Grasses	0 1 2 3 4	Herbs, Forbs and Grasses	0 1 2 3 4
Bare ground	0 1 2 3 4	Bare ground	0 1 2 3 4	Bare ground	0 1 2 3 4
Litter, duff	0 1 2 3 4	Litter, duff	0 1 2 3 4	Litter, duff	0 1 2 3 4
Rock	0 1 2 3 4	Rock	0 1 2 3 4	Rock	0 1 2 3 4
Water	0 1 2 3 4	Water	0 1 2 3 4	Water	0 1 2 3 4
Submerged Vegetation	0 1 2 3 4	Submerged Vegetation	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: PCA2MS1250 **DATE:** 8 / 8 / 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 / Leaf Type: B N	Absent: ○	Flag	Buffer Plot 2	Canopy Type: D E / Leaf Type: B N	Absent: ○	Flag	Buffer Plot 3	Canopy Type: D E / Leaf Type: B N	Absent: ●	Flag
Big Trees (>0.3m DBH)	0 1 2 3 4			Big Trees (>0.3m DBH)	0 1 2 3 4			Big Trees (>0.3m DBH)	0 1 2 3 4		
Small Trees (<0.3m DBH)	0 1 2 3 4			Small 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-5m HIGH)	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			Woody Shrubs, Saplings (<0.5m 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			Herbs, Forbs and Grasses	0 1 2 3 4			Herbs, Forbs and Grasses	0 1 2 3 4		
Bare ground	0 1 2 3 4			Bare ground	0 1 2 3 4			Bare ground	0 1 2 3 4		
Litter, duff	0 1 2 3 4			Litter, duff	0 1 2 3 4			Litter, duff	0 1 2 3 4		
Rock	0 1 2 3 4			Rock	0 1 2 3 4			Rock	0 1 2 3 4		
Water	0 1 2 3 4			Water	0 1 2 3 4			Water	0 1 2 3 4		
Submerged Vegetation	0 1 2 3 4			Submerged Vegetation	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: PCAP MS1250 **DATE:** 07 / 21 / 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: P / Leaf Type: P; Absent: ○)	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 / Leaf Type: B N; Absent: ○)	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 / Leaf Type: B N; Absent: ●)	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	○	○	●	1
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: PCAP MS1250

DATE: 07 / 23 / 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: ○	Buffer Plot 2	Canopy Type: D ◉	Absent: ○	Buffer Plot 3	Canopy Type: D E	Absent: ◉
	Leaf Type: ◉ N	Flag		Leaf Type: B ◉	Flag		Leaf Type: B N	Flag

	Plot 1						Plot 2						Plot 3					
	0	1	2	3	4		0	1	2	3	4		0	1	2	3	4	
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)	○	○	○	

Habitat/Vegetation Stressors

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