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

Project Label: PCAP **Plot No:** 1259 **Date Sampled:** 7-24-12 **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?		7/25/12	Enter date to left NZ
Final data sheets scanned?			Enter date to left
Buffer Widths measured?		(Y) N	NZ 6-29-12
Web Soil Survey		(Y) N	TK 7-27-12
Voucher Location	Refrigerator	Y N	
(# vouchers collected)	Press (#)		Enter number to left
SRL 573-579	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:

CLEVELAND METROPARKS Plant Community Assessment Program - Background Data Sheet

GENERAL INFORMATION

Project Label: PCAP

Project Name: OIMS2012

Plot Name: In between

Plot No.: 1259

☐ Level 4 (no nested corners sampled)

■ Level 5 (nested corners sampled)

Date (mm/dd/yyyy): 7/24/2012

End date (if > 1 day): / /

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

	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: Berea

Local Place Names: Strongsville Wildlife Area

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

Latitude: N 41.31599

Longitude: W 81.80927

Coord. Accuracy: ☑ m ☐ ft +-

GPS File Name: 1259A

Plot size for cover data: 0.1 (hectares)

X-axis Bearing of plot: [170] °

Depth: (1-5): 4

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

Camera No.: 2

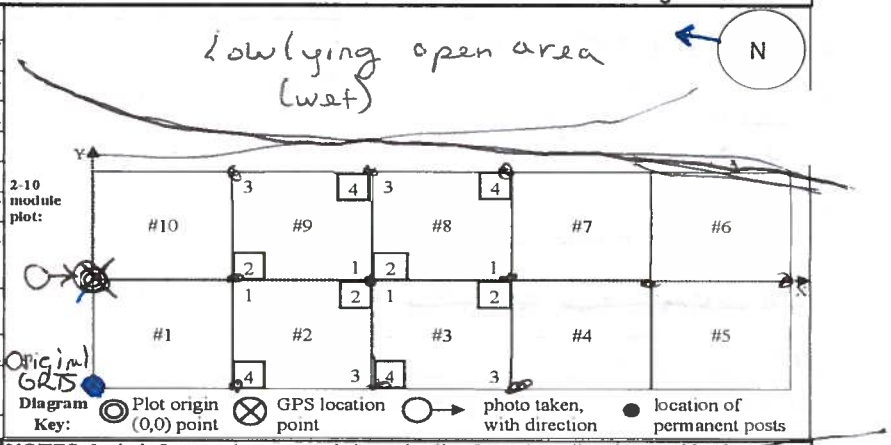
Photo Nos.: C2-1985

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. Open wet area

LAYOUT: 2 x 5

LOCATION: Park at strongsville wildlife area and follow a trail to the observation deck. Follow a bootleg trail to the left of the observation deck until the point is Southeast and walk directly to point. (Can cut thru cattail marsh, (dry).

RATIONALE: Shifted origin so that GRTS lies in corner 4 of mod 1, to avoid stream and change in community type. original GRTS at (0,-1)

* May need Muck boots in a wet year

Veg Char: Canopy: Red Oak, Red Maple, Sub canopy Tupelo

Shrub: Tupelo, Red Maple, Crabapples

Herb: Carex swanii, Canada mayflower, Prunus Seedlings

OVER

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

Project Label: PCAP Project name: OlMS2017 Plot no.: 1259

Total modules: 10 Intensive modules: 4 Plot configuration: 2x5 Plot area (ha): 0.1

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
									2	4	2	2	3	4	3	2	8	4	8	2	9	4	9	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	0			1	0			1	0			1	0						
						%unvegetated open water			1	0			1	0			1	0			1	0						
						%unveg. ground (bare soil)			1	4			1	4			1	2			1	3						
						%unveg. litter (bare litter)			1	9			1	9			1	9			1	9						
	3	1			8	Fagus grandifolia			4	4					2	2										
7	5				10	Acer rubrum			4	7	4		2	7	4		4	7	4		2	7	3			
		1				Carex gracillema			3	1																
5		2			5	Prunus serotina			3	4	2		2	2	3		4	2			2	4	2			
		2				Maranthemum canadense			3	3	4		2	2	2	→			3	2	→		2	2		
6	4	2			10	Nyssa sylvatica			3	7	2		4	6	2		4	5			2	6	2			
		2				Toxicodendron radicans			2	1			1	1												
		1				Unk Dicot		C2-1986	2	1			1	1												
		2				Moss sp.			2	2			2	2	3	→	1	2			1	2				
	2					Cornus florida			2	3																
						Carex sp (morsperi)			2	2			2													
		2				Viburnum dentatum			1	2			3	2	2		2	2			2	2	2			
		2				Amelanchier sp.			1	2			2	2		→	1	1								
		2				Acer sp (seedlings)					2	2	→		2	2	→		2	1	1	2				
		1				Quercus sp (seedlings)			1	1			1	1												
		1				Vitis sp (seedling)			1	1																
		2			9	Sassafrass albidum			1	2			2	2	2	→	1	2								
	2	2			6	Crataegus sp.					3	2	→	1	2		→		2	2	2	3	4			
		1				Polygonatum pubescens			1	1									2	1						
8					10	Quercus rubra					4	7	4	8	3		4	9	4		4	9	4			
		2				Rhamnus frangula			1	1			3	2			2	2	2				2	2		
		2				Carex swanii			2	2			2	2		→			2	2	2	2	2			
		2			9	Smilax rotundifolia							1	2							1	1				
6						Quercus velutina																			R	6
4						Vitis riparia			2	2					2	3										

Mom Light green

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: OIMS2017 Plot no.: 1259

Total modules: 10 Intensive modules: 4 Plot configuration: 2X5 Plot area (ha): 0.1

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
	2	4	2	2	3	4	3	2	8	4	8	2	9	4	9	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					
%unvegetated open water					1				1				1					
%unveg. ground (bare soil)					1				1				1					
%unveg. litter (bare litter)					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				Parthenocissus quinquefolia									2	1												
5		1				Liriodendron tulipifera									2	1												
		1			10	Rosa multiflora																					R	1
		2				Anthonia spicata											1	2										
		1			10	Solidago caesia											1	1			+1	1						
		1				Viburnum acerifolium															1	1						
	3				10	Fraxinus pennsylvanica															1	3						
		3				Carex intumescens		SRE 573																			R	3
		3				Carex debilis var. rudgei ZSB 10-7-12		SRE 574																			R	3
5						Ulmus americana																					R	5
		1				Onoclea sensibilis																					R	1
		1				Arisaema triphyllum var triphyllum																					R	1
		1				Fraxinus sp. (seedling)																					R	2
		2				Glyceria striata																					R	2
		1				Carex laxiculmis ZSB 10-7-12 glaucodea		SRE 575																			R	1
		1				Panicum longinodum ZSB 10-7-12		SRE 576																			R	2
		1				Berberis thunbergii																					R	1
	3					Acer saccharum																					R	3
		2			9	~~Potentilla reptans~~		Vaccinium sp. SRE 578																			R	3
		1				Carex (blanda) no repro SRE 9-2-12																					R	1
		2				Poaceae		SRE 577																			R	2
		1				Potentilla simplex																					R	2
		1				Dryopteris carthusiana																					R	2
		2				Leersia oryzoides																					R	2
		2				Lycopus virginicus																					R	2

Debius ~~accligit~~

crown shrub Basal

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

Project Label: PCAP Project name: OMS2017 Plot no.: 1259

Total modules: 10 Intensive modules: 4 Plot configuration: 2x5 Plot area (ha): 0.1

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
	2	4	2	2	3	4	3	2	8	4	8	2	9	4	9	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	corner cov
		2				Unk dicot (shrub/fuzzy)		C2/987-1988																					R	2
		2				Leersia virginica																							R	2
	3					Quercus alba		SRE 578																					R	3
		2				Rubus sp (blackberry)		C2-~~1988~~ 1990																					R	2
		1				Unknown dicot		C2/1989																					R	1

rispid stem

CLEVELAND METROPARKS Plant Community Assessment Program Natural Woody Stem Data Sheet

Project Label: PCAP Project Name: OMS2012 Plot No.: 1259 Page: 1 of 3

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	Quercus rubra																61.2
1	Acer rubrum								••	•	•						42.4
1	Nyssa sylvatica			••						•							
1	Standing dead								•	•			-				
2	Acer rubrum								•		x	x	•	•			
2	Prunus serotina			•								••					
2	Nyssa sylvatica			••					••	•							
2	Quercus rubra																61.1
2	Standing dead								•	•							
2	Fagus grandifolia			•					•								
2	Cornus florida							•									
2	Vitis riparia								••								
3	Acer rubrum			•						•	•						
3	Quercus rubra																42.3, 53.0
3	Nyssa sylvatica			••						•	•						
3	Vitis riparia								•	••							
3	Standing dead								•		•						
3	~~Acer rubrum~~ Sassafras Albidum			•													
4	Acer rubrum									••	••	•					
4	Quercus rubra										•		•				
4	Nyssa sylvatica										•						
4	Standing dead								•	•							
4	Acer saccharum									•							
4	Quercus velutina																47.4

CLEVELAND METROPARKS Plant Community Assessment Program Natural Woody Stem Data Sheet

Project Label: PCAP Project Name: OIMS2012 Plot No.: 1259 Page: 2 of 3

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)
✓	5 Acer rubrum																
✓	5 Prunus serotina																
✓	5 Quercus rubra																
✓	5 Berberis thunbergii																
✓	6 Acer rubrum																
✓	6 Liriodendron tulipifera																
✓	6 Ulmus americana																
✓	6 Quercus rubra																
✓	6 standing dead																
✓	6 Quercus alba																
✓	6 Nyssa sylvatica																
✓	6 Prunus serotina																
✓	7 Quercus rubra																
✓	7 Standing dead																
✓	7 Acer rubrum																
✓	7 Nyssa sylvatica																
✓	7 Prunus serotina ~~Acer rubrum~~																
✓	7 Multiflora ros ~~Quercus rubra~~ Rosa multiflora																
✓	8 Acer rubrum																
✓	8 Quercus rubra																40.2, 78.3, 83.8
✓	8 Standing dead																
✓	8 Nyssa sylvatica																

CLEVELAND METROPARKS Plant Community Assessment Program Natural Woody Stem Data Sheet

Cleveland Metroparks

Project Label: PCAP Project Name: OIMS2012 Plot No.: 1259 Page: 3 of 3

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)
✓ 9	Standing dead							•									
✓ 9	Acer rubrum			•					••	•							
✓ 9	Fraxinus pennsylvanica			•				•									
✓ 9	Prunus serotina								•			•					
✓ 9	Nyssa sylvatica			•							•						
✓ 9	Carya sp.			•													
✓ 10	Quercus rubra																48.2
✓ 10	Acer rubrum									•			•				
✓ 10	Standing dead							•				•		•			
✓ 10	Nyssa sylvatica			•						•	•		•				
✓ 10	Carya sp			:				•									
✓ 10	Prunus serotina			•													

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

Natural Resources Management FORM NR/2010-03a

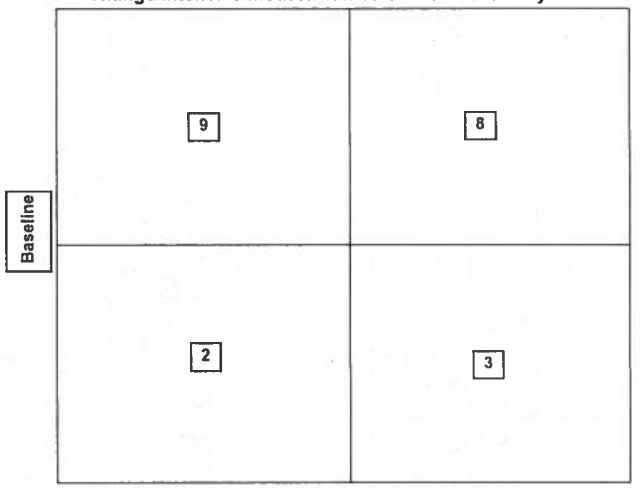
CLEVELAND METROPARKS Emerald Ash Borer - Fraxinus Sheet *INTENSIVE MODULES ONLY* *TREES ≥ 10CM ONLY*

Project Label: PCAP Project Name: OLMS2012 Plot No.: 1259 Date: 07/24/12

								ASH Only				
Module	Tree ID.	Species	Dead	c	Voucher #	DBH (cm)	Ht @ DBH	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											

N

*** Change intensive module numbers when necessary



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 - Plant Cover and Earth Surface

Project Label: PCAP Project Name: ~~[illegible]~~ OIMS2012 Plot No.: 1259

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)
2		0	0	1	26	1	0	2	0
3		0	0	1	15	2	0	2	0
8		0	0	0	22	3	0	2	0
9		0	0	2	19	2	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
2	7	3	4	6
3	5	4	4	4
8	3	3	4	2
9	7	7	6	5

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

Project label: PCAP Project Name: OMS2012 Plot No.: 1259

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

Soil pit module # 3 (one per entire plot)

5 cm	matrix color	10YR 3/4
	mottle color	N/A
	%mottle	N/A
	oxid roots	Y (N)
	texture*	Z
	redox features**	Y (N)
	hydr. cond.***	I S M (D)
20 cm	matrix color	10YR 5/4
	mottle color	N/A
	%mottle	N/A
	oxid roots	Y (N)
	texture*	Z
	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)
2,3,8,9 composited	A
Web Soil Survey Information	
Soil Series/Type: Eng, Euclid silt loam	
Soil Series Source: Ohio Soil Survey	
Landform type: Stream terraces	
Depth to rest. Layer: >80 inches	
Parent Material: glaciolacustrine deposits	

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)
2	2.5	2.3	Ø	~~Ø~~ >30
3	2.9	1.9	Ø	>30
8	3.0	2.8	Ø	>30
9	2.3	2.1	Ø	>30

2cm Duff Layer found throughout Plot

EARTH SURFACE & GROUND COVER

Underlying Earth Surface* (Sum = 100%)	percent	Ground Cover (Each ≤ 100%)	percent
Histosol	Ø	Coarse Woody Debris***	8
Mineral Soil	100	Fine Woody Debris****	3
Gravel-Cobble*	Ø	Litter	98
Boulder**	Ø	Duff (Ferm.+ Humus)	100
Bedrock	Ø	Bryophyte- Lichen	1
* Gravel-Cobble = 1/16-10"		Water	Ø
**Boulder = > 10 in		Bare Soil	3
*** >5 cm in diameter		Road/Trail	Ø
**** <5 cm in diameter		Other	Ø

TRAIL INFORMATION:

record type and cover for each

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

No Trail

COVER BY STRATA %
estimate using midpoints of 5,ex:3, 8, 13

Strata	Height Range (m)	Total Cover (%)
Tree	>-5	93
Shrub	0.5-5	33
Herb	<-0.5	~~18~~ 13
(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

FORM B-1: BUFFER SAMPLE PLOTS (Front)

Reviewed by (initial): _____

Site ID: RAPMS 1259

DATE: 07 / 24 / 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: ○	Flag	Buffer Plot 2	Canopy Type: D E	Absent: ○	Flag	Buffer Plot 3	Canopy Type: D E	Absent: ○	Flag
	Leaf Type: B N				Leaf Type: B N				Leaf Type: B N		
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					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: PCAP MS 1259 DATE: 07/24/2013

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					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: PCOP MS 1259 DATE: 07 / 24 / 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: (D) (E) Leaf Type: (B) (N)	Absent: ○ Flag	Buffer Plot 3	Canopy Type: (D) Leaf Type: (B)	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)	○	○	○	

Habitat/Vegetation Stressors (cont.)

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: PCAPMS1259 DATE: 07/24/2012

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 ● 4			Big Trees (>0.3m DBH)	0 1 ● 3 4			Big Trees (>0.3m DBH)	0 1 2 ● 4		
Small Trees (<0.3m DBH)	0 1 2 ● 4			Small Trees (<0.3m DBH)	0 1 2 3 ●			Small Trees (<0.3m DBH)	0 1 2 ● 4		
Woody Shrubs, Saplings (0.5m-5m HIGH)	0 ● 2 3 4			Woody Shrubs, Saplings (0.5m-5m HIGH)	0 1 2 ● 4			Woody Shrubs, Saplings (0.5m-5m HIGH)	0 1 ● 3 4		
Woody Shrubs, Saplings (<0.5m HIGH)	0 ● 2 3 4			Woody Shrubs, Saplings (<0.5m HIGH)	0 ● 2 3 4			Woody Shrubs, Saplings (<0.5m HIGH)	0 ● 2 3 4		
Herbs, Forbs and Grasses	0 ● 2 3 4			Herbs, Forbs and Grasses	0 ● 2 3 4			Herbs, Forbs and Grasses	0 1 ● 3 4		
Bare ground	0 ● 2 3 4			Bare ground	0 ● 2 3 4			Bare ground	0 ● 2 3 4		
Litter, duff	0 1 2 3 ●			Litter, duff	0 1 2 3 ●			Litter, duff	0 1 2 3 ●		
Rock	● 1 2 3 4			Rock	● 1 2 3 4			Rock	0 ● 2 3 4		
Water	● 1 2 3 4			Water	● 1 2 3 4			Water	● 1 2 3 4		
Submerged Vegetation	● 1 2 3 4			Submerged Vegetation	● 1 2 3 4			Submerged Vegetation	● 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					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: PCAPNS1259 DATE: 07/24/2012

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

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