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

Project Label: PCAP **Plot No:** 1256 **Date Sampled:** 7-30-12 **Lead:** Eyerenbach

SE 8-2-12

			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?			Enter date to left SE 8/3/12
Final data sheets scanned?			Enter date to left
Buffer Widths measured?		Y N	NT 6/29/12
Web Soil Survey		Y N	SE 8/3/12
Voucher Location	Refrigerator	Y N	
(# vouchers collected)	Press (#)		Enter number to left
SRG 543-545	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

Page 1 of 2

Did not Pin Plot - Barrier Pines

GENERAL INFORMATION

Project Label: PCAP

Project Name: 01SCR2012

Plot Name: Case of the Mondays

Plot No.: 1256

- ☐ Level 4 (no nested corners sampled)
- ■ Level 5 (nested corners sampled)

Date (mm/dd/yyyy): 7/30/2012

End date (if > 1 day): / /

Party	Role**
S. Eisenbach	Plot leader
P. Rucker	Asst.
T. Kistler	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

LOCATION

State: OH County: Cuyahoga

Quadrangle: Chagrin Falls

Local Place Names: ~~Park at Ranger Station. Walk west along~~ Cannon Rd to

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: 41.40947

Longitude: 81.42554

Coord. Accuracy: ✓ m ☐ ft 1.7 +-

GPS File Name: 1256A

Plot size for cover data: 0.1 (hectares)

X-axis Bearing of plot: [202] °

Depth: (1-5): 4

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

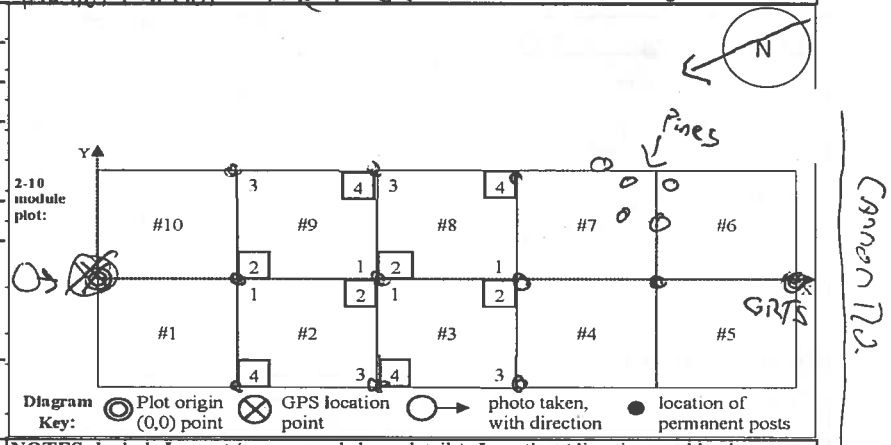
Camera No.: 2

Photo Nos.: 62-2010

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: 2x5

Location: Park at Ranger Station, walk westalong Cannon Rd. and is about 50m West of bridal trail. Plot run perpendicular to Cannon Rd

Rational: GRTS Point. Flipped origin to exclude a small pine stand from an intensive mod. Pines will be picked up in regionals Original GRTS pt at (5,0)

Veg Char:

Canopy: Red Maple, Sugar Maple, Ash

Shrub: Sugar Maple - sparse shrub layer

Canopy: Fraxinus seedlings, Poor Buckthorn

OVER

Minimum required fields in Bold and Underlined

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

old Garlic mustard

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

Project Label: PCAP Project name: 015C2012 Plot no.: 1256

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

Cleveland Metroparks

Strata - Cov. entire plot

Br = Browse Level. Use cover classes to describe amount of browse per species over 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 depth	corner cov	mod depth	corner cov	mod depth	corner cov	mod depth	corner cov	mod depth	corner cov	mod depth	corner cov	mod depth	corner cov	mod depth	corner cov	mod depth	corner cov
									2	4	2	2	3	4	3	2	8	4	8	2	9	4	9	2	R	R
		1				%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	0			1	2			1	0			1	0				
						%unveg. litter (bare litter)			1	8			1	9			1	9			1	8				
6		2			8	Prunus serotina			4	6	3		2	3	2		2	5	2		2	2	2			
8		1			10	Acer rubrum			4	9	4		4	8	4		4	7	4		3	9	4			
		6			5	Fraxinus sp. (seedlings)			4	7	3		4	2	3		2	2	3		2	4	4			
Not spiky		2				Polygonum cespitosum 2&3 10?, 12	X	SRT 593	4	2	2		1	2					2	2	2	2	3			
		3				Carex swanii			4	3	2		=		2	2	2	2	2		2	2	2			
		2			4	Crataegus sp.			4	2			1	2			2	2			1	2				
		2			8	Ulmus sp. (seedlings)			3	2			1	2									2	2		
2		2				Toxicodendron radicans			2	2	2		2	2	2		4	2			1	2				
	2	2			8	Rhamnus frangula			2	2	2		1	2		=			2	2	=		2	2		
		1				Acer sp. (seedlings)			2	1			1	1												
		2			9	Aster lateriflorus			2	2	2					=	1	1			2	2				
Dark green		4				Poa sp. (no rep)	X	SRT 595	3	3	2		1	2		=	1	2			2	2	4			
		2				Cinna arundinacea			1	2							2	2					2	2		
		2				Leersia virginica					2	2				=			2	2			2	2		
		2				Polygonum virginianum					2	2														
		1				Erechtites hieracifolia					2	1														
		1				Arisaema triphyllum ssp. triphyllum			1	1			2	1												
		2			10	Robinia pseudoacacia			1	1			2	1												
6	4					Acer saccharum			1	3			4	7	4		3	6	2							
		2			10	Ligustrum vulgare			1	2									2	2						
		2				Moss sp.							1	2					2	2	2	2				
4						Vitis riparia							1	4												
7						Fraxinus americana (tree)											4	6			4	6				
		2				Glyceria striata													2	2	1	2				
		1				Hackelia virginiana															1	1				

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

Project Label: PCAP Project name: 015C2012 Plot no.: 1256

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 #	depth	cov	depth	cov	depth	cov	depth	cov	depth	cov	depth	cov	depth	cov	depth	cov	depth	cov	depth	cov
		1				Ilex opaca															1	1						
5	5	2			7	Fagus grandifolia															1	1						
		2			8	Berberis thunbergii																					R	2
		2			8	Lindera benzoin																					R	2
glaucous		1				Carex digitalis =SB 10-3-12	X	SRC 594																			R	2
		1			10	Rubus sp.																					R	1
		2				Alliaria petiolata																					R	2
6						Acer platanoides																					R	6
6						Ulmus rubra																					R	6
		2			10	Lonicera morrowii																					R	2
		1				Arctium sp.																					R	1
		1			10	Rubus sp.			1	1																		
6						Pinus nigra																					R	6

CLEVELAND METROPARKS Plant Community Assessment Program Natural Woody Stem Data Sheet

Cleveland Metroparks

Project Label: PCAP Project Name: QLSC 2012 Plot No.: 1256 Page: 1 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)
1	Fraxinus ~~spp~~ americana														•		
1	Standing dead											•					
1	Acer rubrum															•	
1	Rhamnus ~~alnus~~ frangula			⊠ ⊠		28											
1	Rubus sp.			•		1											
1	Berberis thunbergii			• • •		3											
1	Crataegus sp.			•													
2	Acer rubrum										•		•			• •	
2	Prunus serotina																52.8
2	Acer saccharum								•								
2	Rhamnus ~~alnus~~ frangula			11		4											
2	Fraxinus sp.			•													
2	Ligustrum vulgare					•											
2	Rubus sp			•													
3	Acer rubrum			•								•					43.8, 46.7
3	Acer saccharum									•				•			
2	Robinia pseudoacacia			•													
3	Robinia pseudoacacia			•													
4	Acer rubrum										• •						
4	Vitis ~~sp~~ riparia										•						
4	Fraxinus americana														•		56.6, 56.3
4	Fagus grandifolia			•					• •								
4	Standing dead							•									50.4
4	Acer saccharum									•	•						

CLEVELAND METROPARKS Plant Community Assessment Program Natural Woody Stem Data Sheet

Cleveland Metroparks

Project Label: PCAP Project Name: 01 SC 2012 Plot No.: 1256 Page: 2 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)
4	Acer platanoides												•				
4	Ulmus rubra												•				
5	Acer platanoides									•							
5	Fraxinus americana													•			43.5, 45.0
5	Acer saccharum							•	••	•	•						
5	Ulmus rubra									•							
5	Acer rubrum											•	•				47.6
5	Standing dead										•		•				
5	Lonicera morowii			••		2											
5	Ligustrum vulgare			•													
6	Fagus grandifolia											•					
6	Standing dead								•	•		•			X	•	
6	Acer saccharum									•			•		•		
6	Acer rubrum										•				•		
6	Lonicera morowii			•		•											
7	Pinus ~~sp.~~ nigra															••	48.2
7	Fraxinus americana															•	
7	Fagus grandifolia								•								
7	Acer rubrum										•		•				
7	Toxicodendron radicans						•		•								
7	Standing dead										•		•		•		
7	Prunus serotina			•													
8	Acer rubrum										•			•	•		
8	Acer saccharum										•						

CLEVELAND METROPARKS Plant Community Assessment Program Natural Woody Stem Data Sheet

Cleveland Metroparks

Project Label: PCAP   Project Name: 01 SC 2012   Plot No.: 1256   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)
8	Prunus serotina			:													
9	Acer rubrum																60.4
9	Rhamnus ~~[illegible]~~ frangula			L:		:											
9	Prunus serotina			.													
10	Acer rubrum															.	55.8, 52.8
10	Acer rubrum												.				51.3, 47.4,
10	Rhamnus ~~[illegible]~~ frangula			⊔		⊠											
10	Lindera benzoin			.													
10	Prunus serotina			:													
10	Berberis thunbergii			.		.											

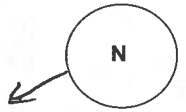
measured at 1.5 meters

combine

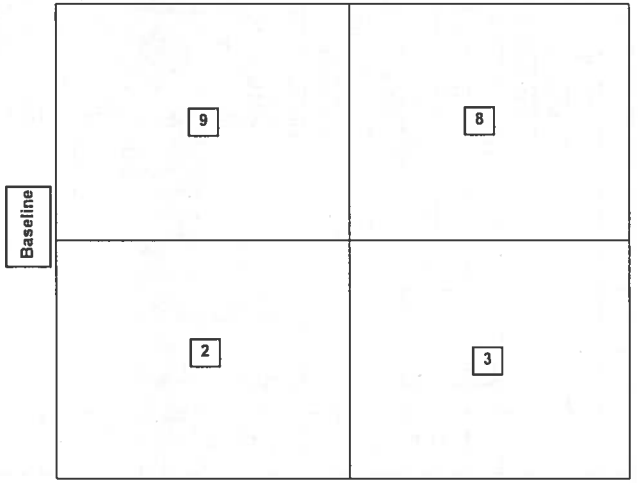
CLEVELAND METROPARKS Emerald Ash Borer - Fraxinus Sheet *INTENSIVE MODULES ONLY* *TREES ≥ 10CM ONLY*

Project Label: PCAP Project Name: 01SC2012 Plot No.: 1256 Date: 30 July 2012

								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 Fraxinus										
	2											
	3											
	4											
	5											
	6											
	7											
	8											
	9											
	10											
	11											
	12											
	13											
	14											
	15											
	16											
	17											
	18											
	19											
	20											
	21											
	22											
	23											
	24											
	25											



*** 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: 01 SC ~~1256~~ 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, weakly 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	-	Ø	Ø	1	30	3	Ø	2	1
3	-	Ø	Ø	2	29	5	Ø	2	1
8	-	Ø	Ø	1	16	4	Ø	2	1
9	-	Ø	Ø	1	21	3	Ø	2	1

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 corresonding space. (4 dots per grid square)

Module	N	S	E	W
2	7	6	9	5
3	6	6	11	4
8	5	8	8	5
9	13	16	13	8

31

15

21

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

Project label: PCAP Project Name: Ø1SC2Ø12 Plot No.: 1256

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)

5 cm	matrix color	10yr 4/2	
	mottle color	N/A	
	%mottle	N/A	
	oxid roots	Y	(N)
	texture*	1	
	redox features**	Y	(N)
	hydr cond ***	I S M (D)	
20 cm	matrix color	2.5y 4/4	
	mottle color	N/A	
	%mottle	N/A	
	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 castings or earthworms present

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: Wadsworth silt loam

Soil Series Source: Ohio Soil Survey

Landform type: Knolls

Depth to rest. Layer: >80"

Parent Material: Till

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

SL 8/13/12

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	3.5	3.5	Ø	>3Ø
3	3.0	3.0	Ø	>3Ø
8	4.0	4.0	Ø	>3Ø
9	4.5	4.5	Ø	>3Ø

EARTH SURFACE & GROUND COVER

Underlying Earth Surface* (Sum = 100%)	percent	Ground Cover (Each ≤ 100%)	percent
Histosol	Ø	Coarse Woody Debris***	8
Mineral Soil	99	Fine Woody Debris****	5
Gravel-Cobble*	1	Litter	95
Boulder**	Ø	Duff (Ferm + Humus)	0
Bedrock	Ø	Bryophyte- Lichen	2
* Gravel-Cobble = 1/16-10"		Water	0
**Boulder = > 10 in		Bare Soil	0
*** >5 cm in diameter		Road/Trail	0
**** <5 cm in diameter		Other	0

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	>5	93
Shrub	.5-5	3
Herb	<.5	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: PCAP SC 1256

DATE: 07/30/2012

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

2

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 ◉ 4			Herbs, Forbs and Grasses	0 1 2 3 4			Herbs, Forbs and Grasses	0 1 2 3 4		
Bare ground	0 1 ◉ 3 4			Bare ground	0 1 2 3 4			Bare ground	0 1 2 3 4		
Litter, duff	◉ 1 2 3 4			Litter, duff	0 1 2 3 4			Litter, duff	0 1 2 3 4		
Rock	0 1 ◉ 3 4			Rock	0 1 2 3 4			Rock	0 1 2 3 4		
Water	◉ 1 2 3 4			Water	0 1 2 3 4			Water	0 1 2 3 4		
Submerged Vegetation	◉ 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	◉	○	○	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

Buck morrowii typha

Berb Rosa

mow Priva

FORM B-1: BUFFER SAMPLE PLOTS (Front)

Reviewed by (initial): _____

Site ID: PCAP SC1256 **DATE:** 07/30/2012

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

Fill bubble if present - Plot	1	2	3	Flag
Road - gravel	○	○	○	
Road - two lane	○	○	○	2
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	●	○	○	i
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 1256 **DATE:** 07/30/2012

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

	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	○	○	○	
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 1256 **DATE:** 07/30/2012

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		1	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 SR 1256 DATE: 07/30/2012

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