Need Waders or

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

Project Label: PCAP **Plot No:** 1235 **Date Sampled:** 07/25/12 **Lead:** M. Brett

			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	No Ash
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) JER028-JER034	Press (#)		Enter number to left
	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:

Call CVNP comms center 1-800-433-1986 to let know

Wetland Plot

CLEVELAND METROPARKS Plant Community Assessment Program - Background Data Sheet

GENERAL INFORMATION

Project Label: PCAP

Project Name: 01Br2012

Plot Name: Beaver Fewer

Plot No.: 1235

☐ Level 4 (no nested corners sampled)

■ Level 5 (nested corners sampled)

Date (mm/dd/yyyy): 07 / 19 / 2012

End date (if > 1 day): / /

Party	Role**
M. Breth	Plot leader
S. Reinier	Co-lead
S. Catella	Field Tech
T. Kistler	Field Tech

** 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: Cuyhoga

Quadrangle: Northfield

Local Place Names: Pulloff at riverview RJ.

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: 41.34188

Longitude: 81.59509

Coord. Accuracy: ☑ m ☐ ft 1.0 +-

GPS File Name: 1235A

Plot size for cover data: 0.1 (hectares)

X-axis Bearing of plot: [197] °

Depth: (1-5): 4

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

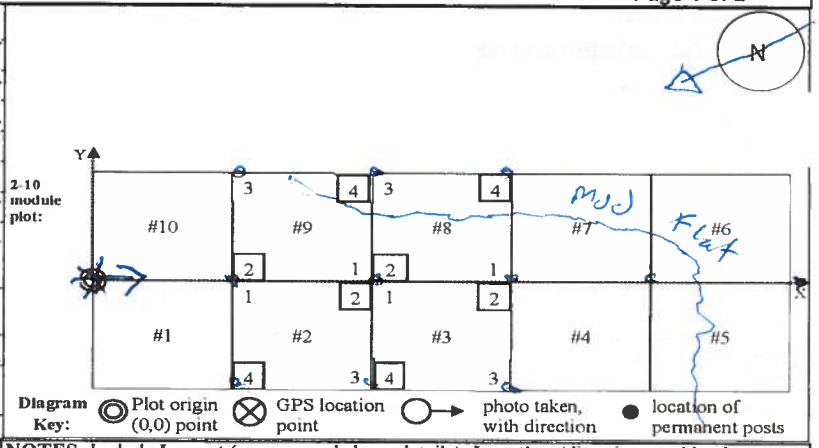
Camera No.: John Reinier's camera

Photo Nos.: 0825

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: Plot falls in Emergent / wet meadow at Edge of Floodplain woods. - Elm, Ash, Maple

Rational: GRTS Point

Veg Char: Herb- Leersia, Sparganium, Scirpus, & Carex

Minimum required fields in Bold and Underlined

*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: 01Br2012 — Plot no.: 1235

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	Ø			1	Ø			1	Ø			1	0				
%unvegetated open water	1	Ø			1	Ø			1	Ø			1	G				
%unveg. ground (bare soil)	1	Ø			1	Ø			1	6			1	4				
%unveg. litter (bare litter)	1	Ø			1	Ø			1	Ø			1	Ø				

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
		4				Lysemachia nummularia			4	4			4	2													4	2				
		2				Onoclea sensibilis			4	2																						
		2				Boehmeria cylindrica			4	2			3	2																		
		2			B	Fraxinus ~~canadensis~~ pennsylvanica			4	2													2	1								
		2				Carex lurida			4	2			4	2															2	2		
		6				Leersia oryzoides			4	4	4		3	5	4		2	5	4								4	6				
		6				Scirpus cyperinus			3	5	3		4	4	3				3	2							2	5				
		2				Carex vulpinoidea			3	3																						
		1				Equisetum arvense			3	2																						
		2			B	Rosa multiflora			3	2																						
		1				Agrimonia parviflora			4	2																						
2						Ulmus americana			4	4																						
2						Acer saccharinum			4	4																						
		1				Cornus sp.			3	1																						
		5				Carex emoryi			2	3																						
		4				Carex crinita var crinita SEE 8/10/12			2	4	3		2	2																		
		2				Carex cristatella			2	2			3	2																		
		1				Viburnum dentatum			2	1																						
		2				Vitis riparia			2	1															2	2						
		2				Apocynum cannabinum			2	2															3	2						
		2				Galium ~~spurium~~ obtusum SEE 10/13 / IER032			2	3			2	2																		
		6				Sparganium eurycarpum			2	6	4		2	8	4		4	6	4				4	6	4							
		2				Polygonum ~~sagittatum~~			2	3																						
		2				Juncus effusus							2	2															2	3		
		3				Schoenoplectus tabernaemontani					4	4			4	6			4	6	2	2			2	2						

where I stopped

SEE 8/10-12

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

Project Label: PCAP Project name: GLBr2012 Plot no.: 1235

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
		5				Phalaris arundinacea					4	7	2	6	2				3	2	1	3						
		2				Asclepias incarnata					2	2	1	2					2	2	1	2						
		2				Lythrum salicaria			1	2											2							
		3				Polygonum Persicaria ✓	/	JER028	1	2			2	4	3				3	4	2	3	4					
		2				Sagittaria latifolia			1	2			2	2							2	2						
	4	4			2	Cephalanthus occidentalis			1	3					2	4					1	2						
		2				Peltandra virginica			1	2			4	2			4	2										
		1				Carex lupulina			1	2																		
		2				Pilea pumila							4	2														
		2				Carex stipata							2	2														
		2				Acer (seedlings)							2	1			1	1				2	2					
		3				Ludwigia palustris									4	3			2	3	2	4	3					
						~~Eleocharis~~ Cyperaceae																						
		2				Cyperus ~~sp.~~ ✓ strigosus	/	JER029									3	3			4	3						
		2				Unknown Poaceae ✓	/	JER031									2	2										
		2				Populus deltoides (seedling)											2	2			3	2						
		2				Echinochloa ~~sp.~~ ✓ crusgalli	/	JER030									2	1			3	3						
		2				Eleocharis acicularis															3	2						
		2				Lycopus americanus															3	2						
		2				~~Unknown Dicot~~ ✓ Salix sp.															3	2						
		1				Alisma subcordatum																	3	1				
		2				Leersia oryzoides																	2	2				
		2				Erechtites hieracifolia																	2	2				
		2				Carex lacustris																	2	2				
		1				Verbena hastata															1	2						

SREF-ID-13

ht glossy
vs

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

Project Label: PCAP Project name: OTBr2012 Plot no.: 1235

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:

	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	corner cov	mod 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	R depth	R cov
		1				Toxicodendron radicans																	1	1						
		1				Rosa spp.																							R	1
		2				Polygonum sp.																							R	2
		2				Iris sp.																							R	2
		2				Carex tribuloides ✓	/	JER034																					R	2
		2				Berberis thunbergii																							R	2
		2				Amphicarpa bracteata																							R	2
		2				Carex bromoides																							R	2
		1				Mentha arvensis																							R	1
		1				Impatiens capensis																							R	1
		2				Elymus virginicus ✓	/	JER033																					R	2

CLEVELAND METROPARKS Plant Community Assessment Program Natural Woody Stem Data Sheet

Cleveland Metroparks

Project Label: PCAP Project Name: ~~PCAP~~ Br 2012 Plot No.: 1235 Page: 1 of 1

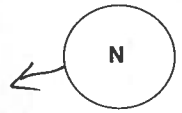
Explain subsample (additional room on back):

mod #	species	c	voucher#	# stems 0-1.4m browsed	% sub or super sample	# shrub clumps	size class (cm) woody stems >1.4m 1 0-<1	2 1-<2.5	3 2.5-<5	4 5-<10	5 10 - <15	6 15 - <20	7 20 - <25	8 25 - <30	9 30 - <35	10 35 - <40	11 >40 (record each tree)
1	Cephalanthus occidentalis					11											
1	Acer saccharinum									•	••						
1	Standing dead						•				•						
1	Rosa multiflora			L		L											
1	Fraxinus Pennsylvanica sp.			⊠⊠⊠													
1	Fraxinus Pennsylvanica sp.			::													
2	Cephalanthus occidentalis					3											
2	Acer saccharinum										•						
2	Fraxinus Pennsylvanica sp.			::													
3	Cephalanthus occidentalis			X		1											
4	Cephalanthus occidentalis					1											
5	Nothing in Mod																
6	Nothing in Mod																
7	Nothing in Mod																
8	Nothing in Mod																
9	Cephalanthus occidentalis			•		1											
10	Cephalanthus occidentalis			•		1											

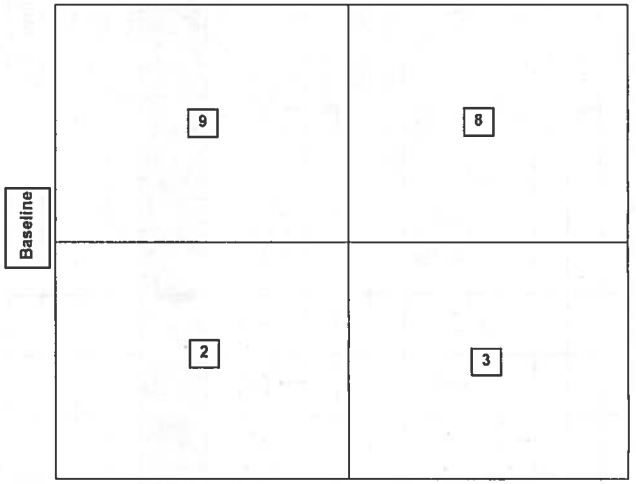
CLEVELAND METROPARKS Emerald Ash Borer - Fraxinus Sheet *INTENSIVE MODULES ONLY* *TREES ≥ 10CM ONLY*

Project Label: PCAP Project Name: OI Br 2012 Plot No.: 1235 Date: 07/25/2012

								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 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											



*** 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 - Soils, Crown Cover, Standing Biomass Data Sheet 6a

Project label: PCAP Project Name: 01 Br 2012 Plot No.: 1235

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	2.5Y 3/2
	mottle color	None
	%mottle	N/A
	oxid roots	(Y) N
	texture*	2
	redox features**	(Y) N
	hydr. cond.***	I S (M) D
20 cm	matrix color	2.5Y 4/2
	mottle color	None
	%mottle	N/A
	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)

no evidence
no worms

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: Tg, Tioga loam

Soil Series Source: Ohio Soil Survey

Landform type: Flood Plains

Depth to rest. Layer: >80 inches

Parent Material: Alluvium

DRAINAGE

- ☐ Excessively dr.
- ☐ Somewhat excessively
- X 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	3.2	3.2	Ø	>30
3	2.4	2.4	Ø	>30
8	2.6	2.6	Ø	>30
9	0.2	0.2	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	0
Boulder**	Ø	Duff (Ferm.+ Humus)	0
Bedrock	Ø	Bryophyte- Lichen	6
* Gravel-Cobble = 1/16-10"		Water	0
**Boulder = > 10 in		Bare Soil	28
*** >5 cm in diameter		Road/Trail	Ø
**** <5 cm in diameter		Other	Ø

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

Strata	Height Range (m)	Total Cover (%)
Tree	7 - 5	3
Shrub	0.5 - 5	3
Herb	4 - 5	78
(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.

TRAIL INFORMATION:

record type and cover for each

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

No Trail

STAND SIZE

- ☐ >600 x plot size
- ☐ > 100 x plot size
- ☐ 10-100 x plot size
- X 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: 01 Br 2012 Plot No.: 1235

Cleveland Metroparks

96 38 58

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=E Conf=H
- ☐ 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=E Conf=H
- ☐ 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

med#	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	-	22	Ø	Ø	1	Ø	Ø	3	Ø
3	-	15	Ø	Ø	~~Ø~~ 1	Ø	Ø	3	Ø
8	-	3	Ø	Ø	3	5	Ø	3	Ø
9	-	7	Ø	Ø	6	1	1	3	Ø

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	58	87	96	58
3	91	96	96	94
8	96	96	96	96
9	96	96	96	96

FORM B-1: BUFFER SAMPLE PLOTS (Front)

Reviewed by (initial): _____

Site ID: PCAP Bn 1235

DATE: 07/25/2012

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

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

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

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

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

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

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

Habitat/Vegetation Stressors	1	2	3	Flag
Herbicide Use	○	○	○	
Mowing/Shrub Cutting	○	○	○	
Trails	○	○	○	
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 Bu 2012 DATE: 07/25/2012

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)	● 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)	● 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)	● 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)	● 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 ●			Herbs, Forbs and Grasses	0 1 2 3 4			Herbs, Forbs and Grasses	0 1 2 3 4		
Bare ground	● 1 2 3 4			Bare ground	0 1 2 3 4			Bare ground	0 1 2 3 4		
Litter, duff	0 ● 2 3 4			Litter, duff	0 1 2 3 4			Litter, duff	0 1 2 3 4		
Rock	● 1 2 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					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: PCAPBr1235 DATE: 07/25/2012

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

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

Buffer Plot 3	Canopy Type: D ● E ○ Absent: ○ Leaf Type: B ● N ○					Flag
Big Trees (>0.3m DBH)	0	1	2	●	4	
Small Trees (<0.3m DBH)	0	1	●	3	4	
Woody Shrubs, Saplings (0.5m-5m HIGH)	0	⊗	●	3	4	
Woody Shrubs, Saplings (<0.5m HIGH)	0	●	2	3	4	
Herbs, Forbs and Grasses	0	1	2	3	●	
Bare ground	●	1	2	3	4	
Litter, duff	0	●	2	3	4	
Rock	●	1	2	3	4	
Water	●	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: possible beaver dam	●	○	○	1
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: PCAPBR ~~2012~~ 1235

DATE: 07/25/2012

Location: ○ AA Center ○ N ○ S ● E ○ W

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

1

Buffer Natural Cover Strata

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

Buffer Plot 1 (Canopy Type: ● E, ○ Absent; Leaf Type: ● N)	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: ● E, ○ Absent; Leaf Type: ● N)	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)	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: PCAPBr1235 **DATE:** 10/25/2012

Location: ○ AA Center ○ N ● S ○ E ○ W

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

Buffer Natural Cover Strata

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

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

Buffer Plot 2	Canopy Type: ○ D ○ E ○ Absent: ○ Leaf Type: ○ B ○ N					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 ○ Absent: ○ Leaf Type: ○ B ○ N					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