CLEVELAND METROPARKS Plant Community Assessment Program: Quality Control Form

Project Label: PCAP **Plot No:** 1254 **Date Sampled:** 7-20-12 **Lead:** Eisenbach

			Comment required if item answer is NO
Parking/Access outside of Park Boundaries:		Y (N)	If yes, write details in Comments section below
Field journals completed		(Y) N	
Site sketch made on 1:3000 map?		(Y) N	
Check cover page	X-axis Bearing of plot recorded	(Y) N	
	GPS coords. Recorded	(Y) N	
	North direction recorded	(Y) N	
	Photographs taken?	(Y) N	
Plot No., Date agreement on all pages?		(Y) N	
Header data completed all pages?		(Y) N	
Cover classes recorded in all Intensive modules		(Y) N	
Browse Level By Species		(Y) N	
Woody stem quality control check		(Y) N	
Invasive plant quality control check		(Y) N	
Ash trees mapped		(Y) N	
Cover by Strata? (confirm cover type)		(Y) N	
Soil samples collected with matching plot #.		(Y) N	
Vouchers labeled on datasheet with initials and number		(Y) N	
Vouchers labeled on collection bag		(Y) N	
Pink flags removed		(Y) N	
Data sheet QA before leaving site?		(Y) N	
Common equipment returned to tub.		Y N	
Data sheets scanned?		7/25/12	Enter date to left NZ
Final data sheets scanned?			Enter date to left
Buffer Widths measured?		(Y) N	KFL 6-29-12
Web Soil Survey		(Y) N	TK 7-27-12
Voucher Location	Refrigerator	Y N	
(# vouchers collected)	Press (#)		Enter number to left
SRF 554 562	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

No Pins Yet

GENERAL INFORMATION

Project Label: PCAP

Project Name: 01 MS2012

Plot Name: Triple Nettle

Plot No.: 1254

☐ Level 4 (no nested corners sampled)

■ Level 5 (nested corners sampled)

Date (mm/dd/yyyy): 7 /20/ 12

End date (if > 1 day): / /

Party	Role**
S. Eysenbach	Plot leader
N. Zimmerman	Bot Asst
T. Kistler	Asst
J. Pettit	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: Berea

Local Place Names: Valley Pkwy + Eastlan Road

Landowner: CM

Data Confidentiality:

Check one: ☐ Public data ☐ Private Data

☐ Fuzz 100m ☐ Fuzz 250m ☐ Fuzz 500m

Reason:

If data not public why?

Source of coordinates ☐ MAP ■ GPS

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

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

Datum: ■ NAD83/WGS84 ☐ NAD27

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

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

Latitude: 41.35151

Longitude: -81.846624

Coord. Accuracy: ☑ m ☐ ft +- 3.9

GPS File Name: 1254

Plot size for cover data: 0.1 (hectares)

X-axis Bearing of plot: [356] °

Depth: (1-5): 4

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

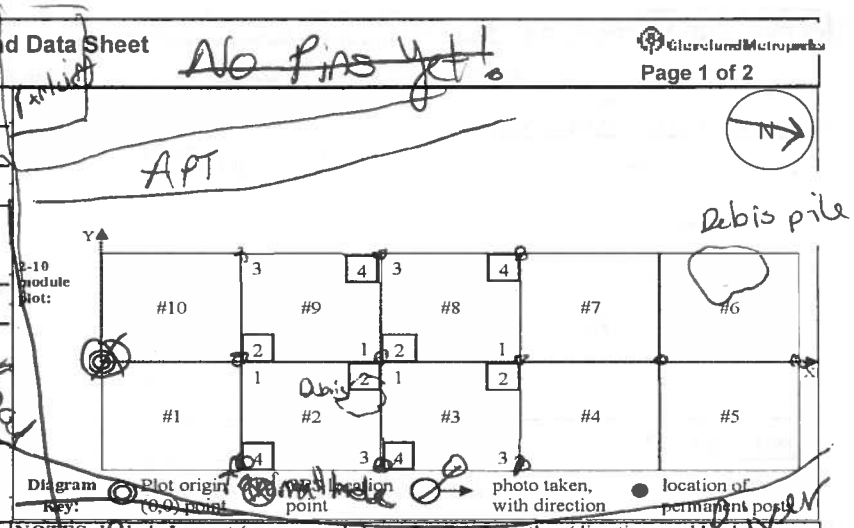
Camera No.: 2

Photo Nos.: C2-1902

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 west of the river. Walk 40m to the east. Plot is along the river

Rationale: GRTS pt fell at (0,-1) moved to fit full plot and avoid river

Veg Char: Canopy: Sycamore, Walnut, Red Elm, Buckeye, Boxelder Ash

Shrub: Boxelder, Buckeye

Herb: Wingstem, Sanicle

OVER

Minimum required fields in Bold and Underlined

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

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

Project Label: PCAP Project name: OIMS2012 Plot no.: 1254

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

T	S	H	(F)	(A)	Br	Species SRE 8-22-12	c	Voucher #	depth	cov	depth	cov	depth	cov	depth	cov	depth	cov	depth	cov	depth	cov	depth	cov	depth	cov
								mod / corner	2	4	2	2	3	4	3	2	8	4	8	2	9	4	9	2	R	R
						Estimate for each intensive module: %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					
		3				Urtica dioica var dioica			1	1			2	2			-1	2			-1	1				
		1			10	Ligustrum vulgare			1	1											1	1				
		1				Lonicera maackii							-1	1												
		2				Carex gracil							-1	2			-		2	2	1	2				
		2			8	~~Anemonella thalictroides~~ Thalictrum pubescens									3	1					2	1				
		1				Arisaema triphyllum var triphyllum									2	1										
		2				Poa trivialis							1	2							3	2				
	3	2			10	Cornus ~~sp.~~ amomum							1	4												
		1				Quercus sp. (seedling)							1	1												
4						Ulmus americana											2	4								
		2				Elymus hystrix											-		2	2	-1	2				
		1				Parthenocissus quinquefolia											1	1								
		2				Monarda fistulosa																			R	2
		1				Juncus tenuis																			R	1
		1				Lysimachia nummularia																			R	2
		2				Glyceria striata																			R	2
		1				Galium sp.																			R	1
		1				Bidens sp																			R	1
		1				Solidago sp. (glaucous)																			R	1
		1			10	Scutellaria lateriflora																			R	2
		2				Unk poaceae sp. C2 2513	/	C2 1936-37 (hairy sheaths)																	R	1
		1				Unk dicot Mimulus ringens	/	C2 1938-42																	R	1
3						Populus deltoides																			R	4
4						Acer platanoides																			R	5
4						Quercus rubra																			R	5

fuzzy not fuzzy seedhead

Fuzzy seeds smooth sheaths Reichards SRE 551.

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

Project Label: PCAP Project name: OMS2012 Plot no.: 1254

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

T	S	H	(F)	(A)	Br	Species	c	Voucher #	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					
		2			+U	Euonymus alatus																				R	2
		2				Rudbeckia laciniata																				R	2
4						Acer saccharum																				R	5
		1				Dryopteris carthusiana																				R	1
		1				Taraxacum officinale																				R	1
		1				Ipomoea sp																				R	1
		1				Calystegia sepium																				R	1
		1			D	Rubus sp																				R	1

CLEVELAND METROPARKS Plant Community Assessment Program Natural Woody Stem Data Sheet

Project Label: PCAP Project Name: 01MS2012 Plot No.: 1254 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	Aesculus glabra			x			::			::							
✓ 1	Prunus virginiana			::		1:		::									
✓ 1	Acer negundo									•							
✓ 1	Fraxinus sp.									•	•	•			•		
✓ 1	Standing dead							•	•								
✓ 1	Rosa multiflora			•													
✓ 2	Prunus virginiana			::			•	•									
✓ 2	Standing dead							::	•								
✓ 2	Aesculus glabra						::	::	•		•						
~~2~~	~~Fraxinus~~																
✓ 2	Juglans nigra													•			
✓ 2	Lindera benzoin			•		•											
✓ 2	Acer negundo			x					••	•					•	•	
✓ 2	Rosa multiflora			::													
✓ 3	Vitis riparia			::				::	•	•							
✓ 3	Acer negundo			•			•	•			•	•					
✓ 3	Aesculus glabra								::	::							
✓ 3	Standing dead								•								
✓ 3	Cornus ~~florida~~ amomum							::	x:								
✓ 3	Ulmus rubra											•					
✓ 4	Aesculus glabra								•	•		•					
✓ 4	Rosa multiflora			::		::											
✓ 4	Acer negundo													•			
✓ 4	Vitis riparia									::							

* There are no trees in mod 5. ☆

CLEVELAND METROPARKS Plant Community Assessment Program Natural Woody Stem Data Sheet

Cleveland Metroparks

Project Label: PCAP Project Name: 01MS2012 Plot No.: 1254 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 Prunus virginiana			••		••	••	•	•								
✓	6 Aesculus glabra			••				•		•							
✓	6 Fraxinus pennsylvanica			:				•	•	•							
✓	6 Acer negundo			•				•	•				•		:		
✓	6 Prunus virginiana						:										
✓	6 Standing dead							•	X								DT.S
✓	6 Rubus sp.			•		•											
✓	6 Rosa multiflora			•													
✓	7 Standing dead																47.5, 40.5
✓	7 Acer negundo			•							•			•		•	
✓	7 Juglans nigra																52.4
✓	7 Aesculus glabra						•	•		•	:						
✓	7 Ligustrum vulgare			•		•											
✓	7 Vitis riparia							•									
✓	7 Fraxinus sp.	✓		:							•						
✓	7 Prunus virginiana					•											
✓	8 Standing dead								:		•						
✓	8 Vitis riparia			•					•	•							
✓	8 Fraxinus pennsylvanica			•				:	:		•						
✓	8 Aesculus glabra							:									
✓	8 Acer negundo								•				•				
✓	9 Aesculus glabra							::	•	•		•			•	•	
✓	9 Prunus virginiana			:		☒	:										
✓	9 Standing dead						•		•								

CLEVELAND METROPARKS Plant Community Assessment Program Natural Woody Stem Data Sheet

Project Label: PCAP Project Name: OIMS 2012 Plot No.: 1254 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 Acer negundo			•								•					
✓	9 Fagus																
✓	9 Platanus occidentalis																58.4
✓	9 Ulmus rubra								•								53.8
✓	9 Vitis riparia						:	•									
✓	9 Ligustrum vulgare					•											
✓	9 Fraxinus pennsylvanica						:										
✓	10 Prunus virginiana			•		:	: :										
✓	10 Aesculus glabra						:	:		:	•						
✓	10 Acer saccharum									•			•				
✓	10 Ulmus americana											• :					
✓	10 Fraxinus pennsylvanica						•	•									
✓	10 Acer negundo							•	•	•		•					
✓	10 Juglans nigra																63.8
✓	10 Vitis riparia						•	:									
✓	10 Standing dead									•							

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

Project Label: PCAP Project Name: 01MS2012 Plot No.: 1254 Date: 07/20/2012

								ASH Only				
Module	Tree ID.	Species	Dead	c	Voucher #	DBH (cm)	Ht @ DBH	Ash condition	*Dead condition	# Exit holes	Epicormic present	Woodpecker holes
8	1	Fraxinus pennsylvanica				11.4		2	N/A	Ø	1	Ø
	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: 01MS2012 Plot No.: 1254

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

Soil pit module # 8 (one per entire plot)

5 cm	matrix color	10YR3/2	
	mottle color	N/A	
	%mottle	0	
	oxid roots	Y	(N)
	texture*	2	
	redox features**	Y	(N)
	hydr. cond.***	I S (M) D	
20 cm	matrix color	10YR3/3	
	mottle color	N/A	
	%mottle	0	
	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)

Earthworm in soil pit.

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: Ch, Chagrin silt 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
- ☒ Well drained
- □ Moderately well dr.
- □ Somewhat poorly dr.
- □ Very poorly dr.
- □ Impermeable surface

PK 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	0.9	0.9	0	>30
3	1.2	1.2	0	>30
8	0.5	0.5	0	>30
9	0.5	0.5	0	>30

EARTH SURFACE & GROUND COVER

Underlying Earth Surface*		Ground Cover	
(Sum = 100%)	percent	(Each ≤ 100%)	percent
Histosol	Ø	Coarse Woody Debris***	X5
Mineral Soil	100	Fine Woody Debris****	8
Gravel-Cobble*	Ø	Litter	85
Boulder**	Ø	Duff (Ferm.+ Humus)	Ø
Bedrock	Ø	Bryophyte- Lichen	3
* Gravel-Cobble = 1/16-10"		Water	Ø
**Boulder = > 10 in		Bare Soil	24
*** >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 trails

COVER BY STRATA %

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

Strata	Height Range (m)	Total Cover (%)
Tree	>5	83
Shrub	1.5-5	53
Herb	<1.5	93
(Floating)*	-	
(Aquatic)*	-	

* rooted and floating or slightly emersed

** submersed, most plant mass below surface

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

STAND SIZE

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

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

Project Label: PCAP Project Name: 01MS2012 Plot No.: 1254

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	7	1	0	~~2~~ 1	0
3		0	0	2	15	1	0	~~2~~ 1	0
8		0	0	1	9	1	0	2	0
9		0	0	1	19	1	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	13	20	17	3
3	4	4	16	3
8	8	5	10	7
9	9	3	9	2

FORM B-1: BUFFER SAMPLE PLOTS (Front)

Reviewed by (initial): _____

Site ID: PIAP MS 1254 DATE: 07/20/2012

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

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: Flood wood debris	○	○	●	
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: PCAPMS1254 **DATE:** 07 / 22 / 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)	4	Big Trees (>0.3m DBH)	4	Big Trees (>0.3m DBH)	4
Small Trees (<0.3m DBH)	4	Small Trees (<0.3m DBH)	1	Small Trees (<0.3m DBH)	2
Woody Shrubs, Saplings (0.5m-5m HIGH)	1	Woody Shrubs, Saplings (0.5m-5m HIGH)	1	Woody Shrubs, Saplings (0.5m-5m HIGH)	2
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	2	Herbs, Forbs and Grasses	1	Herbs, Forbs and Grasses	2
Bare ground	1	Bare ground	2	Bare ground	2
Litter, duff	1	Litter, duff	1	Litter, duff	4
Rock	1	Rock	2	Rock	1
Water	1	Water	1	Water	1
Submerged Vegetation	1	Submerged Vegetation	1	Submerged Vegetation	1

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	●	○	○	1
Soil Compaction (ANIMAL OR HUMAN)	●	○	○	
Offroad vehicle damage	○	○	○	
Soil erosion (FROM WIND, WATER, OR OVERUSE)	○	○	○	
Other:	○	○	○	
Other:	○	○	○	

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

2428168304

FORM B-1: BUFFER SAMPLE PLOTS (Front)

Reviewed by (initial): _____

Site ID: PCAPMS1254 **DATE:** 07 / 20 / 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)	0	1	2	3	4	Flag
Big Trees (>0.3m DBH)	○	○	○	○	○	
Small Trees (<0.3m DBH)	○	○	○	○	○	
Woody Shrubs, Saplings (0.5m-5m HIGH)	○	○	○	○	○	
Woody Shrubs, Saplings (<0.5m HIGH)	○	○	○	○	○	
Herbs, Forbs and Grasses	○	●	○	○	○	
Bare ground	○	○	●	○	○	
Litter, duff	○	●	○	○	○	
Rock	○	●	○	○	○	
Water	○	○	○	●	○	
Submerged Vegetation	●	○	○	○	○	

Buffer Plot 2 (Canopy Type: D ● E ○ / Leaf Type: B ● N ○ / Absent: ○ / 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 ○ / Leaf Type: B ● N ○ / Absent: ○ / 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)	○	○	○	

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

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

2428168304

FORM B-1: BUFFER SAMPLE PLOTS (Front)

Reviewed by (Initial): _____

Site ID: PcAPMS1254 **DATE:** 07 / 20 / 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)	2	Big Trees (>0.3m DBH)	0	Big Trees (>0.3m DBH)	0
Small Trees (<0.3m DBH)	3	Small Trees (<0.3m DBH)	0	Small Trees (<0.3m DBH)	0
Woody Shrubs, Saplings (0.5m-5m HIGH)	2	Woody Shrubs, Saplings (0.5m-5m HIGH)	0	Woody Shrubs, Saplings (0.5m-5m HIGH)	0
Woody Shrubs, Saplings (<0.5m HIGH)	3	Woody Shrubs, Saplings (<0.5m HIGH)	0	Woody Shrubs, Saplings (<0.5m HIGH)	0
Herbs, Forbs and Grasses	2	Herbs, Forbs and Grasses	0	Herbs, Forbs and Grasses	0
Bare ground	1	Bare ground	0	Bare ground	0
Litter, duff	2	Litter, duff	0	Litter, duff	0
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: PCAPMS1254 **DATE:** 07 / 20 / 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	Buffer Plot 2	Buffer Plot 3
Canopy Type:	● D ○ E	● D ○ E	● D ○ E
Absent:	○	○	○
Leaf Type:	● B ○ N	● B ○ N	● B ○ N
Flag			
Big Trees (>0.3m DBH)	4	0	3
Small Trees (<0.3m DBH)	1	1	1
Woody Shrubs, Saplings (0.5m-5m HIGH)	2	0	0
Woody Shrubs, Saplings (<0.5m HIGH)	1	0	0
Herbs, Forbs and Grasses	3	4	4
Bare ground	1	0	0
Litter, duff	3	1	1
Rock	1	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	○	○	○	
Road - four lane	○	○	○	
Parking Lot/Pavement	○	○	○	
Golf Course	○	○	○	
Lawn/Park	○	●	●	1
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