

CLEVELAND METROPARKS Plant Community Assessment Program: Quality Control Form

Project Label:

PCAP



Plot No: 1369 Date Sampled: 8/12/13

Lead: J. Miller

Comment required if item answer is NO

If yes, write details in Comments section below

Parking/Access outside of Park Boundaries:	<input checked="" type="radio"/> Y <input type="radio"/> N	
Field journals completed	<input checked="" type="radio"/> Y <input type="radio"/> N	
Site sketch made on 1:3000 map?	<input checked="" type="radio"/> Y <input type="radio"/> N	
Check cover page	X-axis Bearing of plot recorded <input checked="" type="radio"/> Y <input type="radio"/> N	
	GPS coords. Recorded <input checked="" type="radio"/> Y <input type="radio"/> N	
	North direction recorded <input checked="" type="radio"/> Y <input type="radio"/> N	
	Photographs taken? <input checked="" type="radio"/> Y <input type="radio"/> N	
Plot No., Date agreement on all pages?	<input checked="" type="radio"/> Y <input type="radio"/> N	
Header data completed all pages?	<input checked="" type="radio"/> Y <input type="radio"/> N	
Cover classes recorded in all Intensive modules	<input checked="" type="radio"/> Y <input type="radio"/> N	
Browse Level By Species	<input checked="" type="radio"/> Y <input type="radio"/> N	
Woody stem quality control check	<input checked="" type="radio"/> Y <input type="radio"/> N	
Invasive plant quality control check	<input checked="" type="radio"/> Y <input type="radio"/> N	
Ash trees mapped	<input checked="" type="radio"/> Y <input type="radio"/> N	
Cover by Strata? (confirm cover type)	<input checked="" type="radio"/> Y <input type="radio"/> N	
Soil samples collected with matching plot #.	<input checked="" type="radio"/> Y <input type="radio"/> N	
Vouchers labeled on datasheet with initials and number	<input checked="" type="radio"/> Y <input type="radio"/> N	
Vouchers labeled on collection bag	<input checked="" type="radio"/> Y <input type="radio"/> N	
Pink flags removed	<input checked="" type="radio"/> Y <input type="radio"/> N	
Data sheet QA before leaving site?	<input checked="" type="radio"/> Y <input type="radio"/> N	→ rain... did @ car
Common equipment returned to tub.	<input checked="" type="radio"/> Y <input type="radio"/> N	
Data sheets scanned?	CL 206-213	Enter date to left
Final data sheets scanned?		Enter date to left
Buffer Widths measured?	<input checked="" type="radio"/> Y <input type="radio"/> N	BB 6-28-13
Web Soil Survey	<input checked="" type="radio"/> Y <input type="radio"/> N	CL 8-16-13
Voucher Location	Refrigerator <input checked="" type="radio"/> Y <input type="radio"/> N	
(# vouchers collected) 206-213 JAM	Press (#) Drier Identified Mounted Thrown away	Enter number to left
	Y N Y N Y N Y N Y N	

GRTS point verification: Is plot sampleable?

<input checked="" type="checkbox"/> Yes	Original GRTS point is sampleable
<input type="checkbox"/> No	Original GRTS point lands in a non-sampleable area (fill in category below)
<input type="checkbox"/> Point falls in a water (i.e. river, lake)	
<input type="checkbox"/> Managed/mowed area (i.e. golf course, picnic area, right-of-way)	
<input type="checkbox"/> Paved area (i.e. parking lot, road)	
<input type="checkbox"/> Unsafe to sample (i.e. steep slope)	
<input type="checkbox"/> Other	

Additional Comments:



# CLEVELAND METROPARKS Plant Community Assessment Program - Background Data Sheet

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Page 1 of 2

<b>GENERAL INFORMATION</b>		<b>LOCATION</b>								
Project Label: PCAP		State: OH County: Cuyahoga								
Project Name: 01 NC 2013		Quadrangle: INK.								
Plot Name: Hungry, hungry Salamander.		Local Place Names: River Grove Picnic Area								
Plot No.: 1369		Landowner: CMP								
<input type="checkbox"/> Level 4 (no nested corners sampled) <input checked="" type="checkbox"/> Level 5 (nested corners sampled)										
End date (if > 1 day): / /										
Party	Role**	Reason:								
J. Miller	Plot leader	If data not public why?								
T. Lizardo	Bot. Asst.	Source of coordinates								
C. DeVono	Woody Tech	Coordinate system:								
C. Lemmo	" "	Lat/Long <input type="checkbox"/> UTM <input type="checkbox"/> StatePlane <span style="float: right;"><u>Coord. Units</u></span>								
		m deg <input type="checkbox"/> deg min <input type="checkbox"/> m <input type="checkbox"/> ft <input type="checkbox"/>								
<b>PLOT NOT SAMPLED:</b>		Datum: ■ NAD83/WGS84 <input type="checkbox"/> NAD27								
		GPS location in plot x=0 to 5, y=-1,0,+1: x = 0      y = 0 (base of plot x=0, y=0)								
<input type="checkbox"/> Perm. water <input type="checkbox"/> Paved <input type="checkbox"/> Slope <input type="checkbox"/> Safety		<u>Latitude:</u> N 41° 57' 11"								
		<u>Longitude:</u> W 081° 42' 40"								
<u>Effort Level:</u> <input checked="" type="checkbox"/> Very thorough <input type="checkbox"/> Accurate <input type="checkbox"/> Hurried		<u>Location:</u> Park @ River Grove Picnic Area and walk south through field (towards backstop fence of Bawdell diamond) to join onto Squire Valley Trail. Take S. to plot #1 just before bridge over stream. Plot straddles stream's floodplain and path. <u>Rationale:</u> GRTS point								
<u>Sampling Quality*</u> <small>subjective evaluation of how much effort put into sampling. Hurried plots may still provide good data</small>		<u>Layout:</u> 2 x 5								
		<u>Diagram:</u> ● Plot origin (0,0) point    X GPS location point → photo taken, with direction    ● location of permanent posts								
		<b>NOTES:</b> 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.								
<u>TAXONOMIC ACCURACY</u> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>high</td> <td>moder.</td> <td>low</td> <td>not samp!</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td>n/a</td> </tr> </table>		high	moder.	low	not samp!	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	n/a	<u>X-axis Bearing of plot:</u> [ 50 ] ° <u>Plot size for cover data:</u> 0.1 (hectares) <u>GPS File Name:</u> 1369A
high	moder.	low	not samp!							
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	n/a							
<u>TAXONOMIC STANDARD</u> <u>Authority:</u> G&C    Pub Date: 1998		<u>Veg. Characterization:</u> Mixed forest dominated by Sugar Maple and Tulip in the canopy, with Ulmus, Fagus grandifolia, Fraxinus, Tilia, Sycamore, Prunus serotina, Juglans and a Betula alleghaniensis. The shrub layer is mostly young Acer saccharum with Ulmus, cornus, Hamamelis and multiplum rose. The herbaceous layer is fairly lush with juncos.								

Minimum required fields in Bold and Underlined

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

OVER



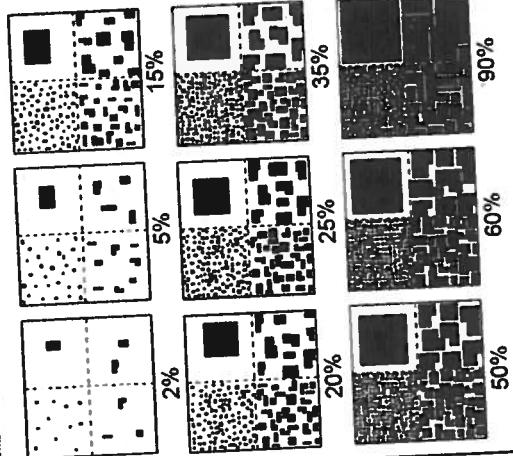






#### EXAMPLES OF PERCENT OF AREA COVERED

The following graphic can be used for various data elements to convey "Amount" or "Quantity". **NOTE:** Within any given box, each quadrant contains the same total area covered, just different sized objects.



#### **BROWSE RATING NARRATIVE DESCRIPTION**

**LOW OR NONE:** there is no measurable browse line AND there are very few or no plants 1-m nested quadrat and intensive module. In general, low values relate to less than 10 percent, by numbers of stems browsed.

**MEDIUM LOW** values include evidence of browse at about 10 percent of the stems with no significant impact to plant reproduction evident. In this rating, plants are browsed but preferential species are observed to be reproducing in numbers that appear normal or near-normal in comparison to low browse areas. For example, trilliums may flower and fruit, but jewelweed and arrowwood viburnum exhibit browse.

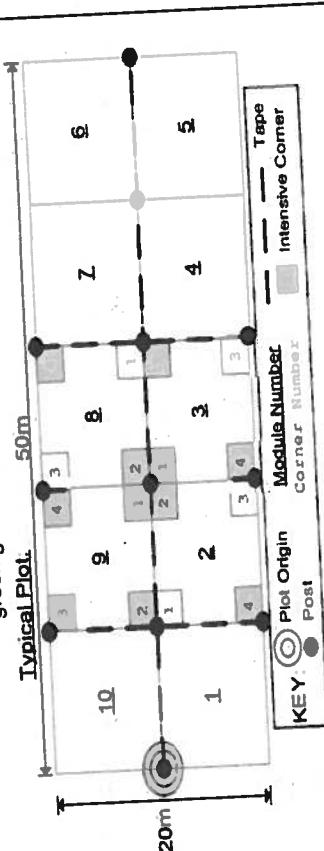
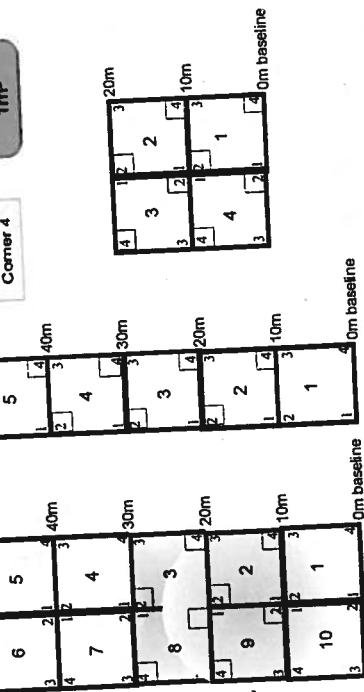
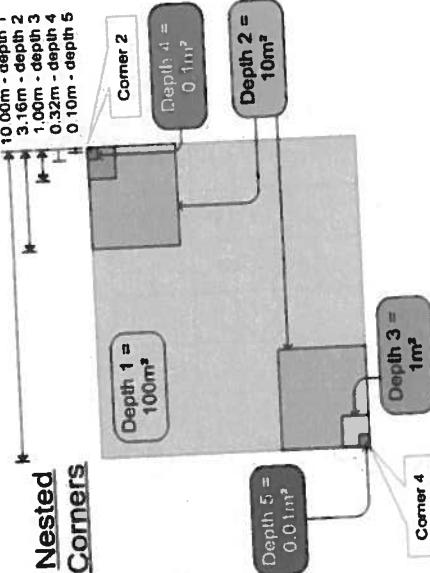
**MEDIUM:** browse affects greater than 10 percent and less than 25 percent of stems in the 1 m<sup>2</sup> nested quadrat and intensive module. A browse line is usually not evident or obvious for all classes and species of vegetation, but careful examination may show preferential browse and/or browse lines for some species of plants.

**MEDIUM HIGH** values include evidence of a browse line and 25 percent of stems browsed with very little vegetation regeneration evident. In this rating, for some species of plants, reproduction does not appear to occur or it is very severely limited.

**HIGH:** greater than 25 percent of the stems of plants in the 1 m<sup>2</sup> nested quadrat and intensive module **AND** a browse line is evident.

**VERY HIGH** values include extensive browse conditions where the browse line is very evident **AND** almost all seedlings and herbs are severely browsed or missing. Browse line may be 5 to 6 feet in height with no or little green growth beneath.

cover class	% cover	midpoint
1	solitary or few	0.0001
2	0-1%	0.005
3	1-2%	0.015
4	2-5%	0.035
5	5-10%	0.075
6	10-25%	0.175
7	25-50%	0.375
8	50-75%	0.625
9	75-95%	0.850
10	95-100%	0.975



CLEVELAND METROPARKS Plant Community Assessment Program Species Cover Data Sheet

Project Label:

BCAD

Hogian Species Cover Data Sheet 2a

Page 2 of 4

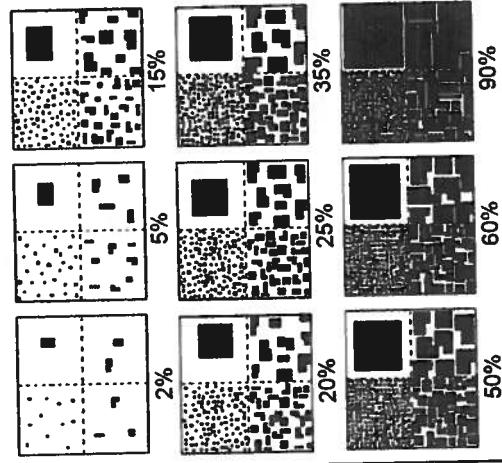
Total modules: \_\_\_\_\_ / 10

Intensive modules: 4  
Project management: 3 ✓ E

Plot area (ha): 6.1

#### EXAMPLES OF PERCENT OF AREA COVERED

The following graphic can be used for various data elements to convey "Amount" or "Quantity". **NOTE:** Within any given box, each quadrant contains the same total area covered, just different sized objects.



#### BROWSE RATING NARRATIVE DESCRIPTION

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**MEDIUM LOW** values include evidence of browse at about 10 percent of the stems with no significant impact to plant reproduction evident. In this rating, plants are browsed but preferential species are observed to be reproducing in numbers that appear normal or near-normal in comparison to low browse areas. For example, trilliums may flower and fruit, but jewelweed and arrowwood viburnum exhibit browse.

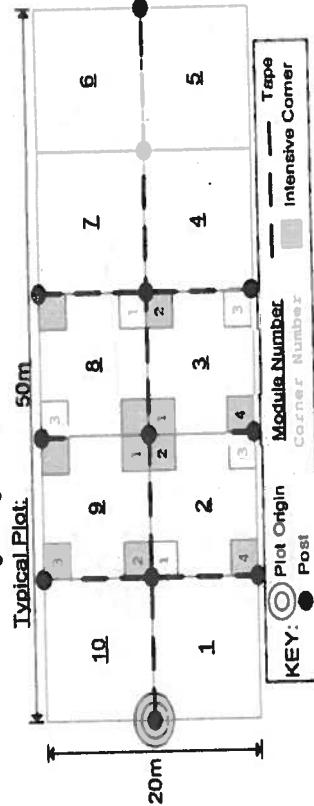
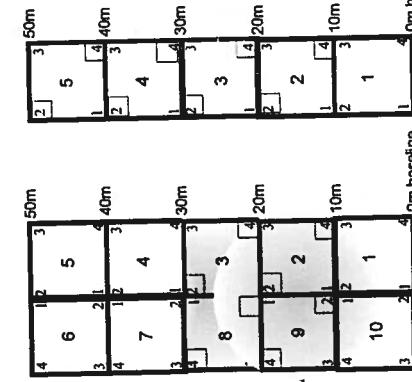
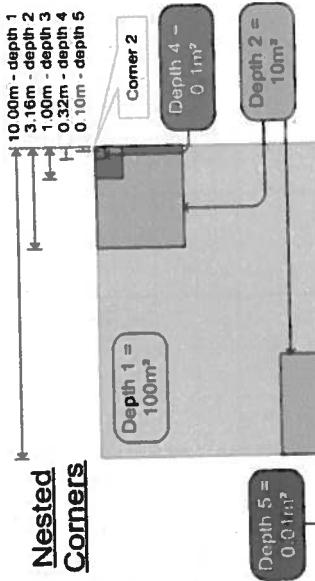
**MEDIUM:** browse affects greater than 10 percent and less than 25 percent of stems in the 1 m<sup>2</sup> nested quadrat and intensive module. A browse line is usually not evident or obvious for all classes and species of vegetation, but careful examination may show preferential browse and/or browse lines for some species of plants.

**MEDIUM HIGH** values include evidence of a browse line and 25 percent of stems browsed with very little vegetation regeneration evident. In this rating, for some species of plants, reproduction does not appear to occur or it is very severely limited.

**HIGH:** greater than 25 percent of the stems of plants in the 1 m<sup>2</sup> nested quadrat and intensive module **AND** a browse line is evident.

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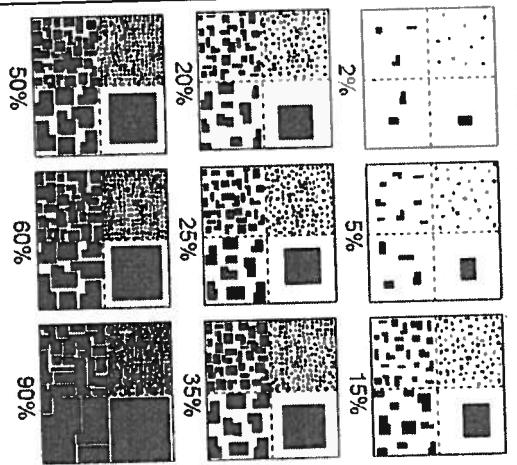
cover class	% cover	midpoint
1	solitary or few	0.0001
2	0-1%	0.005
3	1-2%	0.015
4	2-5%	0.035
5	5-10%	0.075
6	10-25%	0.175
7	25-50%	0.375
8	50-75%	0.625
9	75-95%	0.850
10	95-100%	0.975



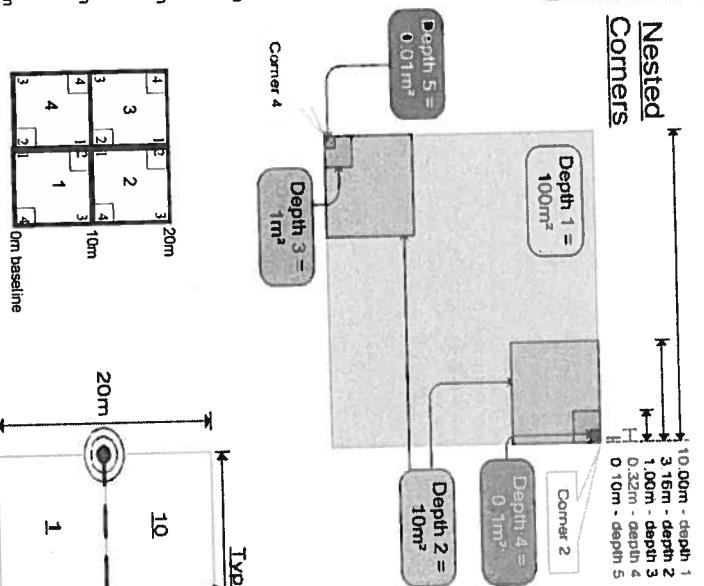


### EXAMPLES OF PERCENT OF AREA COVERED

The following graphic can be used for various data elements to convey "Amount or Quantity." NOTE Within any given box, each quadrant contains the same total area covered, just different sized objects.



### Nested Corners



cover class	% cover	midpoint
1	solitary or few	0.001
2	0-1%	0.005
3	1-2%	0.015
4	2-5%	0.035
5	5-10%	0.075
6	10-25%	0.175
7	25-50%	0.375
8	50-75%	0.625
9	75-95%	0.850
10	95-100%	0.975

### BROWSE RATING NARRATIVE DESCRIPTION

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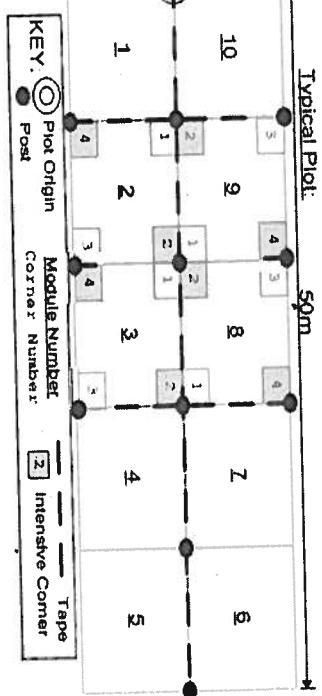
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**CLEVELAND METROPARKS Plant Community Assessment Program Species Cover Data Sheet 2a**

Project Label: PCAP

Project name: 01 NC 2013

Page 4 of 4

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

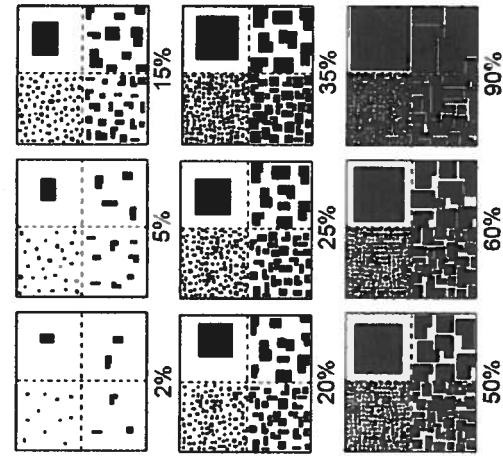
T	S	H	(F)	(A)	Br	Species	C	Voucher #	mod	corner															
2	X					<i>Mitchella</i> <del>anthoides</del>			3	3	4	4	4	4	7	7	7	7	8	8	8	8	R	R	
3	3					<i>Vitis americana</i>																			
3						<i>Betula allegheniensis</i>																			
i						<i>Tiarella cordifolia</i>																			
j						<i>Astrolobium</i> <del>lak</del> <del>dicot 3</del> <i>ASARINUM</i>																			
						<i>Artemesia annua</i>																			
						<i>Rubus cuthbertiae</i>																			
						<i>Ligustrum vulgare</i>																			
						<i>Rubus occidentalis</i>																			
						<i>Rubus pensylvanicus</i>																			
						<i>Amelanchier alnifolia</i>																			
						<i>Sorbus americana</i>																			

*large tree  
hedge*

*hedge  
plant*

#### EXAMPLES OF PERCENT OF AREA COVERED

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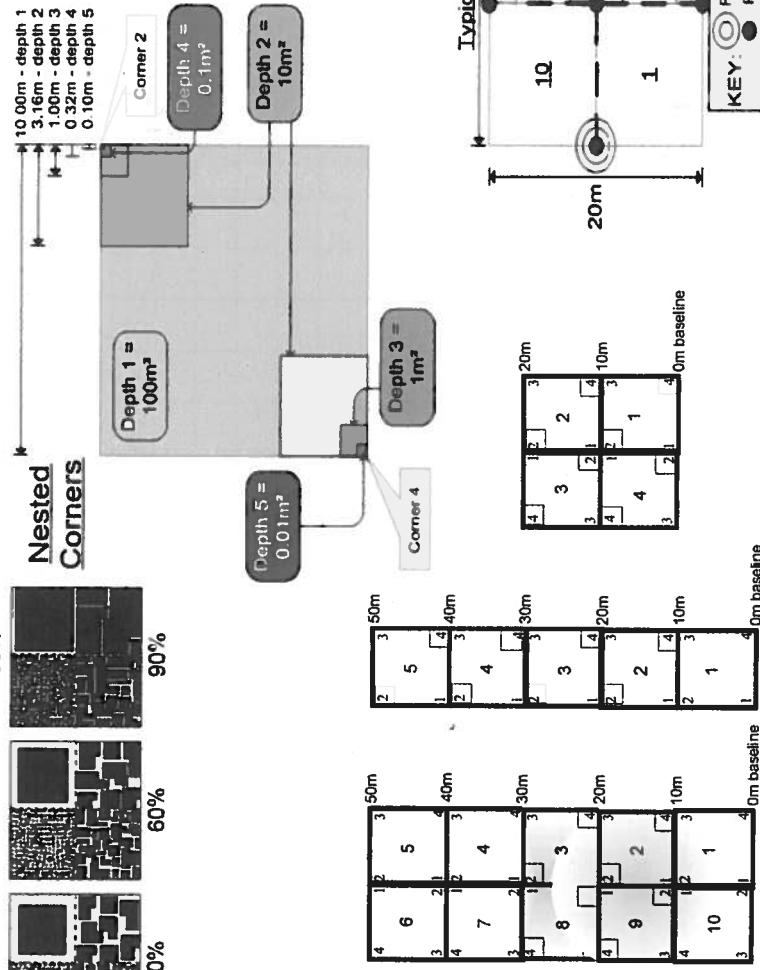
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cover class	% cover	midpoint
1	solitary or few	0.0001
2	0-1%	0.005
3	1-2%	0.015
4	2-5%	0.035
5	5-10%	0.075
6	10-25%	0.175
7	25-50%	0.375
8	50-75%	0.625
9	75-95%	0.850
10	95-100%	0.975



## CLEVELAND METROPARKS Plant Community Assessment Program Natural Woody Stem Data Sheet

Project Label: PCAP

Project Name: OINC 2013

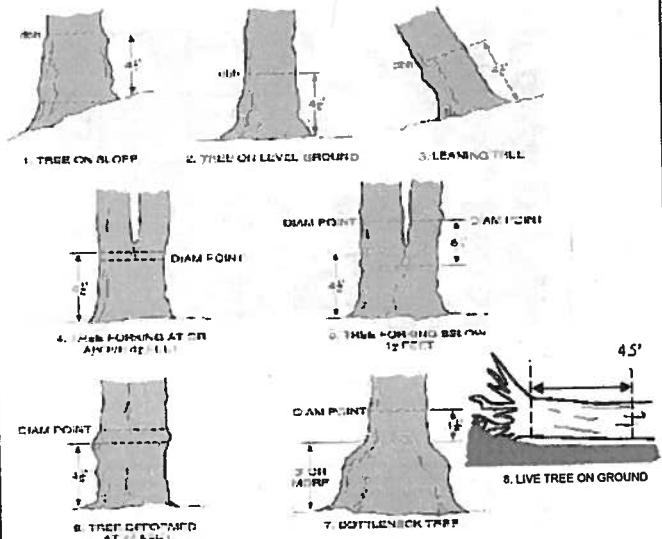
Plot No.: 1369

Page: 1 of 4

Explain subsample (additional room on back):

mod #	species	c voucher#	# stems 0-1.4m browsed	% sub sample	# shrub clumps	size class (cm) woody stems >1.4m										11 >40 (record each tree)
						0-1	1-2.5	2.5-5	5-10	10-15	15-20	20-25	25-30	30-35	35-40	
1	<i>Ulmus americana</i>				1	•										
1	<i>Hamelia virginiana</i>		•													
1	Standing dead															
1	<i>Fagus grandifolia</i>						•									
1	<i>Betula alleghaniensis</i>							•								
1	<i>Acer saccharinum</i>															
1	<i>Liquidambar styraciflua</i>															
1	<i>Euonymus europaeus</i>															
1	<i>Rosa multiflora</i>															
2	<i>Acer saccharinum</i>															
2	<i>Lindera benzoin</i>															
2	<i>Liquidambar tulipifera</i>															
2	<i>Ulmus americana</i>															
3	Standing dead						•	•	•	•	•					
3	<i>Acer saccharinum</i>							•	•	•	•					
3	<i>Fragaria sp.</i>							•	•	•	•					
3	<i>Fraxinus pennsylvanica</i>								•	•	•					
3	<i>Tilia americana</i>									•	•					
3	<i>Ulmus rubra</i>										•					
3	<i>Rosa multiflora</i>		•													
4	Standing dead															
4	<i>Betula thunbergii</i>		•													

#### DBH Measurement Rules



#### Woody Stem Deer Browse

Record the number of stems/plants between 0.5-1.0 meters tall that exhibit evidence of this years deer browse.

Record using the tally system from 1 to 10



1



2



3



4



5

#### ASH CANOPY CONDITION

1. Healthy, full canopy: A healthy ash canopy is normally thinner than many other trees such as maple.
2. Thinning canopy: There aren't as many leaves as there ought to be, but all top branches exposed to sunlight have leaves.
3. Dieback: Canopy is thinning and some top branches exposed to sunlight are dead (have no leaves). Lower branches, not exposed to sunlight, die naturally and are not considered.
4. >50% Dieback: The canopy has less than half of the leaves that should be there and/or half of the top branches are dead.
5. Dead canopy: No leaves remain in the canopy portion of the tree. It still counts as a 5 even if there are epicormic sprouts below the canopy (lowest branch) on the trunk.



A

B

C

D

E

#### ASH CANOPY BREAKUP CONDITION (for dead trees):

(If an ash receives a score of 5 (dead) under canopy condition it must also receive a breakup condition rank as described below)

- All main branches contain fine twigs (newly dead).
- Over 50% of main branches have fine twigs.
- Less than 50% of main branches have fine twigs.
- Stem still standing and tertiary main branches present.
- Central stem still standing.

## CLEVELAND METROPARKS Plant Community Assessment Program Natural Woody Stem Data Sheet

Project Label: PCAP

Project Name: DINC 2013

Plot No.: 1369

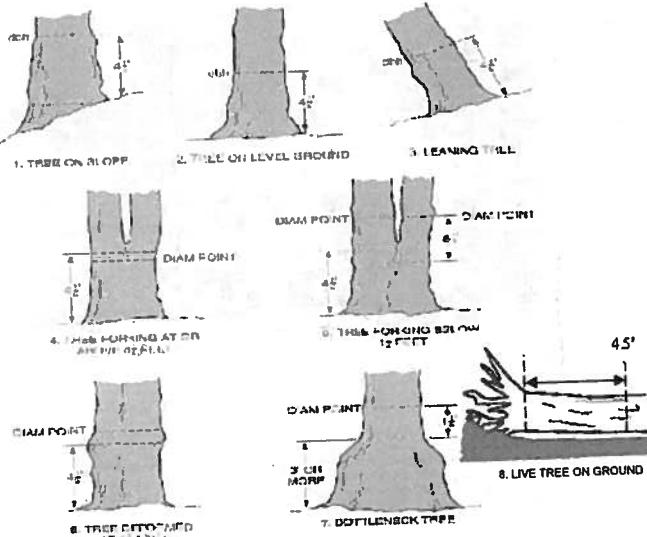
Page: 2 of 4



Explain subsample (additional room on back):

mod #	species	c	voucher#	# stems 0-1.4m browsed	% sub sample	# shrub clumps	size class (cm) woody stems > 1.4m											>40 (record each tree)
							1	2	3	4	5	6	7	8	9	10	11	
4	Acer saccharinum						•	•	•	•	•	•	•	•	•	•	•	69.5
4	Liquidambar styracifolia																	
4	Fagus grandifolia																	
4	Juglans nigra																	
4	Rosa multiflora																	
4	Viburnum dentatum																	
4	Parthenocissus quinquefolia																	
5	Syringa vulgaris																	
5	Acer saccharinum																	
5	Fagus grandifolia																	
5	Rosa multiflora																	
5	Tilia americana																	
5	Parthenocissus quinquefolia																	
5	Berberis thunbergii																	
5	Rubus occidentalis																	
6	Stenodermadendron																	
6	Acer saccharinum																	
6	Fagus grandifolia																	
6	Fraxinus pennsylvanica																	
6	Rosa multiflora																	
7	Fagus grandifolia																	
7	Acer saccharinum																	
7	Stenodermadendron																	
7	Liquidambar styracifolia																	

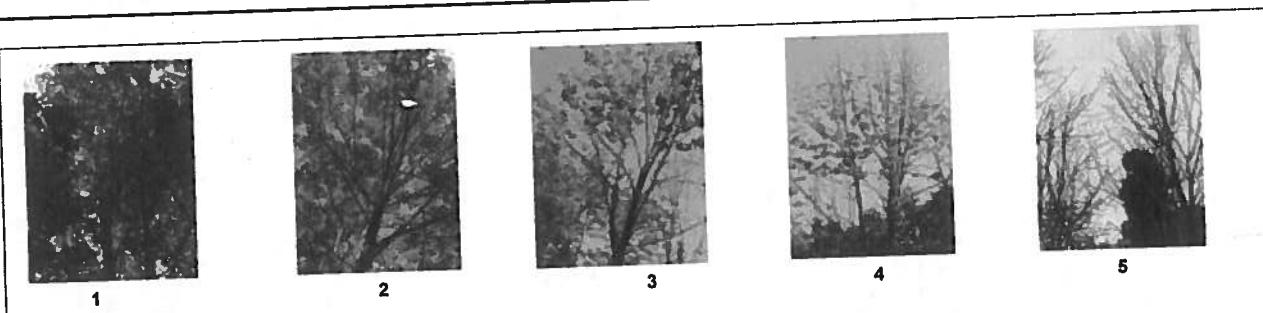
### DBH Measurement Rules



### Woody Stem Deer Browse

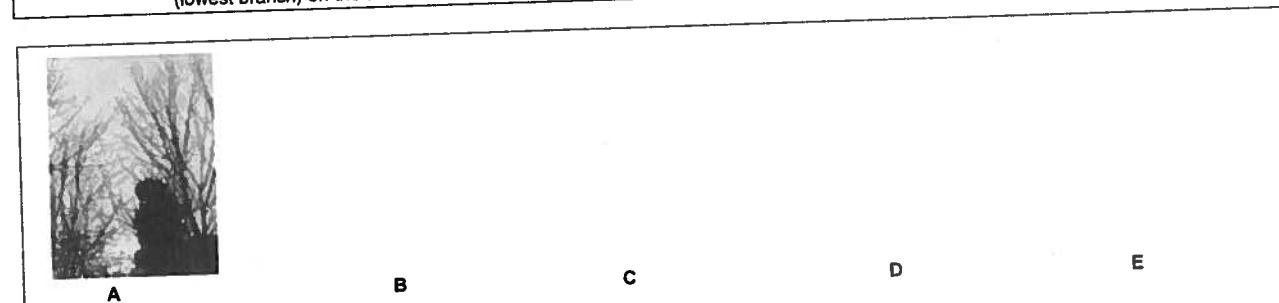
Record the number of stems/plants between 0.5-1.0 meters tall that exhibit evidence of this year's deer browse.

Record using the tally system from 1 to 10



### ASH CANOPY CONDITION

1. Healthy, full canopy: A healthy ash canopy is normally thinner than many other trees such as maple.
2. Thinning canopy: There aren't as many leaves as there ought to be, but all top branches exposed to sunlight have leaves.
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4. >50% Dieback: The canopy has less than half of the leaves that should be there and/or half of the top branches are dead.
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### ASH CANOPY BREAKUP CONDITION (for dead trees):

(If an ash receives a score of 5 (dead) under canopy condition it must also receive a breakup condition rank as described below)

- A: All main branches contain fine twigs (newly dead).
- B: Over 50% of main branches have fine twigs.
- C: Less than 50% of main branches have fine twigs.
- D: Stem still standing and tertiary main branches present.
- E: Central stem still standing.

## CLEVELAND METROPARKS Plant Community Assessment Program Natural Woody Stem Data Sheet

Project Label: PCAP

Project Name: OI NC 2013

Plot No.: 13A

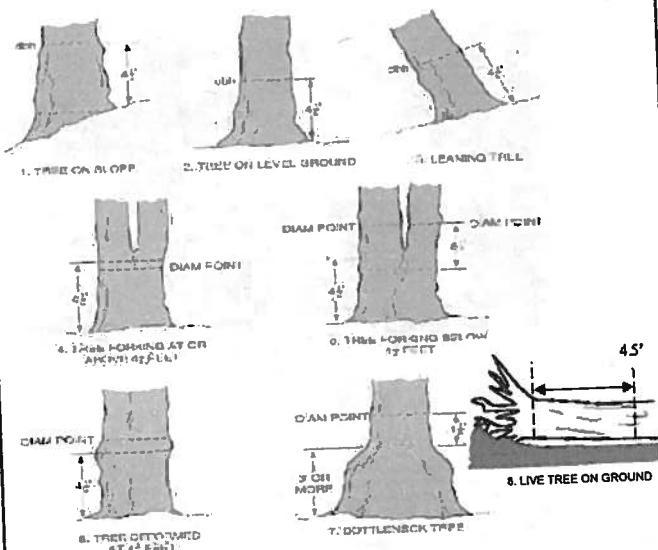
Page: 3 of 4



Explain subsample (additional room on back):

mod #	species	c	voucher#	# stems 0-1.4m browsed	% sub sample	# shrub clumps	size class (cm) woody stems >1.4m											>>10 (record each tree)
							1	2	3	4	5	6	7	8	9	10	11	
7	<i>Parthenocissus quinquefolia</i>																	
7	<i>Euonymus europaeus</i>																	
7	<i>Rubus serotina</i>																	
7	<i>Rosa multiflora</i>																	
8	<i>Rhus typhina</i>																	
8	<i>Rhus typhina</i>																	
8	<i>Acer saccharinum</i>																	
8	<i>Vitis aestivalis</i>																	
8	<i>Liquidambar styraciflua</i>																	
8	<i>Fraxinus pennsylvanica</i>																	
8	<i>Fagus grandifolia</i>																	
8	<i>Rosa multiflora</i>																	
8	Stand dead																	
9	X Acer saccharum																	
9	<i>Fraxinus sp</i>																	
9	Stand dead																	
9	<i>Ulmus americana</i>																	
9	<i>Lindera benzoin</i>																	
9	<i>Pachysandra terminalis</i>																	
9	<i>Rosa multiflora</i>																	
9	<i>Fagus grandifolia</i>																	
10	<i>Acer saccharinum</i>																	
10	<i>Rachicentrus americanum</i>																	
10	Standing dead																	
10	<i>Rubus hispida</i>																	

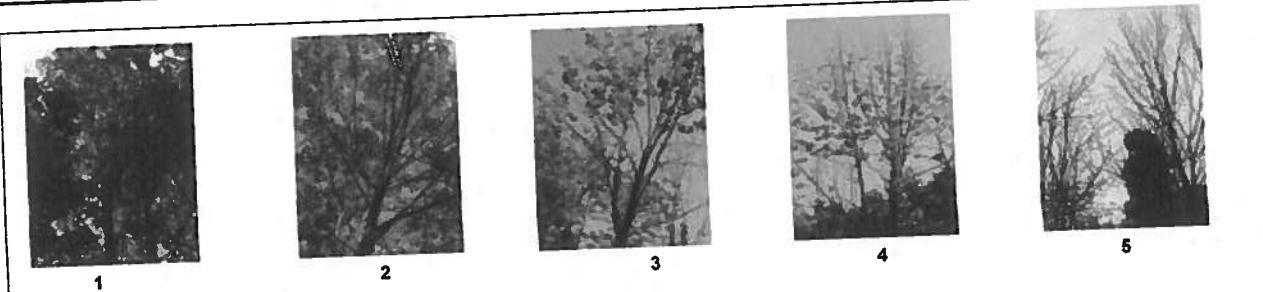
#### DBH Measurement Rules



#### Woody Stem Deer Browse

Record the number of stems/plants between 0.5-1.0 meters tall that exhibit evidence of this years deer browse.

Record using the tally system from 1 to 10



#### ASH CANOPY CONDITION

1. Healthy, full canopy: A healthy ash canopy is normally thinner than many other trees such as maple.
2. Thinning canopy: There aren't as many leaves as there ought to be, but all top branches exposed to sunlight have leaves.
3. Dieback: Canopy is thinning and some top branches exposed to sunlight are dead (have no leaves). Lower branches, not exposed to sunlight, die naturally and are not considered.
4. >50% Dieback: The canopy has less than half of the leaves that should be there and/or half of the top branches are dead.
5. Dead canopy: No leaves remain in the canopy portion of the tree. It still counts as a 5 even if there are epicormic sprouts below the canopy (lowest branch) on the trunk.



A

B

C

D

E

**ASH CANOPY BREAKUP CONDITION (for dead trees):**  
(If an ash receives a score of 5 (dead) under canopy condition it must also receive a breakup condition rank as described below)

- A: All main branches contain fine twigs (newly dead).
- B: Over 50% of main branches have fine twigs.
- C: Less than 50% of main branches have fine twigs.
- D: Stem still standing and tertiary main branches present.
- E: Central stem still standing.

CLEVELAND METROPARKS Plant Community Assessment Program Natural Woods Survey

Project Label: PCAP

Project Name: CHAS 2013 Plot No.:

Explain subsample (additional room on back):

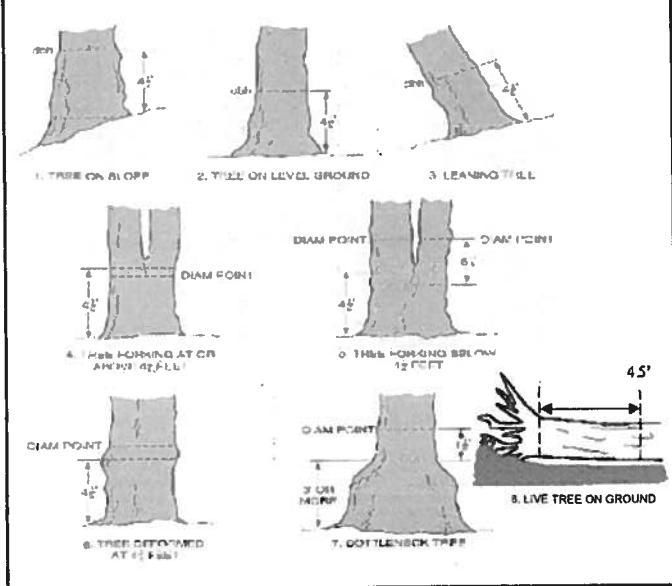
01 NC 2013

190

Page: 4 of

 Ciemajam Metroparks

#### DBH Measurement Rules



#### Woody Stem Deer Browse

Record the number of stems/plants between 0.5-1.0 meters tall that exhibit evidence of this years deer browse.

Record using the tally system from 1 to 10



1



2



3



4



5

#### ASH CANOPY CONDITION

1. **Healthy, full canopy:** A healthy ash canopy is normally thinner than many other trees such as maple.
2. **Thinning canopy:** There aren't as many leaves as there ought to be, but all top branches exposed to sunlight have leaves.
3. **Dieback:** Canopy is thinning and some top branches exposed to sunlight are dead (have no leaves). Lower branches, not exposed to sunlight, die naturally and are not considered.
4. **>50% Dieback:** The canopy has less than half of the leaves that should be there and/or half of the top branches are dead.
5. **Dead canopy:** No leaves remain in the canopy portion of the tree. It still counts as a 5 even if there are epicormic sprouts below the canopy (lowest branch) on the trunk.



A

B

C

D

E

#### ASH CANOPY BREAKUP CONDITION (for dead trees):

(If an ash receives a score of 5 (dead) under canopy condition it must also receive a breakup condition rank as described below)

- A: All main branches contain fine twigs (newly dead).
- B: Over 50% of main branches have fine twigs.
- C: Less than 50% of main branches have fine twigs.
- D: Stem still standing and tertiary main branches present.
- E: Central stem still standing.

## CLEVELAND METROPARKS Emerald Ash Borer - Fraxinus Sheet

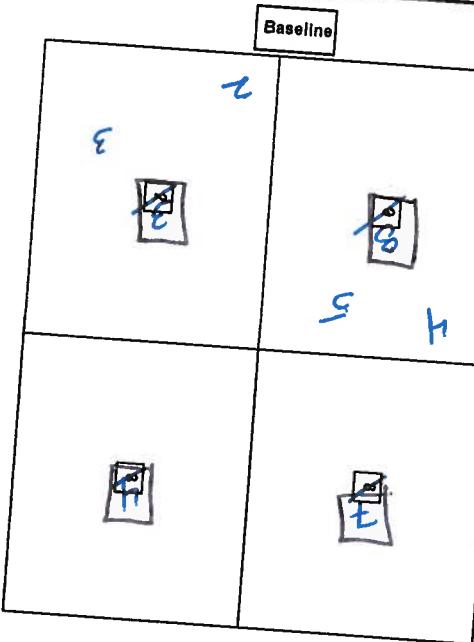
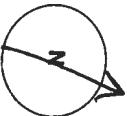
Project Label: PCAP

Project Name: OINC2013

INTENSIVE MODULES ONLY  
Plot No.: 13C9  
Date: 9/12/13  
TREES ≥ 10CM ONLYPage: 1 of 2  
© 2013 CLEVELAND METROPARKS

Module	Tree ID.	Species	Dead c.	Voucher #	DBH (cm)	Ht @ DBH condition	Ash condition	Dead holes	# Exit holes present	Epicormic	Woodpecker holes	ASH Only
3	1				84	11.9	1	5	5			
3	2	Fraxinus sp.			108	10.8	2	0	0	0	0	
3	3	Fraxinus sp.			118	11.8	2	0	0	0	0	
4	4	Fraxinus sp.			125	12.5	1	0	0	0	0	
5	5	Fraxinus sp.										
6	6											
7	7											
8	8											
9	9											
10	10											
11	11											
12	12											
13	13											
14	14											
15	15											
16	16											
17	17											
18	18											
19	19											
20	20											
21	21											
22	22											
23	23											
24	24											
25	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 1.25in<sup>2</sup> x ≥1.5in

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: ©IN C 2013

Plot No.: 1369

© Cleveland Metroparks  
Page: 1 of 1

STANDING BIOMASS (Required for emergent wetlands) collected in 0.1m clip plots (3x3.2 cm) from corners 1 and 3 in each intensive module. Required for VIBI-E score calculation. C' check when collected

Module # C7 Corner Corner

--	--	--	--	--	--	--	--

**CLASSIFICATION**

FIT = excellent & Fit and Confidence

**Hydrogeomorphic class (WETLANDS ONLY):**

- DEPRESSION
- IMPOUNDMENT  Beaver  Human
- RIVERINE  Headwater  Marshland  Channel
- SLOPE (ground water hydrology or on a physical slope)
- FRINGING  Reservoir  Natural Lake
- COASTAL (specific subclass)
- BOG (strongly, moderately, weakly, umbrotophobic)
- FOREST  swamp forest  bog forest  forest steep
- EMERGENT  marsh  wet meadow  open bog
- SHRUB  shrub swamp  tall sh. bog  tall sh. fen

**MICROTOPOGRAPHIC FEATURE COUNTS - Intensive modules only**

Ranks for microhabitat features. Select one or select two and average the score. NOTE: If mod fails on a slope automatically gets ranked based on steepleness (1-3) to begin + any features present

Slope 2 = fails on slope >20°

Slope 3 = maximum steepness that can be safely sampled ~45°

- 1 feature is absent or functionally absent from the wetland  
2 feature is present in the wetland in very small amounts or if more common, of low quality  
3 feature is present in moderate amounts, but not of highest quality, or in small amounts of highest quality  
4 feature is present in moderate or greater amounts and of highest quality

MCNAB INDICES (degrees) + for up - for down			
		LFI*	TSI**
	A1 aspect	N	
			LFI is angle of plot to the horizon. TSI is angle formed by local slopes. For TSI measure angle from eye of person standing ~10 m away.
	+45 degrees	NE	
	+90 degrees	E	
	+135 degrees	SE	
	+180 degrees	S	
	+225 degrees	SW	
	+270 degrees	W	
	+315 degrees	NW	

\* Landform Index (position within landscape)  
\*\* Terrain Shape Index (site microtopographic shape)

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

Module	N	S	E	W
3	18	17	16	17
4	10	8	6	7
7	10	16	13	22
8	16	20	16	13

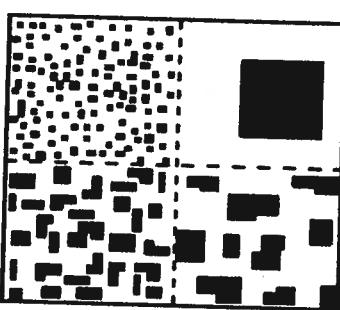
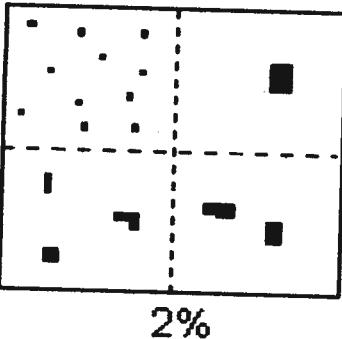
Module #	corner	C.W.D. - count for pieces with minimum 1m length						
		no. of tufts	no. of hummocks	no macro. depressions	c.w.d. (2-12 cm)	c.w.d. (12-40cm)	>40 cm interspers.	microhab. microhab.
3	O	O	O	2	17	5	0	1
4	O	O	O	2	22	2	0	2
7	O	O	O	1	16	5	3	1
8	O	O	O	1	16	5	2	4

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



### PERCENT MOTTLES (USE CLASS CODES):

Class	Code Conv.	Code NASIS	Criteria: % of Surface Area Covered
Few	f	#	< 2
Common	c	#	2 to < 20
Many	m	#	≥ 20



**SOIL TEXTURE:** Record the code for the soil texture of the 5 cm and 20 cm layers. To estimate texture, collect a soil sample from the appropriate layer and moisten it with water to the consistency of modeling clay/wet newspaper; the sample should be wet enough that all of the particles are saturated but excess water does not freely flow from the sample when squeezed. Attempt to roll the sample into a ball. If the soil will not stay in a ball and has a grainy texture, the texture is either sandy or coarse sandy. If the soil does form a ball, squeeze the sample between your fingers and attempt to form a self-supporting ribbon. Samples which form both a ball and a ribbon should be coded as clayey; samples which form a ball but not a ribbon should be coded as loamy.

0= Organic

1= Loamy

2= Clayey

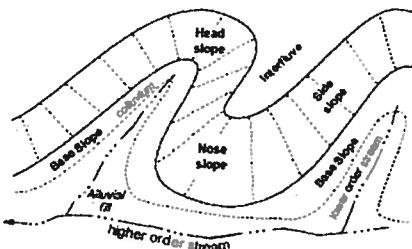
3= Sandy

4= Coarse Sand

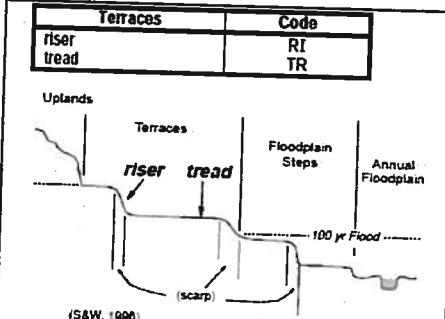
9= Not measured - make plot note

**Geomorphic Component - Three-dimensional descriptors of parts of landforms or microfeatures that are best applied to areas. Unique descriptors are available for Hills, Terraces, Mountains, and Flat Plains; e.g., (for Hills) nose slope or NS.**

Hills	Code PDP	Code NASIS
Interfluve	IF	IF
head slope	HS	HS
nose slope	NS	NS
side slope	SS	SS
base slope	---	BS

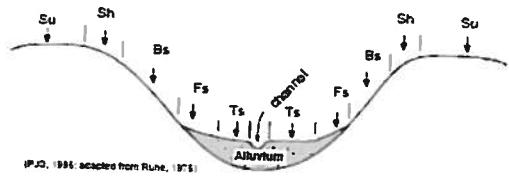


(PJS, 1990; adapted from Riche, 1975)



**Hillslope - Profile Position (Hillslope Position in PDP) - Two-dimensional descriptors of parts of line segments (i.e., slope position) along a transect that runs up and down the slope; e.g., backslope or BS. This is best applied to transects or points, not areas.**

Position	Code
summit	SU
shoulder	SH
backslope	BS
footslope	FS
toeslope	TS



**HYDROLOGIC REGIME** Modified from Grossman et al 1998. (Frequency and duration of flooding.)

**UPLAND:** Not a wetland. Very rarely flooded.

**INTERMITTENTLY/SEASONALLY SATURATED:** Dry at least once per year. Surface water is seldom present, but substrate is saturated to surface for extended periods during the growing season.

**PERMANENTLY/SEMI-PERMANENTLY SATURATED:** Dry less than once per year. Surface water is seldom present, but substrate is saturated to surface for extended periods during the growing season. Equivalent to Cowardin's Saturated modifier.

**OCCASIONALLY FLOODED:** Surface water can be present for brief periods during growing season, but not in most years. Often characterizes flood-plain upper terraces.

**TEMPORARILY FLOODED:** Surface water present for brief periods during growing season, but water table usually lies well below soil surface. Often characterizes flood-plain levees and lower terraces. Equivalent to Cowardin's Temporary modifier.

**INTERMITTENTLY FLOODED :** Substrate is usually exposed, but surface water can be present for variable periods without detectable seasonal periodicity. Inundation is not predictable to a given season and is dependent upon highly localized rain storms. This modifier was developed for use in the arid West for water regimes of Playa lakes, intermittent streams, and dry washes but can be used in other parts of the U.S. where appropriate. This modifier can be applied to both wetland and non-wetland situations. Equivalent to Cowardin's Intermittently Flooded modifier.

**SEMI-PERMANENTLY FLOODED (exposed <1/year):** Surface water persists throughout the growing season in most years. Land surface is normally saturated when water level drops below soil surface. Includes Cowardin's Intermittently Exposed and Semipermanently Flooded modifiers.

**PERMANENTLY FLOODED:** Water covers the land surface at all times of the year in all years. Equivalent to Cowardin's "permanently flooded".

**UNKNOWN:** The hydrologic regime cannot be determined from the available information.





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

<b>Soil pit module # 3</b> (one per entire plot)	
5 cm	matrix color <u>10YR 4/2</u> moist color <u>10YR</u>
%mineral	<u>D</u>
oxid roots	<u>N</u>
texture*	<u>1</u>
redox features**	<u>D</u>
hydr. cond. ***	<u>I S M D</u>
20 cm	matrix color <u>2.5Y 5/2</u> moist color <u>D</u>
%mineral	<u>RC</u>
oxid roots	<u>Y</u>
texture*	<u>1</u>
redox features**	<u>Y</u>
hydr. cond. ***	<u>I S M D</u>

**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

<b>Soil Collection Module</b> Horizon (A, B, C)	
2-3-8,9 composted	A
Web Soil Survey Information:	
Soil Series/Type: FA - Fitchville silt loam	
Soil Series Source: Ohio Soil Survey	
Landform type: Terrace, 14 K2 bluns	
Depth to rest Layer: more than 10 in	<u>10 CM</u>
Parent Material: Glacial tillitic drift deposits	
<b>DRAINAGE*</b>	
Excessively dr.	<input type="checkbox"/>
Well drained	<input type="checkbox"/>
Somewhat poorly dr.	<input type="checkbox"/>
Very poorly dr.	<input type="checkbox"/>
<b>Impenetrable surface</b>	

CL 8-16-13

\* refer to texture classes on reverse side

\*\* e.g. hydrogen sulfide odor, gleying, etc.

\*\*\* Circle one:

1=undrained S=saturated M-minist D-dry

Notes: (include evidence of earthworms (worms, castings, middens))

SOIL DEPTH MEASUREMENT: Measure to the nearest 0.1 cm in center of intensive modules. If >30.5 cm, record as -30			
1 litter+	organic depth (cm)	2 litter depth (cm)	water depth (cm)
mod#			depth sat (cm)
3	0.2	0	>30
4	1.3	0	>30
7	2.3	0	>30
8	0.3	0	>30

Only 1 WDM present  
white dining soil pit  
no casting or  
midden

COVER BY STRATA estimate using midpoints of 5x3, 8, 13 %		
<b>STAND SIZE</b>		
Strata	height range (m)	Total Cover (%)
Tree	>5	38
Shrub	0.5 - 5	43
Herb	≤ 0.5	6
(Floating)* (Aquatic)*	N/A	-

<input type="checkbox"/> >500 x plot size
<input type="checkbox"/> > 100 x plot size
<input checked="" type="checkbox"/> 1-100 x plot size
<input type="checkbox"/> 3-10 x plot size
<input type="checkbox"/> 1-3 x plot size
<input type="checkbox"/> < plot size

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



CLEVELAND METROPARKS Plant Community Assessment Program: Invasive Species Survey



Tier 1: Early detection/ Rapid response

		Presence				GPS
		NE	SE	SW	NW	
<i>Microstegium vimineum</i>	Japanese stiltgrass					
<i>Ranunculus ficaria</i>	Lesser Celandine					
<i>Cynanchum louiseae</i> (vine)	Black Swallow-wort					
<i>Butomus umbellatus</i> (wetland)	Flowering Rush					
<i>Heracleum mantegazzianum</i>	Giant Hogweed					

Presence  
X: yes

Tier 2: Assess as Needed

		# of Plants				comments
		NE	SE	SW	NW	
<i>Acer platanoides</i>	Norway Maple					
<i>Ailanthus altissima</i>	Tree of Heaven					
<i>Lonicera japonica</i> (vine)	Japanese Honeysuckle					
<i>Lythrum salicaria</i> (wetland)	Purple Loosestrife	2				
<i>Aegopodium podagraria</i> (G-cover)	Bishop's Goutweed					
<i>Celastrus orbiculatus</i> (vine)	Asian Bittersweet					
<i>Torilis sp.</i>	Hedgeparsley					
<i>Conium maculatum</i>	Poison Hemlock					
<i>Rhamnus cathartica</i>	Common Buckthorn (shrub)			1		
<i>Berberis thunbergii</i>	Japanese Barberry (shrub)	3	2			
<i>Alnus glutinosa</i>	European Alder					
<i>Dipsacus laciniatus</i>	Cut-leaf Teasel					
<i>Elaeagnus umbellata</i>	Autumn Olive (shrub)					
<i>Lonicera maackii</i>	Amur Honeysuckle (shrub)	1				
<i>Euonymus fortunei</i>	Wintercreeper					

# of Plants  
1: 1-10  
2: 11-50.  
3: 51-100  
4: 101-1,000  
5: >1,000

Tier 3: Presence is of Interest

		# of Plants				comments
		NE	SE	SW	NW	
<i>Convallaria majalis</i> (G-cover)	Lily of the Valley					
<i>Coronilla varia</i> (G-cover)	Crown Vetch					
<i>Eleutherococcus pentaphyllus</i>	Five-leaf Aralia (shrub)					
<i>Pachysandra terminalis</i> (G-cover)	Japanese Pachysandra					
<i>Philadelphus coronarius</i>	Mock Orange (shrub)					
<i>Pulmonaria officinalis</i> (G-cover)	Lungwort					
<i>Rubus phoenicolasius</i>	Wineberry					
<i>Iris pseudacorus</i> (wetland)	Yellow Flag Iris					
<i>Ornithogalum umbellatum</i>	Star of Bethlehem					
<i>Viburnum opulus</i> var. <i>opus</i>	European Cranberry (shrub)					
<i>Viburnum plicatum</i>	Doublefile Viburnum (shrub)					

# of Plants  
1: 1-10  
2: 11-50.  
3: 51-100  
4: 101-1,000  
5: >1,000

Tier 4: Widespread and abundant

		Presence				comments
		NE	SE	SW	NW	
<i>Alliaria petiolata</i>	Garlic Mustard	1		1		
<i>Ligustrum vulgare</i>	Common Privet (shrub)	1	1	1	2	
<i>L. morrowii</i> , <i>L. tatarica</i>	Bush Honeysuckles (shrub)	1				
<i>Phalaris arundinacea</i>	Reed Canarygrass					
<i>Phragmites australis</i> (wetland)	Phragmites					
<i>Polygonum cuspidatum</i>	Japanese Knotweed					
<i>Frangula alnus</i>	Glossy Buckthorn (shrub)					
<i>Rosa multiflora</i>	Multiflora Rose (shrub)	4	2	1	2	
<i>Typha angustifolia</i> , <i>T. x glauca</i>	Cattails (wetland)	1				
<i>Cirsium arvense</i>	Canada thistle					
<i>Dipsacus fullonum</i>	Common Teasel					
<i>Hesperis matronalis</i>	Dame's Rocket					
<i>Vinca minor</i> (G-cover)	Periwinkle					

# of Plants  
1: 1-10  
2: 11-50.  
3: 51-100  
4: 101-1,000  
5: >1,000

Note: For Ground-cover plants record "stem #" but in comment field describe # of colonies and patch size (S,M, L)

4bCM PCAP Invasive species datasheet.xls last revised 6/11/2012 ceh

Natural Resources



## FORM B-1: BUFFER SAMPLE PLOTS (Front)

Reviewed by (Initial): \_\_\_\_\_

Site ID: RCAP NC 1369DATE: 08/12/2013

Location:

 AA Center     ON     OS     OE     OW

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: <input checked="" type="radio"/> D <input type="radio"/> E		Absent: <input type="radio"/>	Buffer Plot 2	Canopy Type: <input type="radio"/> D <input checked="" type="radio"/> E		Absent: <input type="radio"/>	Buffer Plot 3	Canopy Type: <input type="radio"/> D <input checked="" type="radio"/> E		Absent: <input type="radio"/>
	Leaf Type: <input type="radio"/> B <input checked="" type="radio"/> N	Flag: <input type="radio"/>			Leaf Type: <input type="radio"/> B <input checked="" type="radio"/> N	Flag: <input type="radio"/>			Leaf Type: <input type="radio"/> B <input checked="" type="radio"/> N	Flag: <input type="radio"/>	
Big Trees (>0.3m DBH)	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
Small Trees (<0.3m DBH)	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
Woody Shrubs, Saplings (0.5m-5m HIGH)	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
Woody Shrubs, Saplings (<0.5m HIGH)	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
Herbs, Forbs and Grasses	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
Bare ground	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
Litter, duff	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
Rock	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
Water	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
Submerged Vegetation	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>

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				Flag
Fill bubble if present - Plot	1	2	3	Fill bubble if present - Plot	1	2	3	Fill bubble if present - Plot	1	2	3	Flag
Road - gravel	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Ditches, Channelization	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Pasture/Hay	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	
Road - two lane	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Dike/Dam/Road/RR Bed (IMPEDE FLOW)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Range	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	
Road - four lane	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Water Level Control Structure	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Row Crops	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	
Parking Lot/Pavement	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Excavation, Dredging	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Fallow Field (RECENT RESTING ROW CROP FIELD)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	
Golf Course	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Fill/Spill Banks	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Fallow Field (OLD GRASS, SHRUBS, TREES)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	
Lawn/Park	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Freshly Deposited Sediment (UNVEGETATED)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Nursery	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	
Suburban Residential	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Soil Loss/Root Exposure	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Dairy	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	
Urban/Multi-family	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Wall/Riprap	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Orchard	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	
Landfill	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Inlets, Outlets	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Confined Animal Feeding	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	
Dumping	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Point Source/Pipe (EFFLUENT OR STORMWATER)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Rural Residential	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	
Trash	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Impervious surface input (SHEETFLOW)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Gravel Pit	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	
Other: _____	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Other: _____	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Irrigation	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	
Other: _____	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Other: _____	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Other: _____	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	

Industrial Development Stressors				Habitat/Vegetation Stressors								Flag
Fill bubble if present - Plot	1	2	3	Fill bubble if present - Plot	1	2	3	Fill bubble if present - Plot	1	2	3	Flag
Oil Drilling	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Forest Clear Cut	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Herbicide Use	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	
Gas Wells	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Forest Selective Cut	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Mowing/Shrub Cutting	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	
Mine (surface)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Tree Plantation	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Trails	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	
Mine (underground)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Tree Canopy Herbivory (INSECT)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Soil Compaction (ANIMAL OR HUMAN)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	
Military	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Shrub Layer browsed (WILD OR DOMESTIC)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Offroad vehicle damage	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	
Other: _____	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Highly Grazed Grasses (OVERALL <3' HIGH)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Soil erosion (FROM WIND, WATER, OR OVERUSE)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	
Other: _____	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Recently Burned Forest Canopy	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Other: _____	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	
Other: _____	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Recently Burned Grassland (BLACKENED)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Other: _____	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	

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

Buffer Sample Plots 05/27/2011

**FORM B-1: BUFFER SAMPLE PLOTS - TARGETED ALIEN SPECIES (Back)**

Reviewed by (Initials):

Site ID: PCK8NC1369

DATE: 08/12/2013

● Confirm a filled data bubble indicates presence and an unfilled bubble indicates absence by filling in this bubble

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
Eurasian Watermilfoil	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Purple Loosstrife	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Johnson Grass	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Water hyacinth	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Knotweed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Kudzu	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Yellow Floating Heart	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Japanese Knotweed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Multiflora Rose	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Giant Salvinia	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Perennial Pepperweed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Common Buckthorn	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Garlic Mustard	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Giant Reed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Himalayan Blackberry	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Polson Hemlock	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Cheatgrass	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Tamarisk	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Mile-A-Minute Weed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Reed Canary Grass	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Other:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Birdsfoot Trefoil	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Common Reed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Other:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Canada Thistle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Leafy Spurge	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Other:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
										Other:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

## PLOT COORDINATES

Provide GPS coordinates at the center of the Buffer Plot (#3) at the far end of each Buffer Transect and for the Buffer Plot at the AA CENTER. Indicate the location of the plot coordinates by filling in the appropriate bubble.

If Buffer Plot 3 can not be accessed, take the coordinates at the nearest practicable location ALONG THE TRANSECT. This is important because all Buffer Plots are centered on the Buffer Transects and the coordinates will indicate the location of the transect. Fill in the "nearest practicable location" bubble, fill in the flag box, and describe where the coordinates were taken and why in the comment section below. The coordinates of the nearest practicable location can be either placed as close to the center of Plot 3 as possible or at the center of the last accessible Buffer Plot.

**Location of coordinates (choose one):**

## Flag

AA CENTER     N3     S3     E3     W3     Nearest practicable location (flag and comment below)

Latitude North 41° 57' 34" Longitude West 081° 42' 39"

**Use Decimal Degrees: NAD83**

Buffer Sample Points - Targeted Alien Species

7966623548

# FORM B-1: BUFFER SAMPLE PLOTS (Front)

Reviewed by (Initial): \_\_\_\_\_

Site ID:

PCAP NC 1369

DATE: 08 / 12 / 2013

Location:

○ AA Center

○ N ○ S ○ E ○ W

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

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

**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	Fill bubble if present - Plot	1	2	3	Flag	Fill bubble if present - Plot	1	2	3	Flag
Road - gravel	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Ditches, Channelization	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Pasture/Hay	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Road - two lane	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Dike/Dam/Road/RR Bed (IMPEDE FLOW)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Range	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Road - four lane	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Water Level Control Structure	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Row Crops	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Parking Lot/Pavement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Excavation, Dredging	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Fallow Field (RECENT RESTING ROW CROP FIELD)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Golf Course	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Fill/Spill Banks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Fallow Field (OLD - GRASS, SHRUBS, TREES)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Lawn/Park	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Freshly Deposited Sediment (UNVEGETATED)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Nursery	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Suburban Residential	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Soil Loss/Root Exposure	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		Dairy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Urban/Multifamily	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Wall/Riprap	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Orchard	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Landfill	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Inlets, Outlets	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Confined Animal Feeding	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Dumping	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Point Source/Pipe (EFFLUENT OR STORMWATER)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Rural Residential	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Trash	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Impervious surface input (SHEETFLOW)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Gravel Pit	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Other:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Other:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Irrigation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Other:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Other:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Other:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	

## Industrial Development 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	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Forest Clear Cut	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Herbicide Use	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Gas Wells	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Forest Selective Cut	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Mowing/Shrub Cutting	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Mine (surface)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Tree Plantation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Trails	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Mine (underground)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Tree Canopy Herbivory (INSECT)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Soil Compaction (ANIMAL OR HUMAN)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Military	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Shrub Layer Browsed (WILD OR DOMESTIC)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		Offroad vehicle damage	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Other:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Highly Grazed Grasses (OVERALL <3 HIGH)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Soil erosion (FROM WIND, WATER OR OVERUSE)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Other:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Recently Burned Forest Canopy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Other:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Other:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Recently Burned Grassland (BLACKENED)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Other:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	

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.

Buffer Sample Plots 05/27/2011

2428168304

rosa, berberis, japonica, privet, morowari, mcf.;

FORM B-1: BUFFER SAMPLE PLOTS - TARGETED ALIEN SPECIES (Back)

Reviewed by (Initials): \_\_\_\_\_

**Site ID:** PCAP NC 1369

DATE: 08/12/2013

● Confirm a filled data bubble indicates presence and an unfilled bubble indicates absence by filling in this bubble

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
Eurasian Watermilfoil	○	○	○		Purple Loosestrife	○	○	○		Johnson Grass	○	○	○	
Water hyacinth	○	○	○		Knotweed	○	○	○		Kudzu	○	○	○	
Yellow Floating Heart	○	○	○		Japanese Knotweed	○	○	○		Multiflora Rose	○	●	●	
Giant Salvinia	○	○	○		Perennial Pepperweed	○	○	○		Common Buckthorn	○	○	○	
Garlic Mustard	○	○	○		Giant Reed	○	○	○		Himalayan Blackberry	○	○	○	
Polson Hemlock	○	○	○		Cheatgrass	○	○	○		Tamarisk	○	○	○	
Mile-A-Minute Weed	○	○	○		Reed Canary Grass	○	○	○		Other:	○	○	○	
Birdsfoot Trefoil	○	○	○		Common Reed	○	○	○		Other:	○	○	○	
Canada Thistle	○	○	○		Leafy Spurge	○	○	○		Other:	○	○	○	
										Other:	○	○	○	

## **PLOT COORDINATES**

Provide GPS coordinates at the center of the Buffer Plot (#3) at the far end of each Buffer Transect and for the Buffer Plot at the AA CENTER. Indicate the location of the plot coordinates by filling in the appropriate bubble.

If Buffer Plot 3 can not be accessed, take the coordinates at the nearest practicable location ALONG THE TRANSECT. This is important because all Buffer Plots are centered on the Buffer Transects and the coordinates will indicate the location of the transect. Fill in the "nearest practicable location" bubble, fill in the flag box, and describe where the coordinates were taken and why in the comment section below. The coordinates of the nearest practicable location can be either placed as close to the center of Plot 3 as possible or at the center of the last accessible Buffer Plot.

**Location of coordinates (choose one):**

AA CENTER     N3     S3     E3     W3     Nearest practicable location (flag and comment below)

Flag

Latitude North 41 57.251      Longitude West 081 42.416

**Use Decimal Degrees; NAD83**

7966623548

# FORM B-1: BUFFER SAMPLE PLOTS (Front)

Reviewed by (Initial): \_\_\_\_\_

Site ID:

PCAPNC 1369

DATE: 08 / 12 / 2013

Location:

○ AA Center   ○ N   ○ S   ○ E   ○ W

Fill in bubble(s) if plot(s) could not be sampled and flag →

○ Plot 1   ○ Plot 2   ○ Plot 3

## Buffer Natural Cover Strata

Fill in bubbles for all that apply: Canopy Type: D = Deciduous; E = Evergreen. Leaf Type: B = Broadleaf; N = Needle Leaf. Absent: No tree canopy.

Strata Section: Fill in appropriate cover class bubble for each strata type for each plot. 0 = Absent; 1 = Sparse(<10%); 2=Moderate(10-40%); 3 = Heavy (40-75%); 4 = Very Heavy (>75%)

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

**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	Fill bubble if present - Plot	1	2	3	Flag	Fill bubble if present - Plot	1	2	3	Flag
Road - gravel	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Ditches, Channelization	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Pasture/Hay	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Road - two lane	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Dike/Dam/Road/RR Bed (IMPEDE FLOW)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Range	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Road - four lane	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Water Level Control Structure	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Row Crops	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Parking Lot/Pavement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Excavation, Dredging	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Fallow Field (RECENT RESTING ROWCROP FIELD)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Golf Course	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Fill/Spill Banks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Fallow Field (OLD - GRASS, SHRUBS, TREES)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Lawn/Park	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Freshly Deposited Sediment (UNVEGETATED)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Nursery	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Suburban Residential	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Soil Loss/Root Exposure	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Dairy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Urban/Multifamily	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Wall/Riprap	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Orchard	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Landfill	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Inlets, Outlets	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Confined Animal Feeding	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Dumping	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Point Source/Pipe (EFFLUENT OR STORMWATER)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Rural Residential	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Trash	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Impervious surface input (SHEETFLOW)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Gravel Pit	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Other:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Other:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Irrigation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Other:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Other:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Other:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	

### Industrial Development 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	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Forest Clear Cut	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Herbicide Use	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Gas Wells	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Forest Selective Cut	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Mowing/Shrub Cutting	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Mine (surface)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Tree Plantation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Trails	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Mine (underground)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Tree Canopy Herbivory (INSECT)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Soil Compaction (ANIMAL OR HUMAN)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Military	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Shrub Layer Browsed (WILD OR DOMESTIC)	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>		Offroad vehicle damage	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Other:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Highly Grazed Grasses (OVERALL <3' HIGH)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Soil erosion (FROM WIND, WATER, OR OVERUSE)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Other:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Recently Burned Forest Canopy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Other:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Other:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Recently Burned Grassland (BLACKENED)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Other:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	

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.

Buffer Sample Plots 05/27/2011

2428168304

NSP, privet, Deberis,

**FORM B-1: BUFFER SAMPLE PLOTS - TARGETED ALIEN SPECIES (Back)**

**Reviewed by (Initials):** \_\_\_\_\_

Site ID: PCAP NC 1369

DATE: 08/12/2013

● Confirm a filled data bubble indicates presence and an unfilled bubble indicates absence by filling in this bubble

FIII bubble If present - Plot	1	2	3	Flag	FIII bubble If present - Plot	1	2	3	Flag	FIII bubble If present - Plot	1	2	3	Flag
Eurasian Watermilfoil	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Purple Loosestrife	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Johnson Grass	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Water hyacinth	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Knotweed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Kudzu	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Yellow Floating Heart	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Japanese Knotweed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Multiflora Rose	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Giant Salvinia	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Perennial Pepperweed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Common Buckthorn	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Garlic Mustard	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Giant Reed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Himalayan Blackberry	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Poison Hemlock	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Cheatgrass	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Tamarisk	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Mile-A-Minute Weed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Reed Canary Grass	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Other:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Birdsfoot Trefoil	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Common Reed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Other:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Canada Thistle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Leafy Spurge	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Other:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
										Other:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

## PLOT COORDINATES

Provide GPS coordinates at the center of the Buffer Plot (#3) at the far end of each Buffer Transect and for the Buffer Plot at the AA CENTER. Indicate the location of the plot coordinates by filling in the appropriate bubble.

If Buffer Plot 3 can not be accessed, take the coordinates at the nearest practicable location ALONG THE TRANSECT. This is important because all Buffer Plots are centered on the Buffer Transects and the coordinates will indicate the location of the transect. Fill in the "nearest practicable location" bubble, fill in the flag box, and describe where the coordinates were taken and why in the comment section below. The coordinates of the nearest practicable location can be either placed as close to the center of Plot 3 as possible or at the center of the last accessible Buffer Plot.

**Location of coordinates (choose one):**

AA CENTER     N3     S3     E3     W3     Nearest practicable location (flag and comment below)

## Flag

Latitude North 41 57 11 3      Longitude West 081 42 21 6

**Use Decimal Degrees: NAD83**

7966623548

# FORM B-1: BUFFER SAMPLE PLOTS (Front)

Reviewed by (Initial): \_\_\_\_\_

DATE: 08/12/2013

Site ID: PCAP NC 1369

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

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 <5' 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

Buffer Sample Plots 05/27/2011

**FORM B-1: BUFFER SAMPLE PLOTS - TARGETED ALIEN SPECIES (Back)**

**Reviewed by (Initials):**

**Site ID:** PCAP NC 1369

**DATE:** 08.12.2013

• Confirm a filled data bubble indicates presence and an unfilled bubble indicates absence by filling in this bubble

FIII bubble If present - Plot	1	2	3	Flag	FIII bubble If present - Plot	1	2	3	Flag	FIII bubble If present - Plot	1	2	3	Flag
Eurasian Watermilfoil	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Purple Loosestrife	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Johnson Grass	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Water hyacinth	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Knotweed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Kudzu	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Yellow Floating Heart	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Japanese Knotweed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Multiflora Rose	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Giant Salvinia	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Perennial Pepperweed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Common Buckthorn	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Garlic Mustard	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Giant Reed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Himalayan Blackberry	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Poison Hemlock	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Cheatgrass	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Tamarisk	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Mile-A-Minute Weed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Reed Canary Grass	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Other:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Birdsfoot Trefoil	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Common Reed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Other:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Canada Thistle	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Leafy Spurge	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Other:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
										Other:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	

## PLOT COORDINATES

Provide GPS coordinates at the center of the Buffer Plot (#3) at the far end of each Buffer Transect and for the Buffer Plot at the AA CENTER. Indicate the location of the plot coordinates by filling in the appropriate bubble.

If Buffer Plot 3 can not be accessed, take the coordinates at the nearest practicable location ALONG THE TRANSECT. This is important because all Buffer Plots are centered on the Buffer Transects and the coordinates will indicate the location of the transect. Fill in the "nearest practicable location" bubble, fill in the flag box, and describe where the coordinates were taken and why in the comment section below. The coordinates of the nearest practicable location can be either placed as close to the center of Plot 3 as possible or at the center of the last accessible Buffer Plot.

**Location of coordinates (choose one):**

### Flag

AA CENTER     N3     S3     E3     W3     Nearest practicable location (flag and comment below)

Latitude North 41° 57' 06.4"

Longitude West 080.42386

**Use Decimal Degrees; NAD83**

Buffer Sample Points - Targeted Alien Species 05/27/2011

7966623548

## FORM B-1: BUFFER SAMPLE PLOTS (Front)

Reviewed by (Initial): \_\_\_\_\_

Site ID:

PCAP 1369 NC

DATE: 08/12/2013

Location:

O AA Center

N

OS

OE

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(&lt;10%); 2=Moderate(10-40%); 3 = Heavy (40-75%); 4 = Very Heavy (&gt;75%)

Buffer Plot 1	Canopy Type: D		Absent: 0	Buffer Plot 2	Canopy Type: E		Absent: 0	Buffer Plot 3	Canopy Type: B		Absent: 0		
	Leaf Type: B	Leaf Type: N	Flag		Leaf Type: B	Leaf Type: N	Flag		Leaf Type: B	Leaf Type: N	Flag		
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
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
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
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
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

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	Hydrology Stressors	Agricultural & Rural Stressors			
	1	2	3			1	2	3	Flag
Road - gravel	0	0	0		Ditches, Channelization	0	0	0	
Road - two lane	0	0	0		Dike/Dam/Road/RR Bed (IMPEDE FLOW)	0	0	0	
Road - four lane	0	0	0		Water Level Control Structure	0	0	0	
Parking Lot/Pavement	0	0	0		Excavation, Dredging	0	0	0	
Golf Course	0	0	0		Fill/Spoil Banks	0	0	0	
Lawn/Park	0	0	0		Freshly Deposited Sediment (UNVEGETATED)	0	0	0	
Suburban Residential	0	0	0		Soil Loss/Root Exposure	0	0	0	
Urban/Multifamily	0	0	0		Wall/Riprap	0	0	0	
Landfill	0	0	0		Inlets, Outlets	0	0	0	
Dumping	0	0	0		Point Source/Pipe (EFFLUENT OR STORMWATER)	0	0	0	
Trash	0	0	0		Impervious surface input (SHEETFLOW)	0	0	0	
Other: _____	0	0	0		Other: _____	0	0	0	
Other: _____	0	0	0		Other: _____	0	0	0	

## Industrial Development Stressors

Fill bubble if present - Plot	1	2	3	Flag	Habitat/Vegetation Stressors	Industrial Development Stressors			
	1	2	3			1	2	3	Flag
Oil Drilling	0	0	0		Forest Clear Cut	0	0	0	
Gas Wells	0	0	0		Forest Selective Cut	0	0	0	
Mine (surface)	0	0	0		Tree Plantation	0	0	0	
Mine (underground)	0	0	0		Tree Canopy Herbivory (INSECT)	0	0	0	
Military	0	0	0		Shrub Layer browsed (WILD OR DOMESTIC)	0	0	0	
Other: _____	0	0	0		Highly Grazed Grasses (OVERALL <3' HIGH)	0	0	0	
Other: _____	0	0	0		Recently Burned Forest Canopy	0	0	0	
Other: _____	0	0	0		Recently Burned Grassland (BLACKENED)	0	0	0	

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

Buffer Sample Plots 05/27/2011

2428168304

Private rose,

FORM B-1: BUFFER SAMPLE PLOTS - TARGETED ALIEN SPECIES (Back)

Reviewed by (Initials):

**Site ID:** PCAS NC 1369

DATE: 08/12/2013

Confirm a filled data bubble indicates presence and an unfilled bubble indicates absence by filling in this bubble

FIII bubble If present - Plot	1	2	3	Flag	FIII bubble If present - Plot	1	2	3	Flag	FIII bubble If present - Plot	1	2	3	Flag
Eurasian Watermilfoil	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Purple Loosestrife	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Johnson Grass	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Water hyacinth	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Knotweed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Kudzu	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Yellow Floating Heart	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Japanese Knotweed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Multiflora Rose	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	
Giant Salvinia	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Perennial Pepperweed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Common Buckthorn	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Garlic Mustard	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Giant Reed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Himalayan Blackberry	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Poison Hemlock	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Cheatgrass	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Tamarisk	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Mile-A-Minute Weed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Reed Canary Grass	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Other:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Birdsfoot Trefoil	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Common Reed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Other:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Canada Thistle	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Leafy Spurge	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		Other:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
										Other:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	

## PLOT COORDINATES

Provide GPS coordinates at the center of the Buffer Plot (#3) at the far end of each Buffer Transect and for the Buffer Plot at the AA CENTER. Indicate the location of the plot coordinates by filling in the appropriate bubble.

If Buffer Plot 3 can not be accessed, take the coordinates at the nearest practicable location ALONG THE TRANSECT. This is important because all Buffer Plots are centered on the Buffer Transects and the coordinates will indicate the location of the transect. Fill in the "nearest practicable location" bubble, fill in the flag box, and describe where the coordinates were taken and why in the comment section below. The coordinates of the nearest practicable location can be either placed as close to the center of Plot 3 as possible or at the center of the last accessible Buffer Plot.

**Location of coordinates (choose one):**

AA CENTER     N3     S3     E3     W3     Nearest practicable location (flag and comment below)

### Flag

Latitude North 41 57 00. Longitude West 081 42 57.7

**Use Decimal Degrees; NAD83**

Buffer Sample Points - Targeted Alien Species 05/27/2011

7966623548