

Missing from  
original Folder

CLEVELAND METROPARKS Plant Community Assessment Program: Quality Control Form



Project Label:

PCAP

Plot No:

1400

Date Sampled:

8/22/13

Lead:

Lance

Comment required if item answer is NO

Parking/Access outside of Park Boundaries:	Y <input checked="" type="radio"/> N <input type="radio"/>	If yes, write details in Comments section below
Field journals completed	Y <input checked="" type="radio"/> N <input type="radio"/>	
Site sketch made on 1:3000 map?	Y <input checked="" type="radio"/> N <input type="radio"/>	
Check cover page	X-axis Bearing of plot recorded	Y <input checked="" type="radio"/> N <input type="radio"/>
	GPS coords. Recorded	Y <input checked="" type="radio"/> N <input type="radio"/>
	North direction recorded	Y <input checked="" type="radio"/> N <input type="radio"/>
	Photographs taken?	Y <input checked="" type="radio"/> N <input type="radio"/>
Plot No., Date agreement on all pages?	Y <input checked="" type="radio"/> N <input type="radio"/>	
Header data completed all pages?	Y <input checked="" type="radio"/> N <input type="radio"/>	
Cover classes recorded in all Intensive modules	Y <input checked="" type="radio"/> N <input type="radio"/>	
Browse Level By Species	Y <input checked="" type="radio"/> N <input type="radio"/>	
Woody stem quality control check	Y <input checked="" type="radio"/> N <input type="radio"/>	
Invasive plant quality control check	Y <input checked="" type="radio"/> N <input type="radio"/>	
Ash trees mapped	Y <input checked="" type="radio"/> N <input type="radio"/>	NA
Cover by Strata? (confirm cover type)	Y <input checked="" type="radio"/> N <input type="radio"/>	
Soil samples collected with matching plot #.	Y <input checked="" type="radio"/> N <input type="radio"/>	
Vouchers labeled on datasheet with initials and number	Y <input checked="" type="radio"/> N <input type="radio"/>	NONE
Vouchers labeled on collection bag	Y <input checked="" type="radio"/> N <input type="radio"/>	
Pink flags removed	Y <input checked="" type="radio"/> N <input type="radio"/>	
Data sheet QA before leaving site?	Y <input checked="" type="radio"/> N <input type="radio"/>	NO
Common equipment returned to tub.	Y <input checked="" type="radio"/> N <input type="radio"/>	
Data sheets scanned?	9/3	Enter date to left RC
Final data sheets scanned?		Enter date to left
Buffer Widths measured?	Y <input checked="" type="radio"/> N <input type="radio"/>	BB 6-28-13 CL 6-28-13
Web Soil Survey	Y <input checked="" type="radio"/> N <input type="radio"/>	AB 8/27/13
Voucher Location	Refrigerator	Y <input checked="" type="radio"/> N <input type="radio"/>
# vouchers collected <i>None</i>	Press (#)	Enter number to left
	Drier	Y <input checked="" type="radio"/> N <input type="radio"/>
	Identified	Y <input checked="" type="radio"/> N <input type="radio"/>
	Mounted	Y <input checked="" type="radio"/> N <input type="radio"/>
	Thrown away	Y <input checked="" type="radio"/> N <input type="radio"/>

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. parkinglot, 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

Page 1 of 2  
Cleveland Metroparks

<b>GENERAL INFORMATION</b>		<b>LOCATION</b>																				
Project Label: PCAP		State: OH County: Cuyahoga																				
Project Name: 01 SC 2013		Quadrangle: 121																				
Plot Name: <b>Woody Dump</b>		Local Place Names: Intersection of Cannon Rd. & Arbor Ln.																				
Plot No.: 1400		Landowner: CMP																				
<input type="checkbox"/> Level 4 (no nested corners sampled) <input checked="" type="checkbox"/> Level 5 (nested corners sampled)		Date (mm/dd/yyyy): <b>08/22/2013</b>																				
End date (if > 1 day): / /		Reason:																				
Party		If data not public why?																				
<b>A. Lance</b> <b>R. Eagle</b> <b>R. Chesla</b> <b>Woolly Crew</b>		Source of coordinates: <input checked="" type="checkbox"/> Public data <input type="checkbox"/> Private Data <input type="checkbox"/> Fuzz 100m <input type="checkbox"/> Fuzz 250m <input type="checkbox"/> Fuzz 500m																				
<b>Role**</b> <b>Pilot leader</b> <b>Woolly Crew</b>		Data Confidentiality: <input checked="" type="checkbox"/> Public data <input type="checkbox"/> Private Data <input type="checkbox"/> Fuzz 100m <input type="checkbox"/> Fuzz 250m <input type="checkbox"/> Fuzz 500m																				
		Check one: <input checked="" type="checkbox"/> Public data <input type="checkbox"/> Private Data <input type="checkbox"/> Fuzz 100m <input type="checkbox"/> Fuzz 250m <input type="checkbox"/> Fuzz 500m																				
		Coordinate system: <input checked="" type="checkbox"/> Lat/Long <input type="checkbox"/> UTM <input type="checkbox"/> StatePlane <input checked="" type="checkbox"/> GPS <input type="checkbox"/> deg <input type="checkbox"/> deg min <input type="checkbox"/> m <input type="checkbox"/> ft <input type="checkbox"/> Other (specify) _____																				
		Datum: <input checked="" type="checkbox"/> NAD83/WGS84 <input type="checkbox"/> NAD27 GPS location in plot x=0 to 5, y=-1.0+1): x = <b>0</b> y = <b>0</b> (base of plot x=0, y=0) Latitude: <b>41.40909</b> Longitude: <b>81.42056</b>																				
<b>Effort Level:</b> <input checked="" type="checkbox"/> Very thorough <input type="checkbox"/> Accurate <input type="checkbox"/> Hurried		<p><b>TAXONOMIC ACCURACY</b></p> <table border="1"> <tr> <td>high</td> <td>modera.</td> <td>low</td> <td>not samp!</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>vascul.</td> <td></td> <td></td> <td><input type="checkbox"/></td> </tr> <tr> <td>bry/o</td> <td></td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>lichen</td> <td></td> <td></td> <td><input checked="" type="checkbox"/></td> </tr> </table> <p><b>TAXONOMIC STANDARD</b></p> <p>Authority: G&amp;C Pub Date: 1998</p>	high	modera.	low	not samp!	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	vascul.			<input type="checkbox"/>	bry/o		<input checked="" type="checkbox"/>	<input type="checkbox"/>	lichen			<input checked="" type="checkbox"/>
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lichen			<input checked="" type="checkbox"/>																			
<p>Minimum required fields in Bold and Underlined</p> <p><sup>v</sup>Definitions and values in CM PCAP FOM v. 1.0 and CVS Field Guide</p>																						

## CLEVELAND METROPARKS Plant Community Assessment Program - Background Data Sheet

Project Label: PCAP

Project Name: 01 SE 2013

Plot No.: 1400

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## MODIFIED NATURE RESERVE CLASS\*

CODE (on separate form): D

Fit: Conf:

COMMUNITY NAME:  
*MIXED FOREST*

## HOMOGENEITY

- Homogeneous
- Compositional trend across the plot
- Irregular/pattern mosaic

## HYDROLOGIC REGIME\*

- |  |   |
|--|---|
| <input checked="" type="checkbox"/> Upland (seldom flooded)                              | <input type="checkbox"/> Intermittently flooded                             |
| <input type="checkbox"/> Intermittently/seasonally saturated (seldom flooded)            | <input type="checkbox"/> Semipermanently flooded                            |
| <input type="checkbox"/> Permanently/Semipermanent saturated (dry <1 yr, seldom flooded) | <input type="checkbox"/> Permanently flooded                                |
| <input type="checkbox"/> Occasionally flooded (<1/yr)                                    | <input type="checkbox"/> Tidal/Seiche flooded daily                         |
| <input type="checkbox"/> Temporarily flooded (e.g. wind, storms)                         | <input type="checkbox"/> Tidal/Seiche flooded monthly                       |
|  | <input type="checkbox"/> Tidal/Seiche flooded irregular (e.g. wind, storms) |
|  | <input type="checkbox"/> Unknown  |
- (by default unless plot is a wetland)

Additional notes &amp; diagrams: (Representativeness of plot to the stand, successional status, maturity, etc.)

*Whitegrass through mod 8.**Seems as though this area will eventually become a beech-maple forest.**\* Several large piles of woody debris was deposited throughout the plot. See drawing on front. & pictures C4-628, 629.*

DISTURBANCES					
	type*	severity**	yrs ago	% of plot	description
Human	H	0	100%		<del>trash</del> , dumped woody debris
Natural					
Fire					
Cut					
Animal	MH	0	100%		browse
Other					

\*\*I=low, ML=med low, M=med, MH=med high, H=high, VH=very high

Current Land Use: PARK

Former Land Use: UNKNOWN

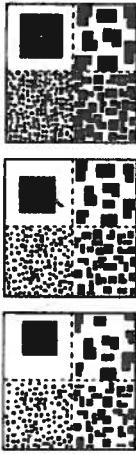


#### EXAMPLES OF PERCENT OF AREA COVERED

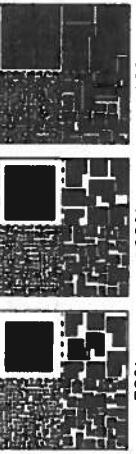
The following graphic can be used for various data elements to convey "Amount" or "Quantity". **NOTE:** Within any green box, each quadrant contains the same total area covered, just different sized objects.



2%

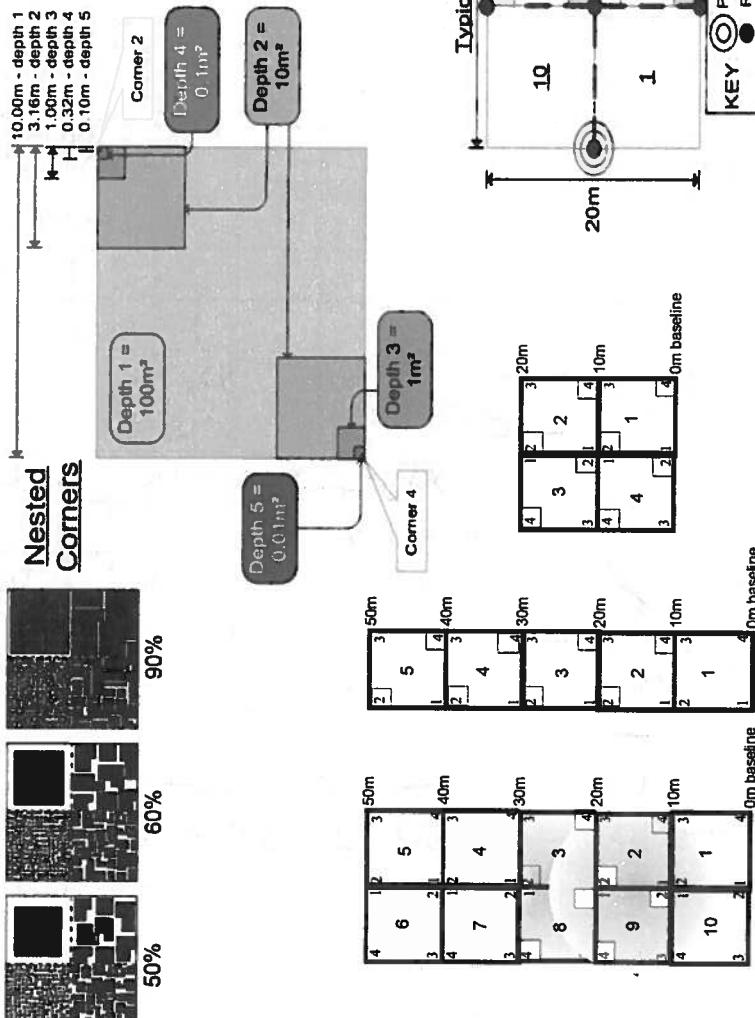


5%



15%

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



#### 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.

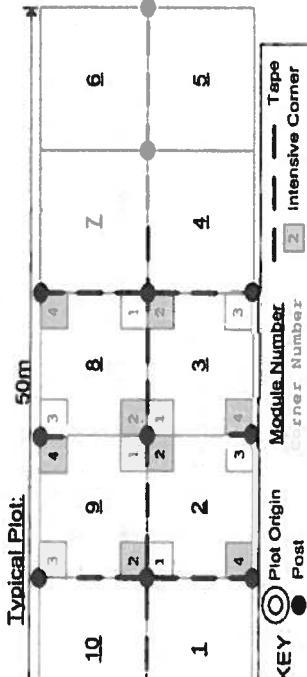
**MEDIUM LOW** values include evidence of browse at about 10 percent of the stems with no significant impact to plant reproduction evident. In this rating, plants are browsed but preferential species are observed to be reproducing in numbers that appear normal or near-normal in comparison to low browse 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.

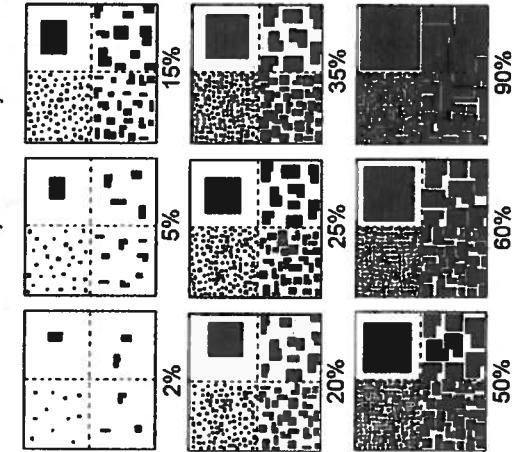
**VERY HIGH** values include extensive browse conditions, where the browse line is very evident AND almost all seedlings and herbs are severely browsed or missing. Browse line may be 5 to 6 feet in height with no or little green growth beneath.





#### 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.

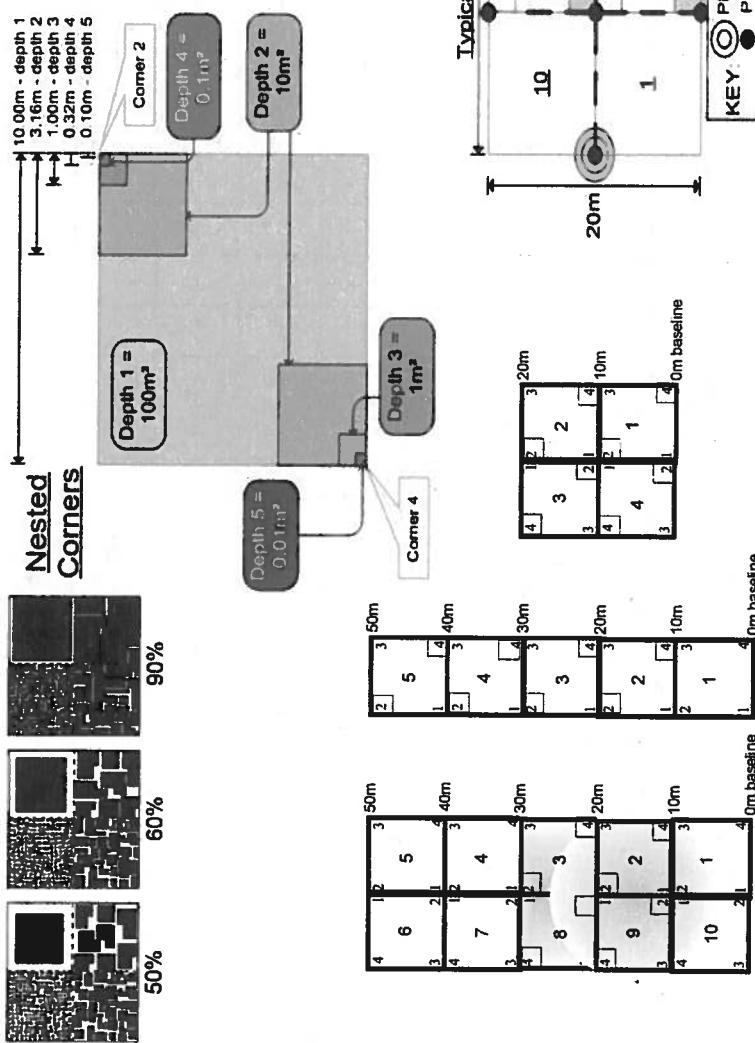
**MEDIUM LOW** values include evidence of browse at about 10 percent of the stems with no significant impact to plant reproduction evident. In this rating, plants are browsed but preferential species are observed to be reproducing in numbers that appear normal or near-normal in comparison to low browse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

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**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 Natural Woody Stem Data Sheet

Project Label: PCAP

Project Name: DISC 2013

Plot No.: 1400

Page: 1 of 4



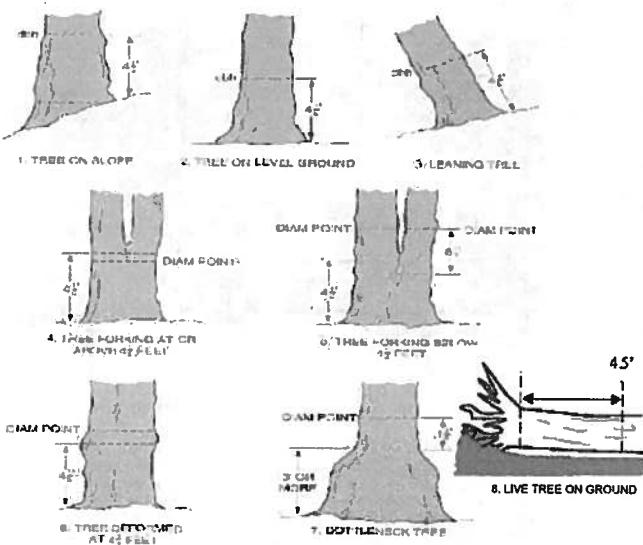
Explain subsample (additional room on back):

mod #	species	c	voucher#	# stems 0-1.4m browsed	% sub sample	# shrub clumps	size class (cm) woody stems >1.4m											>40 (record each tree)
							1	2	3	4	5	6	7	8	9	10	11	
1	<i>Pinus resinosa</i>						•											
1	<i>Acer saccharum</i>						•	•	•	•	•	•						
1	<i>Quercus rubra</i>						•											
1	<i>Prunus serotina</i>																	
1	<i>Acer rubrum</i>						•											
X1	<i>Amelanchier sp.</i>																	
1	Standing Dead																	
1	<i>Fagus grandifolia</i>						•											
2	<i>Prunus serotina</i>																	
2	<i>Acer saccharum</i>																	
2	<i>Amelanchier sp.</i>																	
2	<i>Fagus grandifolia</i>						•											
2	<i>Pinus resinosa</i>						•											
2	Standing Dead																	
2	<i>Acer rubrum</i>																	
3	<i>Acer saccharum</i>																	
3	<i>Acer rubrum</i>	x																
3	<i>Fraxinus sp.</i>	x																
3	<i>Fagus grandifolia</i>																	
3	Standing dead																	
3	<i>Lonicera morrowii</i>																	
3	<i>Fraxinus americana</i>																	
3	<i>Prunus serotina</i>																	
4	<i>Prunus serotina</i>						•											

SEE ID 513

45.7

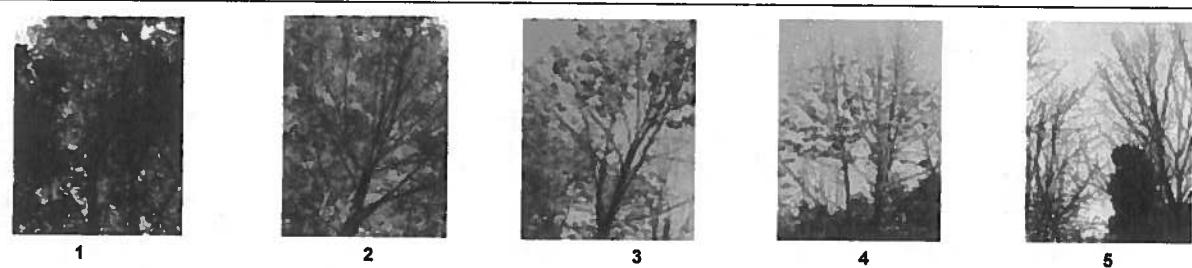
### DBH Measurement Rules



### 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 Woody Stem Data Sheet

Project Label: PCAP

Project Name: DISC 2013

Plot No.: 1400

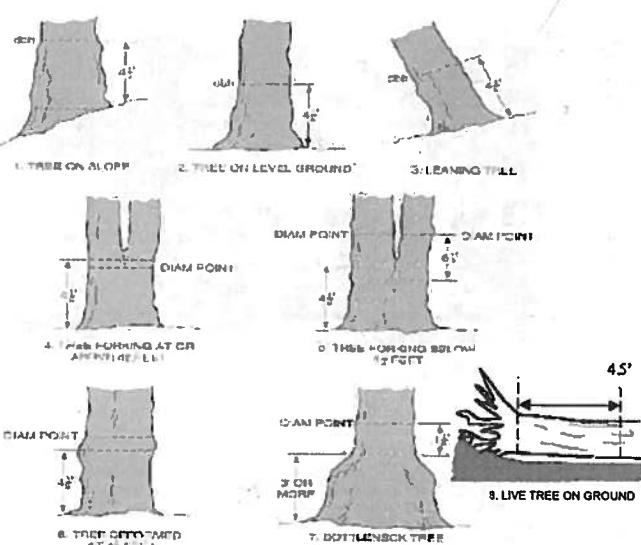
Page: 2 of 4



Explain subsample (additional room on back):

mod #	species	c	voucher#	# stems 0-1 4m browsed	% sub or super sample	# shrub clumps	size class (cm) woody stems > 1.4m										>40 (record each tree)
				1	2	3	4	5	6	7	8	9	10	11			
4	Standing dead																
4	<i>Frangula alnus</i>			2:													
4	<i>Acer saccharum</i>																
4	<i>Fagus grandifolia</i>																
4	<i>Acer rubrum</i>																
4	<i>Amelanchier</i> sp.																
5	<i>Prunus serotina</i>																
5	<i>Acer saccharum</i>																
5	<i>Quercus rubra</i>																
5	Standing Dead																
5	<i>Fagus grandifolia</i>			21													
5	<i>Carpinus caroliniana</i>																
5	<i>Frangula alnus</i>																
5	<i>Acer rubrum</i>																
5	<i>Amelanchier</i> sp.			20													
5	<i>Quercus</i> sp.																
5	<i>Fraxinus</i> sp.			20													
5	<i>Ostrya virginiana</i>																
5	<i>Pinus resinosa</i>																
6	<i>Fraxinus</i> sp.																
6	<i>Fagus grandifolia</i>																
6	<i>Amelanchier</i> sp.																
6	<i>Quercus</i> sp.																
6	Standing dead																

### 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: 015C 2013

Plot No.: 1400

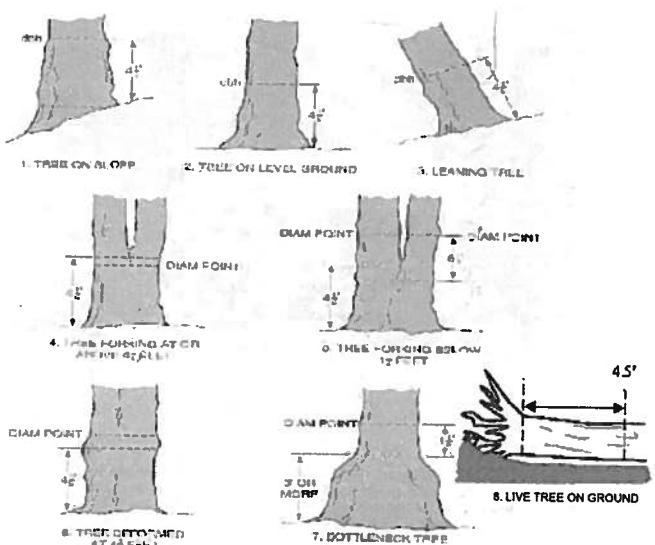
Page: 3 of 4

 Cleveland Metroparks

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	
6	<i>Acer saccharum</i>		6	0	0	0	0	0	0	0	0	0	0	0	0	0	45.2
6	<i>Prunus serotina</i>		6	0	0	0	0	0	0	0	0	0	0	0	0	0	43.7
6	<i>Acer rubrum</i>		6	0	0	0	0	0	0	0	0	0	0	0	0	0	40.8
6	<i>Pinus resinosa</i>		6	0	0	0	0	0	0	0	0	0	0	0	0	0	
7	<i>Acer rubrum</i>		7	0	0	0	0	0	0	0	0	0	0	0	0	0	
7	<i>Prunus pensylvanica</i>		7	0	0	0	0	0	0	0	0	0	0	0	0	0	44.2
7	<i>Fagus grandifolia</i>		7	0	0	0	0	0	0	0	0	0	0	0	0	0	
7	<i>Quercus rubra</i>		7	0	0	0	0	0	0	0	0	0	0	0	0	0	
8	<i>Acer saccharinum</i>		8	0	0	0	0	0	0	0	0	0	0	0	0	0	
8	<i>Pinus strobus</i>		8	0	0	0	0	0	0	0	0	0	0	0	0	0	
8	<i>Fraxinus americana</i>		8	0	0	0	0	0	0	0	0	0	0	0	0	0	
8	<i>Fraxinus pennsylvanica</i>		8	0	0	0	0	0	0	0	0	0	0	0	0	0	
8	<i>Acer saccharinum</i>		8	0	0	0	0	0	0	0	0	0	0	0	0	0	
8	<i>Fraxinus nigra</i>		8	0	0	0	0	0	0	0	0	0	0	0	0	0	
9	<i>Crataegus sp.</i>		9	0	0	0	0	0	0	0	0	0	0	0	0	0	
9	<i>Acer rubrum</i>		9	0	0	0	0	0	0	0	0	0	0	0	0	0	
9	<i>Toxicodendron radicans</i>		9	0	0	0	0	0	0	0	0	0	0	0	0	0	
9	<i>Prunus pensylvanica</i>		9	0	0	0	0	0	0	0	0	0	0	0	0	0	
9	<i>Frangula alnus</i>		9	0	0	0	0	0	0	0	0	0	0	0	0	0	
9	<i>Fraxinus sp.</i>		9	0	0	0	0	0	0	0	0	0	0	0	0	0	

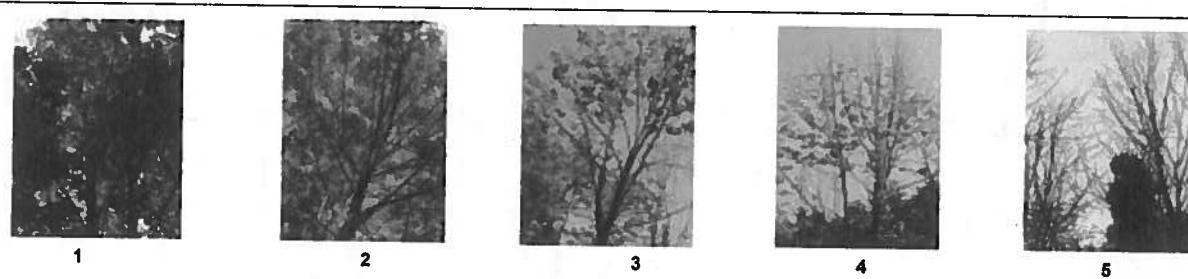
### DBH Measurement Rules



### Woody Stem Deer Browse

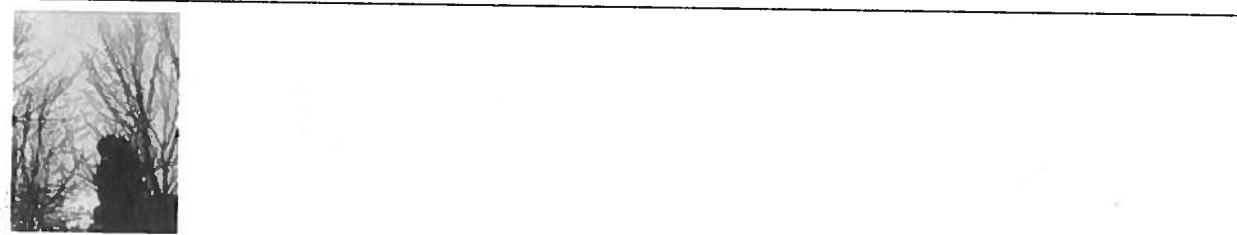
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2. Thinning canopy: There aren't as many leaves as there ought to be, but all top branches exposed to sunlight have leaves.
3. Dieback: Canopy is thinning and some top branches exposed to sunlight are dead (have no leaves). Lower branches, not exposed 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.



### 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: DISC2013

Plot No.: 1400

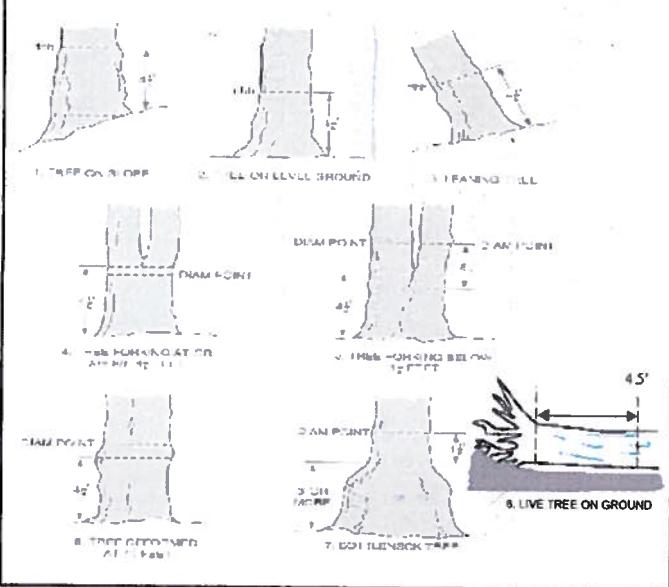
Page: 4 of 4

Cleveland Metroparks

Explain subsample (additional room on back):

mod #	species	c	voucher#	# stems 0-1.4m browsed	% sub or super sample	# shrub clumps	size class (cm) woody stems >1.4m										>40 (record each tree)
							1	2	3	4	5	6	7	8	9	10	
9	Acer saccharum						•	•	•	•							
9	Pinus resinosa																
9	Standing Dead																
9	Hedera virginiana																
10	Acer saccharum						•	•	•	•							
10	Standing Dead						•	•	•	•							
10	Prunus pensylvanica																
10	Pinus resinosa																
10	Ulmus americana																

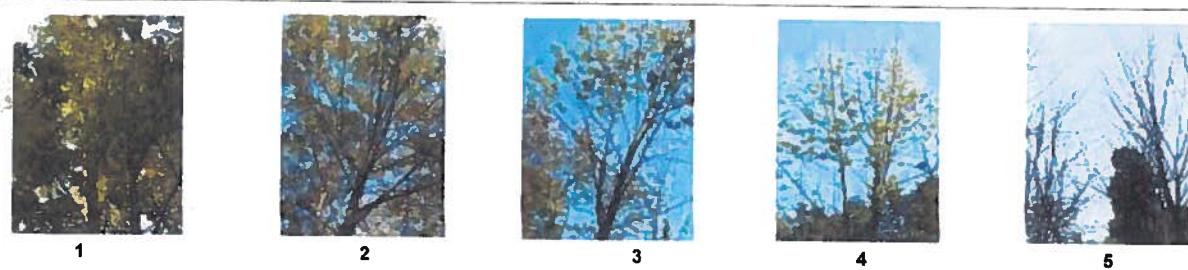
### DBH Measurement Rules



### 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)

- 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 Emerald Ash Borer - <i>Fraxinus</i> Sheet									
Project Label: <u>PCAP</u>									
Project Name: <u>OISCA2013</u>									
INTENSIVE MODULES ONLY      TREES $\geq 10\text{CM}$ ONLY									
Plot No.: <u>1400</u> Date: <u>22 Aug 2013</u>									
Page: 1 of 2									

© Ohio Department of Natural Resources

Module	Tree ID.	Species	Dead c.	Voucher #	DBH (cm)	Ht @ DBH (m)	Ash condition	*Dead condition	# Exit holes	ASH Only	Epicormic present	Woodpecker holes
1		<u>NONE</u>										
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												

Baseline

\*\*\* Change intensive module numbers when necessary

9

8

2

3

N

Map all ash trees  $\geq 10\text{cm}$  in each module using Tree ID number

- \* If Ash Condition scores 5 (dead) provide breakup score (A-E)
- Count EAB exit holes 1.25mm x 21.5mm
- Woodpecker and epicormic marked present (1) or absent (0)

CLEVELAND METROPARKS Plant Community Assessment Program: Invasive Species Survey



Tier 1: Early detection/ Rapid response

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

Presence
X: yes

Tier 2: Assess as Needed

		# of Plants				comments
		NE	SE	SW	NW	
Acer platanoides	Norway Maple					
Ailanthus altissima	Tree of Heaven					
Lonicera japonica (vine)	Japanese Honeysuckle					
Lythrum salicaria (wetland)	Purple Loosestrife					
Aegopodium podagraria (G-cover)	Bishop's Goutweed					
Celastrus orbiculatus (vine)	Asian Bittersweet					
Torilis sp.	Hedgeparsley					
Conium maculatum	Poison Hemlock					
Rhamnus cathartica	Common Buckthorn (shrub)					
Berberis thunbergii	Japanese Barberry (shrub)	4	1			
Alnus glutinosa	European Alder					
Dipsacus laciniatus	Cut-leaf Teasel					
Elaeagnus umbellata	Autumn Olive (shrub)					
Lonicera maackii	Amur Honeysuckle (shrub)		2			
Euonymus fortunei	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	
Convallaria majalis (G-cover)	Lily of the Valley					
Coronilla varia (G-cover)	Crown Vetch					
Eleutherococcus pentaphyllus	Five-leaf Aralia (shrub)					
Pachysandra terminalis (G-cover)	Japanese Pachysandra					
Philadelphus coronarius	Mock Orange (shrub)					
Pulmonaria officinalis (G-cover)	Lungwort					
Rubus phoenicolasius	Wineberry					
Iris pseudacorus (wetland)	Yellow Flag Iris					
Ornithogalum umbellatum	Star of Bethlehem					
Viburnum opulus var. opulus	European Cranberry (shrub)					
Viburnum plicatum	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	
Alliaria petiolata	Garlic Mustard	2	1	1	2	
Ligustrum vulgare	Common Privet (shrub)					
L. morrowii, L. tatarica	Bush Honeysuckles (shrub)	1	1	1	2	
Phalaris arundinacea	Reed Canarygrass					
Phragmites australis (wetland)	Phragmites					
Polygonum cuspidatum	Japanese Knotweed					
Frangula alnus	Glossy Buckthorn (shrub)	2	5	3	1	
Rosa multiflora	Multiflora Rose (shrub)				2	
Typha angustifolia, T. x. glauca	Cattails (wetland)					
Cirsium arvense	Canada thistle					
Dipsacus fullonum	Common Teasel					
Hesperis matronalis	Dame's Rocket					
Vinca minor (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)

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

Project Label: PCAP

Project Name: OISCA2013

Plot No.: 1400



Page: 1 of 1

STANDING BIOMASS (required for emergent wetlands) collected in 0.1 m clip plus (32x32 cm) from corners 1 and 3 in each intensive module. Required for VIBI-E score calculation. C+ check when collected.

Module #	C?	Corner	Corner

MICROTOPOGRAPHIC FEATURE COUNTS - Intensive modules only

Ranks for microhabitat features. Select one or select two and average the score. NOTE: If road falls on a slope automatically gets ranked based on steepness (1-3) to begin + any features present  
 Slope 1 = slight elevational grade across module (0-1)  
 Slope 2 = falls on slope ~20°  
 Slope 3 = maximum steepness that can be safely sampled ~45°

- 0 feature is absent or functionally absent from the wetland
- 3 feature is present in the wetland in very small amounts or if more common, of few quality
- 7 feature is present in moderate amounts, but not of highest quality, or in small amounts of highest quality
- 10 feature is present in moderate or greater amounts and of highest quality

L.W.D. - Count for pieces with minimum 1m length

no. of tussocks	no. of hummocks	no macro depressions	c w/d (2-12 cm)	c w/d (12-40 cm)	c w/d >40 cm	microhab interspers	microhab interspers
depth 3	depth 2	depth 1	depth 1	depth 1	depth 1	depth 1	depth 1
1x1m	3x3x3 cm	10x10m	10x10m	10x10m	10x10m	10x10m	10x10m
mod#	corner (count)	(count)	(count)	(count)	(count)	(rank)	(rank)
2	0	1	57	13	0	3	1
3	0	0	58	2	1	3	1
4	0	0	1	59	1	3	0
9	0	0	24	8	0	3	1

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

CLASSIFICATION

VFI = excellent fit and Confidence

Hydrogeomorphic class WETLANDS ONLY:

DEPRESSION	IMPOUNDMENT	RIVERINE	SLOPE	FRINGING	COASTAL	BOG	Ohio EPA VIBI Plant Community Class WETLANDS ONLY:
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fit= _____	Fit= _____	Fit= _____	Fit= _____	Fit= _____	Fit= _____	Fit= _____	Fit= _____
Conf= _____	Conf= _____	Conf= _____	Conf= _____	Conf= _____	Conf= _____	Conf= _____	Conf= _____
AI spec1	N	E	SE	S	SW	W	NW
LFI is angle of horizon TSI is angles formed by local slopes. For TSI measure recorder eye 10° e of person standing ~10 m away.	+45 degrees	+90 degrees	+135 degrees	+180 degrees	+225 degrees	+270 degrees	+315 degrees

[FILLED OUT USING GIS PROGRAM - DO NOT FILL OUT IN FIELD]

MCNAB INDICES (degrees) + for up - for down

Module	N	S	E	W
2	7	6	5	2
3	13	2	3	1
8	8	20	5	3
9	5	3	4	5

CROWN COVER (DENSIOMETER) Max=4 readings per module facing N S E W Place dot count in corresponding space (4 dots per grid square)

Module	N	S	E	W
2	7	6	5	2
3	13	2	3	1
8	8	20	5	3
9	5	3	4	5

**COVER BY STRATA**

STRATUM	GENERAL FORM
Tree (generally >5 m)	Tree (overstory), very tall shrubs*, liana, epiphyte)
Shrub (generally 0.5 to 5 m)	Tree (sapling), shrub, liana, epiphyte)
Herb (Field)	Herb, dwarf-shrub**, tree (seedling***)
Floating	Floating
Aquatic (submerged)	Submerged

\*Very tall shrubs are sometimes included in the tree stratum  
\*\*Can also include seedlings of shrubs, i.e. all shrubs <0.5m  
\*\*\*Tree seedlings are often defined as up to 1.4 m height or as <2.5 cm DBH in which case they would span the herb and shrub layers.

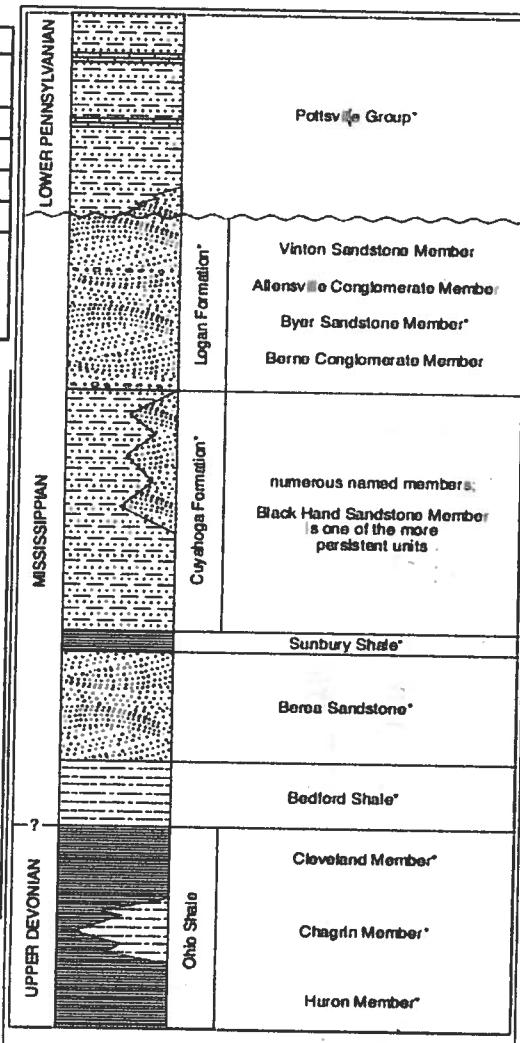
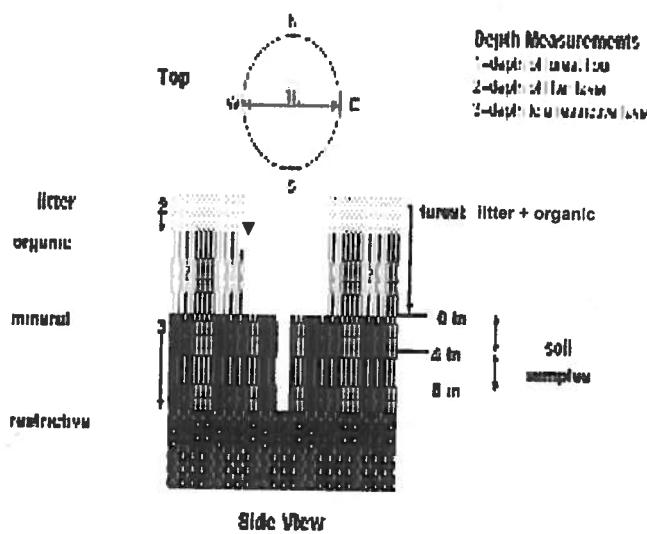


FIGURE 3-20.—Generalized section of Upper Devonian, Mississippian, and Lower Pennsylvanian formations in northeastern Ohio. Asterisks indicate units that are fossiliferous. This composite section represents about 400 meters of rock exposed across the area. The section is not to scale but the thicknesses indicated are proportional. The term "Waverly" is used in the older literature to refer to Mississippian rocks in Ohio. Some geologists use the European term "Carboniferous," which encompasses the Mississippian and Pennsylvanian Periods of the U.S. Many units have been named within the Cuyahoga Formation, but most units are local and cannot be traced over great distances. The Black Hand Member is a spectacular massive sandstone that is fairly widespread but discontinuous. See Hyde (1953), Hoover (1960), and Collins (1979) for more information on Mississippian rocks in Ohio. See figure 3-18 for explanation of rock types.

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

**SOIL SAMPLES** Standard procedure: collect a soil sample of the top 10 cm of soil from center of each intensive module and composite the sample.

**Soil pit module #** 3 (one per entire plot)

5 cm	matrix color	2.5YR 1/2
	mottle color	0
	% smotte	0
	oxid roots	Y N
	texture*	1
	redox features**	Y N
	hydr cond***	I S M D
20 cm	matrix color	2.5YR 4/4
	mottle color	0
	% smotte	0
	oxid roots	Y N
	texture*	2
	redox features**	Y N
	hydr cond ***	I S M D

**EARTH SURFACE & GROUND COVER**

Underlying Earth Surface*	Ground Cover
(Sum = 100%)	percent
Histosol	0%
Mineral Soil	100%
Gravel-Cobble*	0
Boulder**	0%
Bedrock	0%
*Gravel-Cobble = 1/16-10"	Water
**Boulder = > 10 in	Bare Soil
*** > 5 cm in diameter	Road/Traffic
	Other

Impermeable surface

**Depth to rest Layer:** **Knoolls** 10cm

**Parent Material:** **Till**

**DRAINAGE\***

- Excessively dr.
- Somewhat excessively
- Well drained
- Moderately well dr.
- Somewhat poorly dr.
- Very poorly dr.

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

Strata	Height Range (m)	Total Cover (%)
Tree	5 -	93%
Shrub	0.5 - 5	73%
Herb	0 - 0.5	13%
(Aquatic)*	-	18%

#### STAND SIZE

>600 x plot size
> 100 x plot size
(0.1-1.00 x plot size
3-10 x plot size
1-3 x plot size
< plot size

**ANIMALS** Worms present (1), no casting, middens

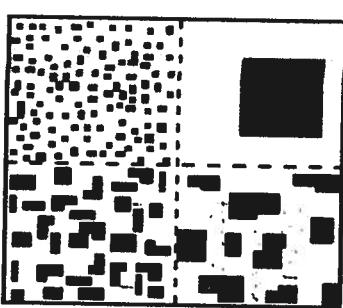
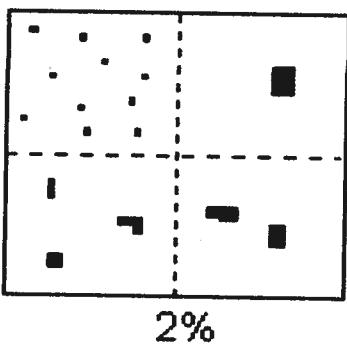
1	3.6	3.6	0	>30
2	3.6	3.6	0	>30
3	3.6	3.6	0	>30
4	0	0	0	>30
5	3.1	3.1	0	>30

- \* refer to texture classes on reverse side
- \*\* e. hydrogen sulfide odor, gleying, etc.
- \*\*\* Circle one:
- I=indurated S=saturated M=moist D=dry
- Notes: include evidence of earthworms (worms, castings, middens)

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

### 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

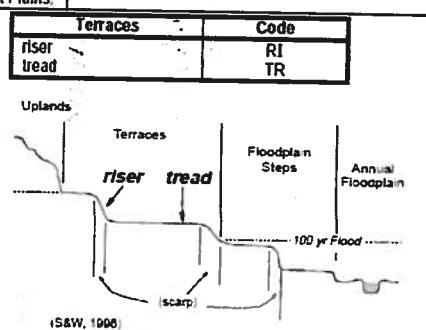
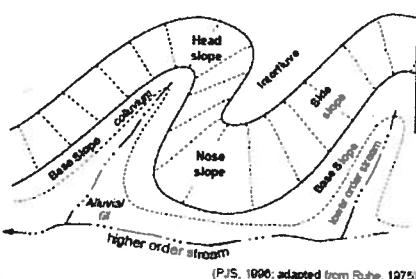
3= Sandy

4= Coarse Sand

9= Not measured - make plot note

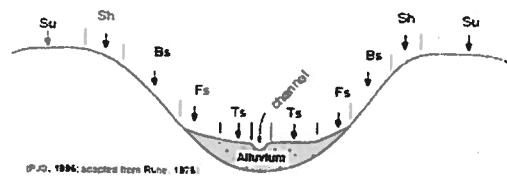
**Geomorphic Component** - Three-dimensional descriptors of parts of landforms or microfeatures that are best applied to areas. Unique descriptors are available for Hills, Terraces, Mountains, and Flat Plains; e.g., (for Hills) nose slope or NS.

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



**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.

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

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

Site ID: PCAP SC 1400

DATE: 08/22/2013

Location:

O AA Center   O N   O S   O E   O W

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

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

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

Residential and Urban Stressors				Hydrology Stressors				Agricultural & Rural Stressors							
Fill bubble if present - Plot	1	2	3	Flag	Fill bubble if present - Plot	1	2	3	Flag	Fill bubble if present - Plot	1	2	3	Flag	
Road - gravel	0	0	0		Ditches, Channelization	0	0	0		Pasture/Hay	0	0	0		
Road - two lane	0	0	0		Dike/Dam/Road/RR Bed (IMPEDE FLOW)	0	0	0		Range	0	0	0		
Road - four lane	0	0	0		Water Level Control Structure	0	0	0		Row Crops	0	0	0		
Parking Lot/Pavement	0	0	0		Excavation, Dredging	0	0	0		Fallow Field (RECENT-RESTING ROW CROP FIELD)	0	0	0		
Golf Course	0	0	0		Fill/Spoil Banks	0	0	0		Fallow Field (OLD - GRASS, SHRUBS, TREES)	0	0	0		
Lawn/Park	0	0	0		Freshly Deposited Sediment (UNVEGETATED)	0	0	0		Nursery	0	0	0		
Suburban Residential	0	0	0		Soil Loss/Root Exposure	0	0	0		Dairy	0	0	0		
Urban/Multifamily	0	0	0		Wall/Riprap	0	0	0		Orchard	0	0	0		
Landfill	0	0	0		Inlets, Outlets	0	0	0		Confined Animal Feeding	0	0	0		
Dumping	0	0	0		Point Source/Pipe (EFFLUENT OR STORMWATER)	0	0	0		Rural Residential	0	0	0		
Trash	0	0	0		Impervious surface input (SHEETFLOW)	0	0	0		Gravel Pit	0	0	0		
Other: _____	0	0	0		Other: _____	0	0	0		Irrigation	0	0	0		
Other: _____	0	0	0		Other: _____	0	0	0		Other: _____	0	0	0		

Industrial Development Stressors				Habitat/Vegetation Stressors											
Fill bubble if present - Plot	1	2	3	Flag	Fill bubble if present - Plot	1	2	3	Flag	Fill bubble if present - Plot	1	2	3	Flag	
Oil Drilling	0	0	0		Forest Clear Cut	0	0	0		Herbicide Use	0	0	0		
Gas Wells	0	0	0		Forest Selective Cut	0	0	0		Mowing/Shrub Cutting	0	0	0		
Mine (surface)	0	0	0		Tree Plantation	0	0	0		Trails	0	0	0		
Mine (underground)	0	0	0		Tree Canopy Herbivory (INSECT)	0	0	0		Soil Compaction (ANIMAL OR HUMAN)	0	0	0		
Military	0	0	0		Shrub Layer browsed (WILD OR DOMESTIC)	0	0	0		Offroad vehicle damage	0	0	0		
Other: _____	0	0	0		Highly Grazed Grasses (OVERALL <3' HIGH)	0	0	0		Soil erosion (FROM WIND, WATER, OR OVERUSE)	0	0	0		
Other: _____	0	0	0		Recently Burned Forest Canopy	0	0	0		Other: _____	0	0	0		
Other: _____	0	0	0		Recently Burned Grassland (BLACKENED)	0	0	0		Other: _____	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

2428168304

Buffer Sample Plots 05/27/2011

NE → BB GB  
CE → GRI RN MD

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

Reviewed by (Initials):

**Site ID:** PCAP SC 1400

DATE: 08/22/2013

 **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="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

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

Latitude North 41.40994      Longitude West 81.42122

**Use Decimal Degrees; NAD83**

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

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

Site ID: PCAP SC 1400

DATE: 08 / 22 / 2013

Location: O AA Center O N O S O E O W	Fill in bubble(s) if plot(s) could not be sampled and flag → O Plot 1 O Plot 2 O Plot 3
--	--

## Buffer Natural Cover Strata

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

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

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

Residential and Urban Stressors				Hydrology Stressors				Agricultural & Rural Stressors							
Fill bubble if present - Plot	1	2	3	Flag	Fill bubble if present - Plot	1	2	3	Flag	Fill bubble if present - Plot	1	2	3	Flag	
Road - gravel	0	0	0		Ditches, Channelization	0	0	0		Pasture/Hay	0	0	0		
Road - two lane	0	0	0		Dike/Dam/Road/RR Bed (IMPEDE FLOW)	0	0	0		Range	0	0	0		
Road - four lane	0	0	0		Water Level Control Structure	0	0	0		Row Crops	0	0	0		
Parking Lot/Pavement	0	0	0		Excavation, Dredging	0	0	0		Fallow Field (RECENT-RESTING ROW CROP FIELD)	0	0	0		
Golf Course	0	0	0		Fill/Spoil Banks	0	0	0		Fallow Field (OLD - GRASS, SHRUBS, TREES)	0	0	0		
Lawn/Park	0	0	0		Freshly Deposited Sediment (UNVEGETATED)	0	0	0		Nursery	0	0	0		
Suburban Residential	0	0	0		Soil Loss/Root Exposure	0	0	0		Dairy	0	0	0		
Urban/Multifamily	0	0	0		Wall/Riprap	0	0	0		Orchard	0	0	0		
Landfill	0	0	0		Inlets, Outlets	0	0	0		Confined Animal Feeding	0	0	0		
Dumping	0	0	0		Point Source/Pipe (EFFLUENT OR STORMWATER)	0	0	0		Rural Residential	0	0	0		
Trash	0	0	0		Impervious surface input (SHEETFLOW)	0	0	0		Gravel Pit	0	0	0		
Other: _____	0	0	0		Other: _____	0	0	0		Irrigation	0	0	0		
Other: _____	0	0	0		Other: _____	0	0	0		Other: _____	0	0	0		

Industrial Development Stressors				Habitat/Vegetation Stressors											
Fill bubble if present - Plot	1	2	3	Flag	Fill bubble if present - Plot	1	2	3	Flag	Fill bubble if present - Plot	1	2	3	Flag	
Oil Drilling	0	0	0		Forest Clear Cut	0	0	0		Herbicide Use	0	0	0		
Gas Wells	0	0	0		Forest Selective Cut	0	0	0		Mowing/Shrub Cutting	0	0	0		
Mine (surface)	0	0	0		Tree Plantation	0	0	0		Trails	0	0	0	1	
Mine (underground)	0	0	0		Tree Canopy Herbivory (INSECT)	0	0	0		Soil Compaction (ANIMAL OR HUMAN)	0	0	0		
Military	0	0	0		Shrub Layer Browsed (WILD OR DOMESTIC)	0	0	0		Offroad vehicle damage	0	0	0		
Other: _____	0	0	0		Highly Grazed Grasses (OVERALL <3 HIGH)	0	0	0		Soil erosion (FROM WIND, WATER, OR OVERUSE)	0	0	0		
Other: _____	0	0	0		Recently Burned Forest Canopy	0	0	0		Other: _____	0	0	0		
Other: _____	0	0	0		Recently Burned Grassland (BLACKENED)	0	0	0		Other: _____	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

2428168304

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

Reviewed by (Initials):

**Site ID:** PCAP SC 1400

DATE: 08 / 22 / 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	Fill bubble if present - Plot	1	2	3	Flag	Fill 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: FRANGULA ALNUS	<input type="radio"/>	<input checked="" 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 41.40954      Longitude West 81.41938

**Use Decimal Degrees; NAD83**

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

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

Site ID: PCAP SC 1400

DATE: 08/22/2013

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

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

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

Residential and Urban Stressors				Hydrology Stressors					Agricultural & Rural Stressors					
Fill bubble If present - Plot	1	2	3	Flag	Fill bubble If present - Plot	1	2	3	Flag	Fill bubble If present - Plot	1	2	3	Flag
Road - gravel	○	○	○		Ditches, Channelization	○	○	○	2	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	○	○	○	1	Point Source/Pipe (EFFLUENT OR STORMWATER)	○	○	○		Rural Residential	○	○	○	
Trash	○	○	○		Impervious surface Input (SHEETFLOW)	○	○	○		Gravel Pit	○	○	○	
Other: _____	○	○	○		Other: _____	○	○	○		Irrigation	○	○	○	
Other: _____	○	○	○		Other: _____	○	○	○		Other: _____	○	○	○	

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

Flag codes: K = No measurement made, U = Suspect measurement., F1,F2, etc. = misc. flags assigned by each field crew.

Explain all flags in comment section on the back of this form

2428168304

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

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

**Site ID:** PCAP SC 1400

DATE: 08/22/2013

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	Fill bubble if present - Plot	1	2	3	Flag	Fill 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    O N3    O S3    O E3    O W3    O Nearest practicable location (flag and comment below)

Latitude North 41° 40' 899"      Longitude West 81° 43' 093"

**Use Decimal Degrees; NAD83**

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

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

Site ID: PCAP SC 1400

DATE: 08 / 22 / 2013

Location:

O AA Center O N O S O E O 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 E		Absent: <input type="radio"/>	Buffer Plot 2	Canopy Type: D E		Absent: <input type="radio"/>	Buffer Plot 3	Canopy Type: D E		Absent: <input type="radio"/>
	Leaf Type: B	N	Flag		Leaf Type: B	N	Flag		Leaf Type: B	N	Flag
Big Trees (>0.3m DBH)	<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"/>
Small Trees (<0.3m DBH)	<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"/>
Woody Shrubs, Saplings (0.5m-5m HIGH)	<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"/>
Woody Shrubs, Saplings (<0.5m HIGH)	<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"/>
Herbs, Forbs and Grasses	<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"/>
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 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				Hydrology Stressors				Agricultural & Rural Stressors							
Fill bubble if present - Plot	1	2	3	Flag	Fill bubble if present - Plot	1	2	3	Flag	Fill bubble if present - Plot	1	2	3	Flag	
Road - gravel	<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/Spoil 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				Habitat/Vegetation Stressors											
Fill bubble if present - Plot	1	2	3	Flag	Fill bubble if present - Plot	1	2	3	Flag	Fill bubble if present - Plot	1	2	3	Flag	
Oil Drilling	<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 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

2428168304

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

Reviewed by (initials):

**Site ID:** PCAP SC 1406

DATE: 08 / 22 / 20 13

**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="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)

2

Latitude North 41.40869

#### Longitude West

81-42077

**Use Decimal Degrees: NAD83**

Flag	Comments
1	Metroparks property ends approx. 15 m south of plot.
2	GPS point taken at property line.

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

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

Site ID:

PCAP SC 1400

DATE: 08/22/2013

Location:

O AA Center O N O S O E O W

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

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

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

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

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

Flag codes: K = No measurement made, U = Suspect measurement. F1,F2, etc. = misc. flags assigned by each field crew.

Explain all flags in comment section on the back of this form

2428168304

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

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

Site ID: PCAP SC 1400

DATE: 08 / 22 / 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="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):**

### Flag

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

Latitude North 41.40899      Longitude West 081.42217

**Use Decimal Degrees: NAD83**