

CLEVELAND METROPARKS Plant Community Assessment Program: Quality Control Form



Project Label:

PCAP

Plot No: 1351

Date Sampled: 7-17-13

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 type="radio"/>	N <input checked="" type="radio"/>	NONE
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"/>	
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"/>	
Common equipment returned to tub.	Y <input checked="" type="radio"/>	N <input type="radio"/>	
Data sheets scanned?	7/19/13		Enter date to left
Final data sheets scanned?			Enter date to left
Buffer Widths measured?	Y <input checked="" type="radio"/>	N <input type="radio"/>	BB 6-28-13
Web Soil Survey	Y <input checked="" type="radio"/>	N <input type="radio"/>	BB 8-2-13
Voucher Location	Refrigerator	Y <input checked="" type="radio"/>	N <input type="radio"/>
(# vouchers collected)	Press (#)	Enter number to left	
ACL 091	Drier	Y <input type="radio"/>	N <input checked="" type="radio"/>
ACL 092	Identified	Y <input type="radio"/>	N <input checked="" type="radio"/>
	Mounted	Y <input type="radio"/>	N <input checked="" type="radio"/>
	Thrown away	Y <input type="radio"/>	N <input checked="" 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

Minimum required fields in Bold and Underlined

1aCM PCAP Background Data Sheet Page 1_ver 3.0.xls last revised 5/29/2012 ceht

CLEVELAND METROPARKS Plant Community Assessment Program - Background Data Sheet

Project Label: PCAP

Project Name: 01 Be 2013

Plot No.: 1351

Page 2 of 2



MODIFIED NATURESERVE CLASS*

CODE (on separate form): **D**

COMMUNITY NAME:

Mixed Forest

HOMOGENEITY

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

HYDROLOGIC REGIME*

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

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

and Jack-in-the-Pulpit were two noted species. There were numerous tulip, oak, and maple seedlings. Deer browse was significant.

DISTURBANCES				
type*	severity**	yrs ago	% of plot	description
Human	L	0	100%	trash
Natural				
Fire				
Cut				
Animal	H	0	100%	browse
Other				

**L=low, M=med low, M=med, MH=med high, H=high, VH=very high

Current Land Use: **Park**

Former Land Use: **Unknown**

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

Project Label: PCAP

Project name: 01 Be 2013

Page 1 of 2

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

Estimate for each
Intensive module:

	mod	corner																						
depth	2	4	2	2	3	4	3	2	8	4	8	2	9	4	9	2	R	R						
cov	0	0	1	0	0	1	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0
depth	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
cov	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2
%unvegetated open water	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2
%unveg. ground (bare soil)	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2
%unveg. litter (bare litter)	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2

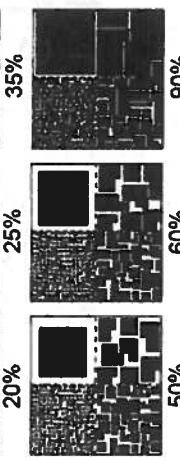
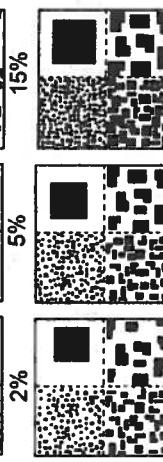
%unveg. ground (bare soil)

%unveg. litter (bare litter)

T	S	H	(F)	(A)	Br	Species	c	Voucher #	depth	cov	depth												
8						<i>Acer rubrum</i>	4	8	4	4	9	4	4	8	3	4	8	3	4	8	3	4	6
6						<i>Quercus alba</i>	4	8	4	4	5	4	4	5	3	4	5	3	4	5	3	4	5
1						<i>Fraxinus sp. seedling</i>	3	2	4	3	2	4	3	2	3	4	3	2	2	2	2	2	2
4						<i>Arisaema triphyllum</i> ^{not triphyllum}	2	2	3	2	2	3	2	2	3	4	3	2	2	2	2	2	2
5						<i>Crataegus sp.</i>	2	2	3	2	2	3	2	2	3	4	3	2	2	2	2	2	2
3						<i>Prunus #t</i> ^{size 3-15} <i>Glauca striata</i>	2	2	3	2	2	3	2	2	3	1	1	2	2	2	2	2	
5						<i>Parthenocissus quinquefolia</i>	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
7						<i>Quercus sp. seedling</i>	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
4						<i>Acer sp. seedling</i>	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
1						<i>Libiodendron tulipifera</i>	2	6	4	2	7	3	4	8	4	2	2	2	2	2	2	2	2
4						<i>Vitis sp.</i>	4	4	2	3	5	4	3	5	4	3	4	5	2	4	5	2	4
5						<i>Betula sp. thunbergii</i>	4	4	1	5	4	4	1	5	4	4	2	1	2	1	2	1	2
8						<i>Alliaria petiolata</i>	3	2	1	2	1	2	1	2	1	3	1	2	1	2	1	2	1
8						<i>Prunus sp. seedling</i>	3	1	2	1	2	1	2	1	2	1	3	1	2	1	2	1	2
4						<i>Prunus serotina</i>	2	5	1	5	2	5	1	5	2	5	1	5	2	5	1	5	2
3						<i>Heeria virginica</i>	3	2	5	3	2	5	3	2	5	4	3	2	3	2	4	3	
10						<i>Sinjalax rotundifolia</i>	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	
5						<i>Moss sp.</i>	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	
7						<i>Toxicodendron radicans</i>	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	
4						<i>Rosa multiflora</i>	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	
5						<i>Quercus rubra</i>	1	6	1	2	1	2	1	2	1	2	3	2	3	2	3	2	
2						<i>Caryn swanii</i>	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	
10						<i>Euonymus obvovatus</i>	CH-482	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
10						<i>Peraceae #2</i>	ACLO92	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
10						<i>Lonicera morskaia</i>	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	

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.



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

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.

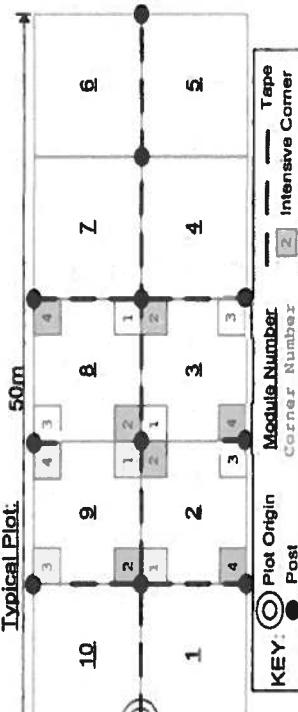
MEDIUM: browse affects greater than 10 percent and less than 25 percent of stems in the 1 m² nested quadrat and intensive module. A browse line is usually not evident or obvious for all classes and species of vegetation, but careful examination may show preferential browse and/or browse lines for some 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 m² 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.



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

Project Label: PCAP

Project name: 01_Be 2013

Page 2 of 2

Plot no.: 1351

Total modules: 10

Intensive modules: 4

Plot configuration: 2x5

Plot area (ha): .1



Cleveland
Metroparks

Br = Browse Level. Use cover classes to
describe amount of browse per species over
entire plot

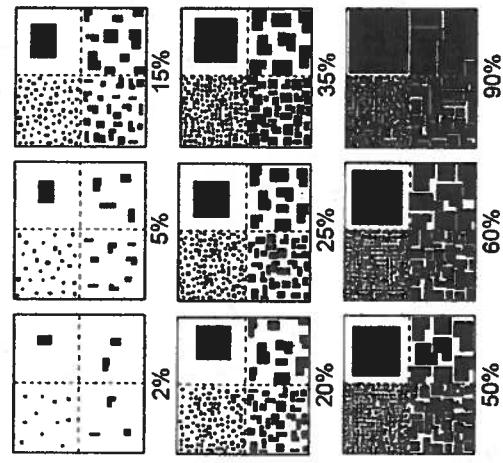
Strata - Cov. entire plot

T	S	H	(F)	(A)	Br	Species	C	Voucher #	mod	corner															
									depth	cov	depth														
6						<i>Populus tremuloides</i>	1	1	2	2	3	4	3	2	8	4	8	2	9	4	9	2	R	R	
						<i>Prunus pensylvanica</i>	1	1	4-483																
						<i>Frangula alnus</i>	1	1	2	2	3	4	3	2	8	4	8	2	9	4	9	2	R	R	
						<i>Unknown shrub</i>	1	1	4-483																
3	4					<i>Acer saccharum</i>	1	1	2	2	3	4	3	2	8	4	8	2	9	4	9	2	R	R	
						<i>Unknown dicot</i> #2	1	1	4-484																
3						<i>Carya ovata</i>	1	1	2	2	3	4	3	2	8	4	8	2	9	4	9	2	R	R	
						<i>Ulmus rubra</i>	1	1	2	2	3	4	3	2	8	4	8	2	9	4	9	2	R	R	
						<i>Dryopteris sp.</i>	1	1	2	2	3	4	3	2	8	4	8	2	9	4	9	2	R	R	
						<i>Rubus sp.</i>	1	1	2	2	3	4	3	2	8	4	8	2	9	4	9	2	R	R	
						<i>Actaea alba</i>	1	1	2	2	3	4	3	2	8	4	8	2	9	4	9	2	R	R	

Combined
10/13

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 quadrat 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.

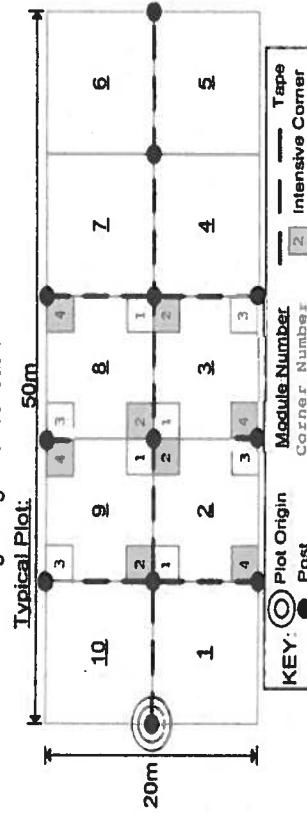
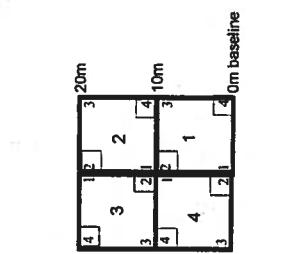
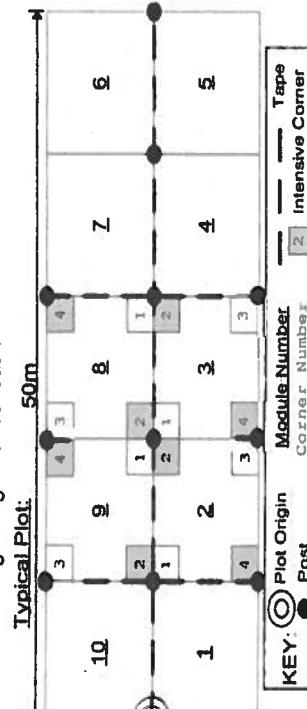
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HIGH: greater than 25 percent of the stems of plants in the 1 m² nested quadrat and intensive module **AND** a browse line is evident.

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.



CLEVELAND METROPARKS Plant Community Assessment Program Natural Woody Stem Data Sheet

Project Label: PCAP

Project Name: OLRB 2013

Plot No.: 1351

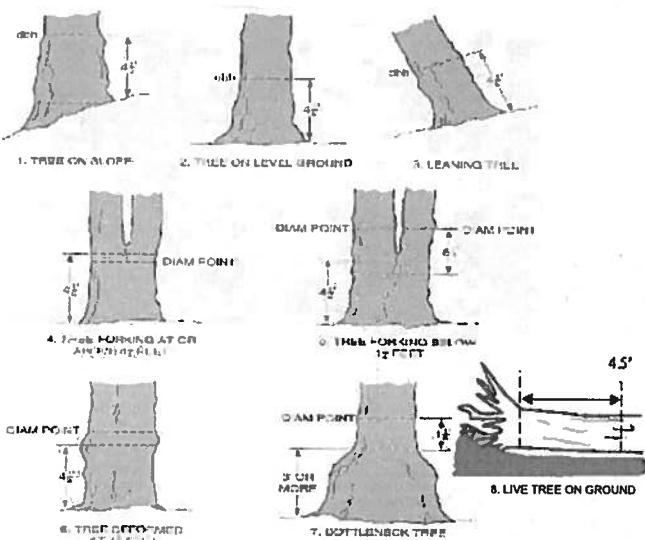
Page: 1 of 3

 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	
1	<i>Styrax obassia</i>																
1	<i>Acer nigrum</i>																
1	<i>Dubius alba</i>																
1	<i>Carica papaya</i>																
1	<i>Berberis thunbergii</i>																
1	<i>Euonymus alatus</i>																
2	<i>Acer rubrum</i>																
2	<i>Rubus sp.</i>																
2	<i>Berberis thunbergii</i>																
2	<i>Quercus alba</i>																
2	<i>Lonicera maackii</i>																
2	<i>Prunus serrulata</i>																
2	<i>Styrax obassia</i>																
2	<i>Koelreuteria paniculata</i>																
2	<i>Smilax rotundifolia</i>																
2	<i>Parthenocissus quinquefolia</i>																
2	<i>Toxicodendron radicans</i>																
3	<i>Liriodendron tulipifera</i>																
3	<i>Styrax obassia</i>																
3	<i>Acer rubrum</i>																
3	<i>Prunus serrulata</i>																
3	<i>Fraxinus sp.</i>																
4	<i>Styrax obassia</i>																
4	<i>Liriodendron tulipifera</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)

- 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: 01 Be 2013

Plot No.: 1351

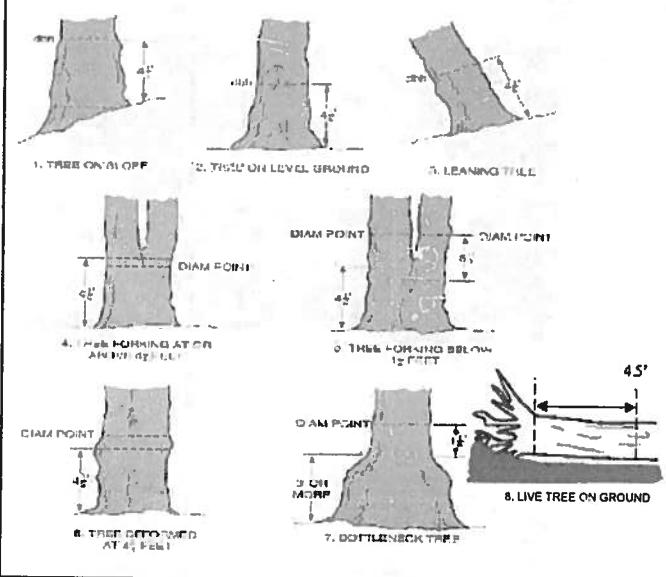
Page: 2 of 3

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	
4	<i>Acer rubrum</i>									•	•	•	•	•	•	•	
4	<i>Acer saccharum</i>																
5	Standing dead									•							
5	<i>Acer rubrum</i>																
5	<i>Liriodendron tulipifera</i>																
5	<i>Fraxinus</i> sp.																
6	<i>Acer rubrum</i>																
6	<i>Liriodendron tulipifera</i>																
6	Standing dead																
7	<i>Liriodendron tulipifera</i>																
7	Standing dead																
7	<i>Acer rubrum</i> <small>SAF 9-10-13</small>																
7	<i>Juglans nigra</i> <small>Robinia pseudoacacia</small>																
8	<i>Acer rubrum</i>																
8	Standing dead																
8	<i>Liquidambar styraciflua</i>																
8	<i>Prunus pensylvanica</i>																
8	<i>Berberis thunbergii</i>																
8	<i>Rubus</i> sp.																
9	<i>Euonymus oblongus</i>																
9	<i>Crataegus</i> sp. <small>Red</small>																
9	<i>Prunus nigra</i> <small>Red</small>																
9	<i>Berberis thunbergii</i>																
9	<i>Acer rubrum</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: 01 Be2013

Plot No.: 1351

Page: 3 of 3

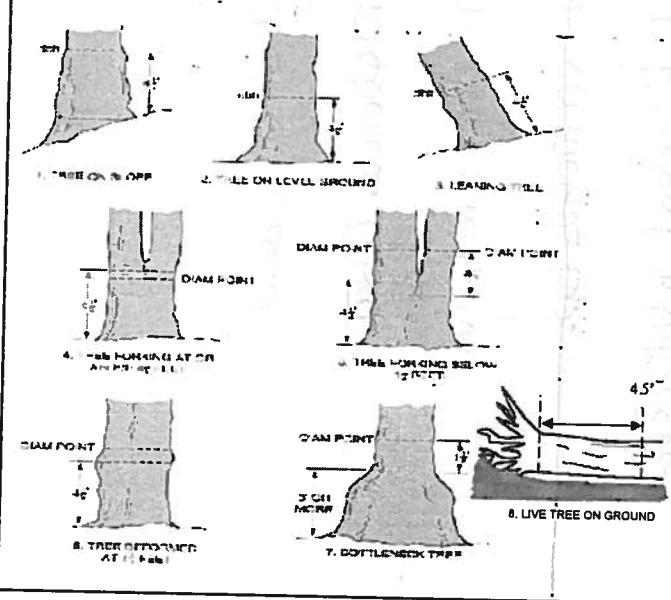


Explain subsample (additional room on back):

mod #	species	c	voucher#	browsed	sample	# stems 0-1.4m or super 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					1											11
9	Standing dead					2											
9	Rubus sp.		6			3											
10	Quercus rubra					4											
10	Berberis thunbergii					5											
10	Acer saccharum					6											
10	Spurting dead					7											
10	Cotoneaster sp.					8											
10	Acer spicatum					9											
10	Liquidambar tulipifera					10											
10	Cretaceus sp.					11											
9	Frangula alnus					12											
						13											
						14											
						15											
						16											
						17											
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						98											
						99											
						100											

47.9, 47.4, 43.3

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: DL Be 2013

INTENSIVE MODULES ONLY TREES $\geq 10\text{cm}$ ONLY

Page: 1 of 2



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

*** Change intensive module numbers when necessary

Baseline

9

8

2

3

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 $1.25\text{m}^2 \times \geq 1.5\text{m}$
- Woodpecker and epicormic marked present (1) or absent (0)

Tier 1: Early detection/ Rapid Response		Presence			GPS		
# of Plants	Microstegium vimineum	Japanese stiltgrass	NE	SE	SW	NW	Comments
1: 1-10	Ranunculus ficaria	Lesser Celandine					
2: 11-50.	Cyperus rotundus	Black Sallow-wort					
3: 51-100	Lonicera japonica	Tree of Heaven					
4: 101-1,000	Lythrum salicaria	Japanese Honeysuckle	2				
5: >1,000	Aegopodium podagraria	(G-cover)					
1: 1-10	Ailanthus altissima	Norway Maple					
2: 11-50.	Lonicera caprifolium	Tree of Heaven					
3: 51-100	Lythrum salicaria	(Vine)					
4: 101-1,000	Aegopodium podagraria	(G-cover)					
5: >1,000	Celastrus orbiculatus	(Vine)					
1: 1-10	Trollius sp.	Hedge-parsley					
2: 11-50.	Conium maculatum	Poison Hemlock					
3: 51-100	Rhamnus cathartica	Common Buckthorn					
4: 101-1,000	Berberis thunbergii	Japanese Barberry	2	2	2		
5: >1,000	Alnus glutinosa	European Alder					
1: 1-10	Dipsacus laciniatus	Cut-leaf Teasel					
2: 11-50.	Elaeagnus umbellata	Autumn Olive					
3: 51-100	Lonicera maackii	Amur Honeysuckle					
4: 101-1,000	Euonymus fortunei	Winter Creepers	1				
5: >1,000	Convallaria majalis	Lily of the Valley					
1: 1-10	Coronilla varia	(G-cover)					
2: 11-50.	Eleutherococcus pentaphyllus	Crown Vetch					
3: 51-100	Pachysandra terminalis	(G-cover)					
4: 101-1,000	Pulmonaria officinalis	Mock Orange					
5: >1,000	Rubus phoenicolasius	Lungwort					
1: 1-10	Rubus phoenicolasius	Wineberry					
2: 11-50.	Iris pseudacorus	Yellow Flag Iris					
3: 51-100	Orytogaia umbellatum	Star of Bethlehem					
4: 101-1,000	Viburnum opulus var. opulus	European Cranberry					
5: >1,000	Viburnum plicatum	Doublefile Viburnum					
1: 1-10	Alliaria petiolata	Garlic Mustard	3	2	1		
2: 11-50.	Ligustrum vulgare	Common Privet					
3: 51-100	L. morrowii, L. tatarica	Bush Honeysuckles					
4: 101-1,000	Phalaris arundinacea	Reed Canarygrass					
5: >1,000	Phragmites australis	Phragmites					
1: 1-10	Polygonum cuspidatum	Japanese Knotweed					
2: 11-50.	Fragaria ananassa	Catskill (wetland)	1	3	1	1	
3: 51-100	Rosa multiflora	Glossy Buckthorn					
4: 101-1,000	Rosa multiflora	Multiflora Rose					
5: >1,000	Typha angustifolia, T. x. glauca	Cattails (wetland)					
1: 1-10	Cirsium arvense	Canada Thistle					
2: 11-50.	Dipsacus fullonum	Common Teasel					
3: 51-100	Heuchera sanguinea	Dame's Rocket					
4: 101-1,000	Vinca minor	Periwinkle					
5: >1,000	X: Yes						

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

Project Label: PCAP

Project Name: DLBe2013

Plot No.: 1351

STANDING BIOMASS (required for emergent wetland); collected in 0.1m clip plots (32x32 cm) from corners 1 and 3 in each intensive module. Required for VIB-E score calculation. C? = check when collected

Module #	C?	Corner	Corner

C?

Required for VIB-E score calculation. C? = check when collected

(EFT = excellent & Fit and Confidence

IMPOUNDMENT □ Beaver □ Human

RIVERINE □ Headwater □ Mainstem □ Channel

SLOPE (ground water hydrology or on a phys. visual slope)

FRINGING □ Reservoir □ Natural Lake

COASTAL (specify subclass)

BOG (strongly, moderately, weakly, anabiotic/epic)

Ohio EPA VIB Plant Community Class (WETLANDS ONLY):

FOREST □ swamp forest □ bog forest □ forest swamp

EMERGENT □ marsh □ wet meadow □ open bog

SHRUB □ shrub swamp □ tall sh. bog □ tall sh. fen

MICROTOPOGRAPHIC FEATURE COUNTS - Intensive modules only

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

Slope 1 = slight elevation grade across module (H)

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, of low quality

7 feature is present in moderate amounts, but not of highest quality, or in small amounts of highest quality

10 feature is present in moderate or greater amounts and of highest quality

C.W.D. - count for pieces with minimum 1m length						
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.
depth 3	uplands (TIp-Tips)	depth 2	depth 1	depth 1	depth 1	microhab
1x1m	3.16x3.16m	10x10m	10x10m	10x10m	10x10m	slope
mod#	corner	(count)	(count)	(count)	(count)	(rank)
2	Ø	25	4	Ø	2	1
3	Ø	24	Ø	Ø	2	1
8	Ø	41	3	Ø	2	1
9	Ø	47	3	Ø	2	1

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

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

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

Module	N	S	E	W
2	20	12	15	20
3	12	13	10	4
8	6	9	9	14
9	13	2	12	7

LFI is angle of horizon. TSI is angles formed by local slopes. For TSI measure angle from recorders eye to e.g. of person standing ~10 m away.

LFI is angle of horizon. TSI is angles formed by local slopes. For TSI measure angle from recorders eye to e.g. of person standing ~10 m away.

* Landform index (position within landscape)

** Terrain Shape Index (site microtopographic shape)

CROWN COVER (DENSIOMETER) Make 4 readings per module facing N, S, E, W. Place dot count in corresponding space. (4 dots per grid square)				
Module	N	S	E	W
2	20	12	15	20
3	12	13	10	4
8	6	9	9	14
9	13	2	12	7

LFI is angle of horizon. TSI is angles formed by local slopes. For TSI measure angle from recorders eye to e.g. of person standing ~10 m away.

* Landform index (position within landscape)

** Terrain Shape Index (site microtopographic shape)

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.

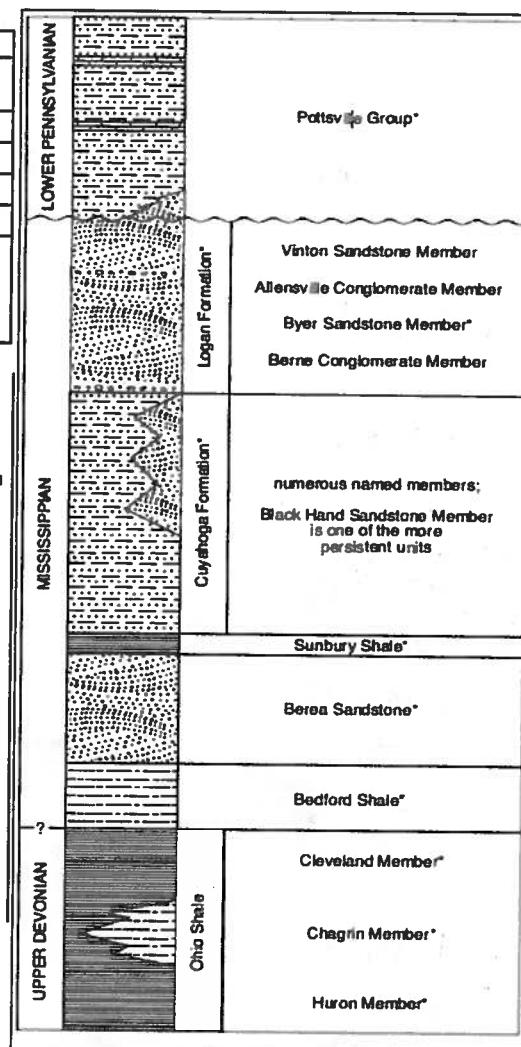
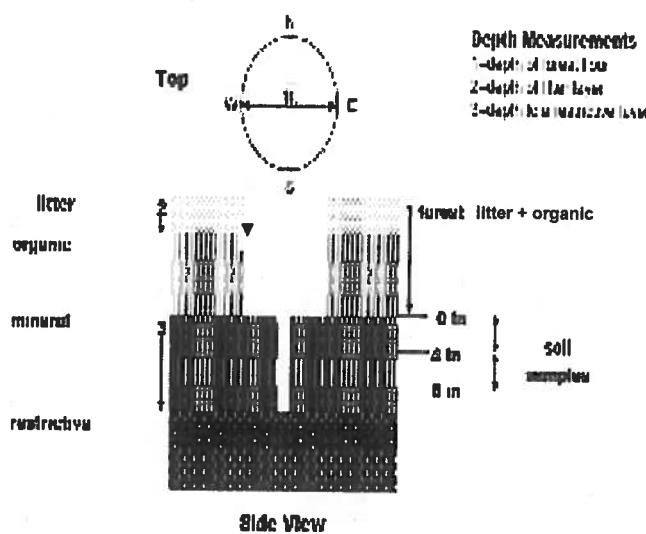


FIGURE 3-20.—Generalized section of Upper Devonian, Mississippian, and Lower Pennsylvanian formations in northeastern Ohio. Asterisks indicate units that are fossiliferous. This composite section represents about 400 meters of rock exposed across the area. The section is not to scale, but the thicknesses 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.

SOL 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 # 2 (one per entire plot)	
5 cm	matrix color 10YR3/3
moisture color	10R2
%moisture	0
oxidants	Y
texture*	1
redox features**	Y
hydr. cond.***	1 S M D
matrix color	10YR3/3
moisture color	10R2
%moisture	0
oxidants	Y
texture*	1
redox features**	Y
hydr. cond.***	1 S M D

Soil Collection Module/Horizon (A, B, C)	
	A
2.2.3.9 composted	
Web Soil Survey Information:	
Soil Series/Type:	EIC - Elkhorn Silty loam
Soil Series Source:	Ohio Soil Survey
Landform type:	Bluff, ravines, end moraines
Depth to rest. Layer:	80+ inches
Parent Material:	Till
DRAINAGE:	
<input type="checkbox"/> Excessively dr.	<input type="checkbox"/> Somewhat excessively
<input type="checkbox"/> Well drained	<input checked="" type="checkbox"/> Moderately well dr.
<input type="checkbox"/> Somewhat poorly dr.	<input type="checkbox"/> Very poorly dr.
<input type="checkbox"/> Impenetrable surface	
Soil Depth Measurement:	BB 8/2/13

EARTH SURFACE & GROUND COVER	
Underlying Earth Surface*	Ground Cover
(Sum = 100%)	(Each ≤ 00%)
Histosol	0% percent
Mineral Soil	100% percent
Gravel-Cobble*	0% percent
Boulder**	0% percent
Bedrock	0% percent
*Gravel-Cobble = 1/16-1"	Water
**Boulder = > 10 in.	Barren Soil
***>5 cm in diameter	Road/Trail
Outer	0% percent

STAND SIZE	
<input type="checkbox"/> >600 x plot size	
<input type="checkbox"/> > 100 x plot size	
<input checked="" type="checkbox"/> 10-100 x plot size	
<input type="checkbox"/> 3-10 x plot size	
<input type="checkbox"/> 1-3 x plot size	
<input type="checkbox"/> < plot size	

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	13%
Herb	0 - 0.5	8%
(Floating)* (Aquatic)*	-	-

SOIL DEPTH MEASUREMENT: Measure to the nearest 0.1 cm in center of intensive modules. If >30.5 cm, record as >30				
mod#	1 liter† organic depth (cm)	2 liter water depth (cm)	depth sat soil (cm)	
2	2.6	0	>30	
3	1.5	0	>30	
4	0.5	0	>30	
5	0.5	0	>30	

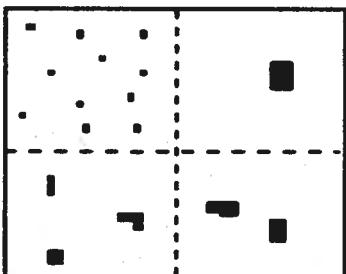
*rooted and floating or slightly emersed

†submersed, most plant mass below surface

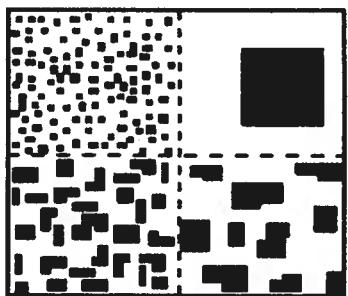
SEE BACK OF PAGE FOR 'TYPICAL' STRATA DESCRIPTIONS. STRATA CAN VARY BY COVER TYPE.

PERCENT MOTTLES (USE CLASS CODES):

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



2%



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

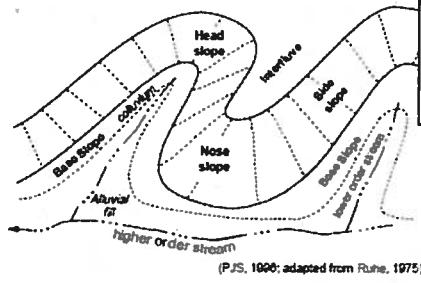
3= Sandy

4= Coarse Sand

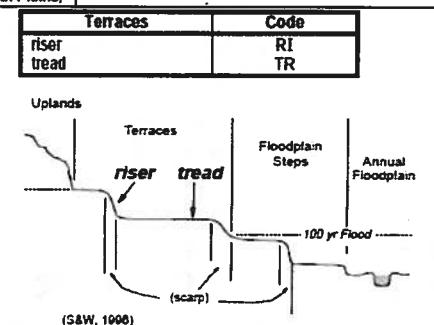
9= Not measured - make plot note

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

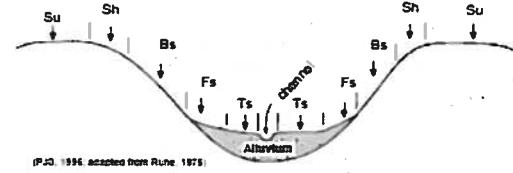


(PJS, 1990; adapted from Rufe, 1975)



Hillslope - Profile Position (Hillslope Position in PDP) - Two-dimensional descriptors of parts of line segments (i.e., slope segments) 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



(PJS, 1990; adapted from Rufe, 1975)

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 Be 1351

DATE: 07/17/2013

Location:

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

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

Residential and Urban Stressors				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	1	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/Spill 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	2	2	
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

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

Reviewed by (Initial): _____

Site ID: PCAP Be 3/351

DATE: 07/17/2013

● 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):

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

Flag

1

Latitude North

41.37231

Longitude West

081.54.663

Use Decimal Degrees; NAD83

Flag	Comments
1	Property line of Clele Motroparks - road, covered 20 out of 45m in Buffer plot 3
2	mowing done @ edge of road

FORM B-1: BUFFER SAMPLE PLOTS (Front)

Reviewed by (Initial): _____

Site ID: PCAP BE 1351

DATE: 07/17/2013

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 →			
	<input type="radio"/> Plot 1	<input type="radio"/> Plot 2	<input type="radio"/> 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"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4		<input type="radio"/>	Big Trees (>0.3m DBH)	<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input checked="" type="radio"/> 3 <input type="radio"/> 4		<input type="radio"/>	Big Trees (>0.3m DBH)	<input checked="" type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4		<input type="radio"/>
Small Trees (<0.3m DBH)	<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4		<input type="radio"/>	Small Trees (<0.3m DBH)	<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4		<input type="radio"/>	Small Trees (<0.3m DBH)	<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4		<input type="radio"/>
Woody Shrubs, Saplings (0.5m-5m HIGH)	<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4		<input type="radio"/>	Woody Shrubs, Saplings (0.5m-5m HIGH)	<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4		<input type="radio"/>	Woody Shrubs, Saplings (0.5m-5m HIGH)	<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4		<input type="radio"/>
Woody Shrubs, Saplings (<0.5m HIGH)	<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4		<input type="radio"/>	Woody Shrubs, Saplings (<0.5m HIGH)	<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4		<input type="radio"/>	Woody Shrubs, Saplings (<0.5m HIGH)	<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4		<input type="radio"/>
Herbs, Forbs and Grasses	<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4		<input type="radio"/>	Herbs, Forbs and Grasses	<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4		<input type="radio"/>	Herbs, Forbs and Grasses	<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4		<input type="radio"/>
Bare ground	<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4		<input type="radio"/>	Bare ground	<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4		<input type="radio"/>	Bare ground	<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4		<input type="radio"/>
Litter, duff	<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4		<input type="radio"/>	Litter, duff	<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4		<input type="radio"/>	Litter, duff	<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4		<input type="radio"/>
Rock	<input checked="" type="radio"/> 4 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4		<input type="radio"/>	Rock	<input checked="" type="radio"/> 4 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4		<input type="radio"/>	Rock	<input checked="" type="radio"/> 4 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4		<input type="radio"/>
Water	<input checked="" type="radio"/> 4 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4		<input type="radio"/>	Water	<input checked="" type="radio"/> 4 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4		<input type="radio"/>	Water	<input checked="" type="radio"/> 4 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4		<input type="radio"/>
Submerged Vegetation	<input checked="" type="radio"/> 4 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4		<input type="radio"/>	Submerged Vegetation	<input checked="" type="radio"/> 4 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4		<input type="radio"/>	Submerged Vegetation	<input checked="" type="radio"/> 4 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4		<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"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4				Ditches, Channelization	<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4				Pasture/Hay	<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4				
Road - two lane	<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4	<input checked="" type="radio"/> 2			Dike/Dam/Road/RR Bed (IMPEDE FLOW)	<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4				Range	<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4				
Road - four lane	<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4				Water Level Control Structure	<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4				Row Crops	<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4				
Parking Lot/Pavement	<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4				Excavation, Dredging	<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4				Fallow Field (RECENT-RESTING ROW CROP FIELD)	<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4				
Golf Course	<input checked="" type="radio"/> 4 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4	<input checked="" type="radio"/> 1			Fill/Spoil Banks	<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4				Fallow Field (OLD - GRASS, SHRUBS, TREES)	<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4				
Lawn/Park	<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4				Freshly Deposited Sediment (UNVEGETATED)	<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4				Nursery	<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4				
Suburban Residential	<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4				Soil Loss/Root Exposure	<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4				Dairy	<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4				
Urban/Multifamily	<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4				Wall/Riprap	<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4				Orchard	<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4				
Landfill	<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4				Inlets, Outlets	<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4				Confined Animal Feeding	<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4				
Dumping	<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4				Point Source/Pipe (EFFLUENT OR STORMWATER)	<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4				Rural Residential	<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4				
Trash	<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4				Impervious surface Input (SHEETFLOW)	<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4				Gravel Pit	<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4				
Other: _____	<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4				Other: _____	<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4				Irrigation	<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4				
Other: _____	<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4				Other: _____	<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4				Other: _____	<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4				

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"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4				Forest Clear Cut	<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4				Herbicide Use	<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4				
Gas Wells	<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4				Forest Selective Cut	<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4				Mowing/Shrub Cutting	<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4				
Mine (surface)	<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4				Tree Plantation	<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4				Trails	<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4				
Mine (underground)	<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4				Tree Canopy Herbivory (INSECT)	<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4				Soil Compaction (ANIMAL OR HUMAN)	<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4				
Military	<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4				Shrub Layer Browsed (WILD OR DOMESTIC)	<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4				Offroad vehicle damage	<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4				
Other: _____	<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4				Highly Grazed Grasses (OVERALL <3" HIGH)	<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4				Soil erosion (FROM WIND, WATER, OR OVERUSE)	<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4				
Other: _____	<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4				Recently Burned Forest Canopy	<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4				Other: _____	<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4				
Other: _____	<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4				Recently Burned Grassland (BLACKENED)	<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4				Other: _____	<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4				

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 Be #1351

DATE: 07/17/2013

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):

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

Flag

2

Latitude North 41.37333 Longitude West 081.54501
Use Decimal Degrees; NAD83

Flag	Comments
1	Shawnee Hills Golf course visible from buffer plots, but does not fall into buffer
2	Buffer Plot 3 ends @ CMP property @ road - 35 out of 45m covered.

FORM B-1: BUFFER SAMPLE PLOTS (Front)

Reviewed by (Initial): _____

Site ID: PCAP Be 1351

DATE: 07/17/2013

Location:

O AA Center N OS OE OW

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

O Plot 1 O Plot 2 O Plot 3

1

Buffer Natural Cover Strata

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

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

Buffer Plot 1	Canopy Type: 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		0 1 2 3 4	0 1 2 3 4		0 1 2 3 4		0 1 2 3 4	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	0 1 2 3 4		0 1 2 3 4		0 1 2 3 4	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	0 1 2 3 4		0 1 2 3 4		0 1 2 3 4	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	0 1 2 3 4		0 1 2 3 4		0 1 2 3 4	0 1 2 3 4		0 1 2 3 4
Herbs, Forbs and Grasses	0 1 2 3 4		0 1 2 3 4	0 1 2 3 4		0 1 2 3 4		0 1 2 3 4	0 1 2 3 4		0 1 2 3 4
Bare ground	0 1 2 3 4		0 1 2 3 4	0 1 2 3 4		0 1 2 3 4		0 1 2 3 4	0 1 2 3 4		0 1 2 3 4
Litter, duff	0 1 2 3 4		0 1 2 3 4	0 1 2 3 4		0 1 2 3 4		0 1 2 3 4	0 1 2 3 4		0 1 2 3 4
Rock	0 1 2 3 4		0 1 2 3 4	0 1 2 3 4		0 1 2 3 4		0 1 2 3 4	0 1 2 3 4		0 1 2 3 4
Water	0 1 2 3 4		0 1 2 3 4	0 1 2 3 4		0 1 2 3 4		0 1 2 3 4	0 1 2 3 4		0 1 2 3 4
Submerged Vegetation	0 1 2 3 4		0 1 2 3 4	0 1 2 3 4		0 1 2 3 4		0 1 2 3 4	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. 2

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 1 2 3 4				Ditches, Channelization	0 1 2 3 4				Pasture/Hay	0 1 2 3 4			
Road - two lane	0 1 2 3 4				Dike/Dam/Road/RR Bed (IMPEDE FLOW)	0 1 2 3 4				Range	0 1 2 3 4			
Road - four lane	0 1 2 3 4				Water Level Control Structure	0 1 2 3 4				Row Crops	0 1 2 3 4			
Parking Lot/Pavement	0 1 2 3 4				Excavation, Dredging	0 1 2 3 4				Fallow Field (RECENT-RESTING ROW CROP FIELD)	0 1 2 3 4			
Golf Course	0 1 2 3 4	2			Fill/Spill Banks	0 1 2 3 4				Fallow Field (OLD - GRASS, SHRUBS, TREES)	0 1 2 3 4			
Lawn/Park	0 1 2 3 4				Freshly Deposited Sediment (UNVEGETATED)	0 1 2 3 4				Nursery	0 1 2 3 4			
Suburban Residential	0 1 2 3 4				Soil Loss/Root Exposure	0 1 2 3 4				Dairy	0 1 2 3 4			
Urban/Multifamily	0 1 2 3 4				Wall/Riprap	0 1 2 3 4				Orchard	0 1 2 3 4			
Landfill	0 1 2 3 4				Inlets, Outlets	0 1 2 3 4				Confined Animal Feeding	0 1 2 3 4			
Dumping	0 1 2 3 4				Point Source/Pipe (EFFLUENT OR STORMWATER)	0 1 2 3 4				Rural Residential	0 1 2 3 4			
Trash	0 1 2 3 4				Impervious surface input (SHEETFLOW)	0 1 2 3 4				Gravel Pit	0 1 2 3 4			
Other: _____	0 1 2 3 4				Other: _____	0 1 2 3 4				Irrigation	0 1 2 3 4			
Other: _____	0 1 2 3 4				Other: _____	0 1 2 3 4				Other: _____	0 1 2 3 4			

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 1 2 3 4				Forest Clear Cut	0 1 2 3 4				Herbicide Use	0 1 2 3 4			
Gas Wells	0 1 2 3 4				Forest Selective Cut	0 1 2 3 4				Mowing/Shrub Cutting	0 1 2 3 4			
Mine (surface)	0 1 2 3 4				Tree Plantation	0 1 2 3 4				Trails	0 1 2 3 4			
Mine (underground)	0 1 2 3 4				Tree Canopy Herbivory (INSECT)	0 1 2 3 4				Soil Compaction (ANIMAL OR HUMAN)	0 1 2 3 4			
Military	0 1 2 3 4				Shrub Layer Browsed (WILD OR DOMESTIC)	0 1 2 3 4				Offroad vehicle damage	0 1 2 3 4			
Other: _____	0 1 2 3 4				Highly Grazed Grasses (OVERALL <3" HIGH)	0 1 2 3 4				Soil erosion (FROM WIND, WATER, OR OVERUSE)	0 1 2 3 4			
Other: _____	0 1 2 3 4				Recently Burned Forest Canopy	0 1 2 3 4				Other: _____	0 1 2 3 4			
Other: _____	0 1 2 3 4				Recently Burned Grassland (BLACKENED)	0 1 2 3 4				Other: _____	0 1 2 3 4			

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

NE BB GM

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

Reviewed by (Initial): _____

Site ID: PCAP Be 1351

DATE: 07 / 17 / 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 checked="" 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)

3

Latitude North 41.37405 Longitude West -81.54594

Use Decimal Degrees: NAD83

Flag	Comments
1	N3 falls on Shawnee Hills Golf Course
2	N2 is on the edge of Shawnee Hills G.C.
3	Taken from the edge of Shawnee Hills G.C.

FORM B-1: BUFFER SAMPLE PLOTS (Front)

Reviewed by (Initial): _____

Site ID: PCAP Be 1351

DATE: 07/17/2013

Location:

● 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		Absent: 0		Buffer Plot 2	Canopy Type: D		Absent: 0		Buffer Plot 3	Canopy Type: D		Absent: 0				
	Leaf Type: B	Leaf Type: N	Flag	Leaf Type: B	Leaf Type: N	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	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 - 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	1	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 Be 1351

DATE: 07 / 17 / 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

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

Latitude North 41 373 18 Longitude West 81 5466 7
Use Decimal Degrees: NAD83

Use Decimal Degrees; NAD83

FORM B-1: BUFFER SAMPLE PLOTS (Front)

Reviewed by (Initial): _____

Site ID: PCAP Be 1351

DATE: 07 / 17 / 2013

Location:	Fill in bubble(s) if plot(s) could not be sampled and flag →									
○ AA Center ○ N ○ S ○ E ○ W	○ 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				Leaf Type: <input checked="" type="radio"/> B <input type="radio"/> N				Leaf Type: <input checked="" type="radio"/> B <input type="radio"/> N		
Big Trees (>0.3m DBH)	<input 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 type="radio"/>	<input type="radio"/>	<input type="radio"/>
Small Trees (<0.3m DBH)	<input type="radio"/>	<input type="radio"/>	<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"/>
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 type="radio"/>	<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"/>
Herbs, Forbs and Grasses	<input type="radio"/>	<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"/>
Bare ground	<input type="radio"/>	<input type="radio"/>	<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"/>
Litter, duff	<input type="radio"/>	<input type="radio"/>	<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"/>
Rock	<input type="radio"/>	<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"/>
Water	<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"/>
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"/>
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 checked="" 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 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

2428168304

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

Reviewed by (Initials): _____

Site ID: PCAP Be 1351

DATE: 87 / 17 / 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

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

Latitude North 41.37321 Longitude West 81.54787

Use Decimal Degrees; NAD83