

# Appendix B

## Field Notes

- B1. Ecological Land Classification (ELC), Vascular Plant Inventory & Incidental Wildlife**
- B2. Breeding Bird Surveys**
- B3. Amphibian Call Surveys**
- B4. Site Investigation Addendum**
- B5. Winter Raptor Surveys**

**B1. Ecological Land Classification  
(ELC), Vascular Plant Inventory  
& Incidental Wildlife**

**Bluewater Feature: 426\_BLW1813**

(Additional properties may be reviewed due to changes in the Collection & Road layout)



October 17, 2011



- Roads
- Access/Exclosure Line
- Survey to be Completed
- Turbine Buffer (17.5m)

- ELC Survey Completed
- Turbine Buffer/PSA as Intersect
- Property Fences
- Bluewater Wind Energy Corridor



Leased

Fence line survey of area

NO ACCESS

SND3

Bluewater



BLW 426

VASCULAR PLANT CHECKSHEET

Location:

Date: Oct 19, 2011

Observer: JDITS

Job Number:

DICOT HERBS													MONOCOT HERBS							
	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6		
<i>Chilisa mifolifolia</i>							<i>Erigeron annuus</i>							<i>Plantago lanceolata</i>						
<i>Chilisa pachyphloia</i>							<i>Erigeron philadelphicus</i>							<i>Plantago major</i>						
<i>Achillea millefolium</i>							<i>Erigeron strigosus</i>							<i>Plantago rugellii</i>						
<i>Achillea millefolium</i>							<i>Erysimum ciferrioides</i>							<i>Podophyllum peltatum</i>						
<i>Achillea millefolium</i>							<i>Eupatorium maculatum</i>							<i>Polygonum</i>						
<i>Achillea millefolium</i>							<i>Eupatorium perfoliatum</i>							<i>Polygonum</i>						
<i>Achillea millefolium</i>							<i>Eupatorium rugosum</i>							<i>Polygonum lapathifolium</i>						
<i>Achillea millefolium</i>							<i>Euphorbia</i>							<i>Polygonum perfoliatum</i>						
<i>Achillea millefolium</i>							<i>Euthamia graminifolia</i>							<i>Potamogeton</i>						
<i>Achillea millefolium</i>							<i>Fraxinea virginiana</i>							<i>Potamogeton</i>						
<i>Achillea millefolium</i>							<i>Fraxinea vesca</i>							<i>Potamogeton</i>						
<i>Achillea millefolium</i>							<i>Galopisia tetrahit</i>							<i>Potamogeton</i>						
<i>Achillea millefolium</i>							<i>Galium</i>							<i>Potamogeton</i>						
<i>Achillea millefolium</i>							<i>Galium pedunculatum</i>							<i>Potamogeton</i>						
<i>Achillea millefolium</i>							<i>Galium triflorum</i>							<i>Potamogeton</i>						
<i>Achillea millefolium</i>							<i>Geranium maculatum</i>							<i>Potamogeton</i>						
<i>Achillea millefolium</i>							<i>Geranium robertianum</i>							<i>Potamogeton</i>						
<i>Achillea millefolium</i>							<i>Geum aleppicum</i>							<i>Potamogeton</i>						
<i>Achillea millefolium</i>							<i>Geum canadense</i>							<i>Potamogeton</i>						
<i>Achillea millefolium</i>							<i>Geum</i>							<i>Potamogeton</i>						
<i>Achillea millefolium</i>							<i>Glechoma hederacea</i>							<i>Potamogeton</i>						
<i>Achillea millefolium</i>							<i>Hepatica acutiloba</i>							<i>Potamogeton</i>						
<i>Achillea millefolium</i>							<i>Hesperis matronalis</i>							<i>Potamogeton</i>						
<i>Achillea millefolium</i>							<i>Hieracium aurantiacum</i>							<i>Potamogeton</i>						
<i>Achillea millefolium</i>							<i>Hieracium cicutarium</i>							<i>Potamogeton</i>						
<i>Achillea millefolium</i>							<i>Hieracium</i>							<i>Potamogeton</i>						
<i>Achillea millefolium</i>							<i>Hydrophyllum virginianum</i>							<i>Potamogeton</i>						
<i>Achillea millefolium</i>							<i>Hypochaeris perforatum</i>							<i>Potamogeton</i>						
<i>Achillea millefolium</i>							<i>Impatiens capensis</i>							<i>Potamogeton</i>						
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<i>Achillea millefolium</i>							<i>Impatiens</i>							<i>Potamogeton</i>						

1   CONFERS							TREES and SHRUBS							GRAMINOIDS						
1	2	3	4	5	6		1	2	3	4	5	6	1	2	3	4	5	6		
						+ Rosa multiflora														
Abies balsamea						Rosa							Agristis gigantea							
Juniperus communis						Rubus allegheniensis							Agrostis stolonifera							
Juniperus virginiana						Rubus idaeus				✓			Agropyron repens							
Larix laricina						Rubus occidentalis							Alopecurus							
Picea abies						Rubus odoratus							Bromus inermis							
Picea glauca						Rubus pubescens							Calamagrostis canadensis							
Pinus resinosa						Salix alba							Carex arctata							
Pinus strobus						Salix amygdaloides							Carex aurea							
Pinus sylvestris						Salix bebbiana							Carex bebbii							
Thuja occidentalis						Salix discolor							Carex blanda							
Tsuga canadensis						Salix erioccephala							Carex gracillima							
						Salix exigua							Carex granularis							
						Salix lucida							Carex hystericina							
						Salix petiolaris							Carex pennsylvanica							
						Salix purpurea							Carex radiata							
TREES and SHRUBS						Salix x rubens							Carex retrosa							
Acer negundo						Salix							Carex stipata							
Acer rubrum						Sambucus canadensis							Carex stricta							
Acer saccharinum	✓					Sambucus racemosa							Carex vulpinoidea							
Acer saccharum						Sorbus aucuparia							Carex							
Acer spicatum						Spiraea alba							Carex							
Alnus rugosa						Syringa vulgaris							Carex							
Amelanchier						Tilia americana							Carex							
Berberis thunbergii						Ulmus americana							Carex							
Betula alleghaniensis						Ulmus							Carex							
Betula papyrifera						Vaccinium							Carex							
Carpinus caroliniana						Viburnum lentago							Carex							
Carya cordiformis						Viburnum opulus							Cyperus							
Celastrus scandens						Viburnum							Cyperus							
Cornus alternifolia						Vitis riparia							Dactylis glomerata							
Cornus amomum													Danthonia spicata							
Cornus rugosa													Echinochloa crus-galli							
Cornus stolonifera													Eleocharis erythropoda							
Corylus cornuta													Eleocharis							
Crataegus monogyne													Elymus virginicus							
Crataegus punctata													Elymus							
Crataegus sp.													Festuca arundinacea							
Crataegus													Glyceria striata							
Dicentra lonicera													Glyceria							
Fagus grandifolia													Juncus dudleyi							
Fraxinus americana	✓					FERNS							Juncus effusus							
Fraxinus nigra						Adiantum pedatum							Juncus tenuis							
Fraxinus pennsylvanica						Athyrium filix-femina							Juncus							
Ilex verticillata						Botrychium multifidum							Juncus							
Juglans cinerea						Botrychium virginianum							Juncus							
Juglans nigra	✓					Cystopteris bulbifera							Leersia oryzoides							
Lonicera macrocarpa						Dryopteris caroliniana							Muhlenbergia							
Lonicera tatarica						Dryopteris cristata							Oryzopsis asperifolia							
Lonicera						Dryopteris marginalis							Panicum							
Maius pumila						Dryopteris							Panicum							
Ostrya virginiana						Equisetum arvense							Phalaris arundinacea							
Parthenocissus vitacea						Equisetum hyemale							Panicum pratense							
Populus balsamifera						Equisetum variegatum							Phragmites australis							
Populus grandidentata						Equisetum							Poa compressus							
Populus tremuloides	✓					Gymnocarpium dryopteris							Poa pratensis							
Populus deltoides	✓					Lycopodium digitatum							Poa							
Prunus pennsylvanica						Lycopodium obscurum							Scirpus atrovirens							
Prunus serotina						Lycopodium							Scirpus cyperinus							
Prunus virginiana						Lycopodium							Scirpus validus							
Prunus SP.	✓					Lycopodium							Scirpus							
Quercus macrocarpa						Marsilea stratifolieris							Scirpus							
Quercus rubra						Ooclea sensibilis							Setaria							
Quercus						Osmunda cinnamomea							Sparganium							
Rhamnus catherina	✓					Osmunda regalis							Typha angustifolia							
Rhus typhina						Polydichum acrostichoides							Typha latifolia							
Rhus typhina						Pteridium aquilinum							Typha Xglauca							
Ribes americana						Thelypteris palustris														
Ribes cynosbati																				
Ribes x rubrum																				
Robinia pseudo-acacia																				







**ELC** Community Description and Classification

Site: ~~427~~ BLW 1819 Polygon:  **1819**

Surveyor(s): *Kawasto* Date: *Sept 7/11* Time start: *12:00* finish:

UTMZ:  UTMN:

**Polygon Description**

System	Substrate	Topographic Featring	Plant Form	Community
<input checked="" type="checkbox"/> Terrestrial <input type="checkbox"/> Wetland <input type="checkbox"/> Aquatic <b>Site</b> <input type="checkbox"/> Open Water <input type="checkbox"/> Shallow Water <input type="checkbox"/> Surficial Dep. <input type="checkbox"/> Bedrock	<input type="checkbox"/> Organic <input type="checkbox"/> Mineral Soil <input checked="" type="checkbox"/> Parent Min. <input type="checkbox"/> Acidic Bedrk <input type="checkbox"/> Basic Bedrk <input type="checkbox"/> Carb. Bedrk	<input type="checkbox"/> Lacustrine <input type="checkbox"/> Riverine <input type="checkbox"/> Bottomland <input type="checkbox"/> Terrace <input checked="" type="checkbox"/> Valley Slope <input checked="" type="checkbox"/> Tableland <input type="checkbox"/> Roll. Upland <input type="checkbox"/> Cliff <input type="checkbox"/> Talus <input type="checkbox"/> Crevice/Cave <input type="checkbox"/> Alvar <input type="checkbox"/> Rockland <input type="checkbox"/> Beach / Bar <input type="checkbox"/> Sand Dune <input type="checkbox"/> Bluff	<input type="checkbox"/> Plankton <input type="checkbox"/> Submerged <input type="checkbox"/> Floating-LVD. <input type="checkbox"/> Graminoid <input type="checkbox"/> Forb <input type="checkbox"/> Lichen <input type="checkbox"/> Bryophyte <input checked="" type="checkbox"/> Deciduous <input type="checkbox"/> C.oniferous <input type="checkbox"/> Mixed	<input type="checkbox"/> Lake <input type="checkbox"/> Pond <input type="checkbox"/> River <input type="checkbox"/> Stream <input type="checkbox"/> Marsh <input type="checkbox"/> Swamp <input type="checkbox"/> Fen <input type="checkbox"/> Bog <input type="checkbox"/> Barren <input type="checkbox"/> Meadow <input type="checkbox"/> Prairie <input type="checkbox"/> Tricket <input type="checkbox"/> Savannah <input type="checkbox"/> Woodland <input checked="" type="checkbox"/> Forest <input type="checkbox"/> Plantation

**Stand Description**

Layer	HT	CVR	Species in Order of Decreasing Dominance (up to 4 sp) (> Much Greater Than) > Greater Than; = About Equal To)
1	2	4	<i>Fragaria</i>
2	3	3	<i>Fragaria</i> > <i>Rubus</i>
3			
4	5/6	4	<i>Solati - Astanc</i> > <i>Fraxina</i>

HT Codes: 7 > 0.2m 8 > 0.2-0.5m 9 > 0.5-1m 4 > 1-2m 3 > 2-6m 2 > 6-25m 1 > 26m  
 CVR Codes: 0 = none 1 0% - 10% 2 10 - 25% 3 25 - 50% 4 > 50%

**Stand Composition: Size Class Analysis:**

Standing Snags:	A	<10	A	10-24		25-50	>50
Deadfall/Logs:	A	<10	A	10-24		25-50	>50

BA:

Abundance Codes: N = None R = Rare O = Occasional A = Abundant

**Com. Age:**  Pioneer  Young  Mid-Age  Mature  Old Growth

**Ecothe:** Code:

**Vegetation Type:** Code: *FOD 7-2*

**Inclusion:** Code:

**Complex:** Code:

**Community Profile Diagram/Comments**

*Small Isolated Green Area Forest in 2 units*

Notes:

**Tree Tally by Species**

Species	Tally 1	Tally 2	Tally 3	Tally 4	Total	Prism Factor
<b>Total</b>						2
<b>Basal Area (BA)</b>						
<b>Dead</b>						

**Soils Ontario and ELC Soils Description**

Site Metrics		Soils Ontario and ELC Soils Description				Summary
Pit/Auger #						
Zone						
Easting						
Northing						
Position						
Aspect						
Percent						
Slope						
Length						
Mottles						
Clay						
Water Table						
Carbonates						
Bedrock						
Depth from zero		% CF	% CF	% CF	% CF	% CF
Texture						
Depth from zero		% CF	% CF	% CF	% CF	% CF
Texture						
Depth from zero		% CF	% CF	% CF	% CF	% CF
Texture						
Depth from zero		% CF	% CF	% CF	% CF	% CF
Texture						
Depth from zero		% CF	% CF	% CF	% CF	% CF
Texture						
% Surface Stone/Rock						
Moisture Regime						
Drainage						

VASCULAR PLANT CHECKSHEET

Location: **Bluewater 427**  
 Observer: **Konstra**

Date: **Sept 7, 2011**  
 Job Number:

DICOT HERBS												MONOCOT HERBS											
1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6						
Achillea millefolium						Erigeron annuus						Plantago lanceolata						Alisma plantago-aquatica					
Actaea pachypoda						Erigeron philadelphicus						Plantago major						Allium tricoccum					
Actaea rubra						Erigeron strigosus						Plantago rugelii						Allium					
Agalinus						Erysimum cheiranthoides						Podophyllum peltatum						Arisaema triphyllum					
Agrimonia gryposepala						Eupatorium maculatum						Polygonum						Asparagus officinalis					
Allaria petiolaris						Eupatorium perfoliatum						Polygonum						Cela palustris					
Amaranthus retrofractus						Eupatorium rugosum						Polygonum						Clinortia borealis					
Ambrosia artemisiifolia						Euphorbia						Polygonum lepatifolium						Conwallaria majus					
Amphicarpaea bracteata						Euthamia graminifolia						Polygonum persicaria						Cyrtopodium eschscholii					
Anaphalis margaritacea						Fragaria virginiana		X				Potentilla						Elodea canadensis					
Anemone						Fragaria vesca						Potentilla norvegica						Epipactis helleborine					
Anemone canadensis						Galeopsis tetrahit						Potentilla recta						Erythronium americanum					
Anemone virginiana						Gallium						Pranthes alba						Hemerocallis fulva					
Aniannaria neglecta						Gallium						Prunella vulgaris						Iris versicolor					
Apocynum androsaemifolium						Gallium palustre						Pyrola elliptica						Lemna minor					
Apocynum cannabinum						Gallium triflorum						Ranunculus						Lemna trisulca					
Aquilegia canadensis						Geranium maculatum						Ranunculus abortivus						Lilium					
Aralia nudicaulis						Geranium robertianum						Ranunculus acris						Melantherum canadense					
Aristolochia	X					Geum aleppicum						Rudbeckia hirta						Melantherum racemosa					
Artemisia						Geum canadense		X				Rumex acetosella						Melantherum stellata					
Asarum canadense						Geum						Rumex crispus						Plantanthera					
Asclepias incarnata						Glossoma hederacea						Rumex						Pentstemon cordata					
Asclepias syriaca						Hepatica acutiloba						Sanguinaria canadensis						Polygonatum pubescens					
Aster						Hesperis matronalis						Sanicula marilandica						Potamogeton crispus					
Aster cordifolius						Hieracium aurantiacum						Saponaria officinalis						Potamogeton pectinatus					
Aster ericoides						Hieracium caespitosum						Satureja vulgaris						Potamogeton					
Aster lanceolatus	X					Hieracium						Scutellaria galericulata						Potamogeton					
Aster lateriflorus						Hydrophyllum virginianum						Silene vulgaris						Potamogeton					
Aster macrophyllus						Hypericum perforatum						Sium suave						Segitaria latifolia					
Aster novae-angliae	X					Impatiens capensis						Solanum dulcamara						Sisyrinchium montanum					
Aster punicus						Inula helentium						Solidago						Smilax herbacea					
Barbarea vulgaris						Lactuca						Solidago altissima		X				Spiranthes cernua					
Bidens cernua						Laportea canadensis						Solidago caesia						Spirodola polytricha					
Bidens frondosa						Lapsana communis						Solidago canadensis						Streptopus roseus					
Bocchmeria cylindrica						Leonurus cardiaca						Solidago flexicaulis						Trillium erectum					
Callitriche palustris						Lepidium						Solidago gigantea						Trillium grandiflorum					
Calystegia sepium						Linaria vulgaris						Solidago nemoralis						Urtica grandiflora					
Cardamine diphylla						Lithospermum officinale						Solidago rugosa											
Cardamine						Lebelle						Sonchus arvensis											
Caulophyllum thalictroides						Lobelia inflata						Sonchus asper											
Cenactium fortanum						Lotus corniculatus						Stellaria											
Cerastophyllum demersum						Lycopus americanus						Tanacetum vulgare											
Chelidonium majus						Lycopus						Taraxacum officinale											
Chenopodium album						Lysimachia ciliata						Thalictrum dioicum											
Chrysanth. leucanthemum						Lythrum salicaria						Thalictrum pubescens											
Cichorium intybus						Medicago lupulina						Tiarela sordidifolia											
Cicuta						Medicago sativum						Tragopogon pratensis											
Circaea leutellana						Mollis alba						Trientalis borealis											
Cirsium arvense						Monarda arvensis						Trifolium											
Cirsium vulgare						Mimulus ringens						Trifolium pratense											
Clematis virginiana						Mimulus ringens						Trifolium repens											
Clinortia borealis						Mibellea diphylla						Tussilago farfara											
Comyza canadensis						Monarda fistulosa						Urtica dioica											
Coronilla varia						Myosotis						Utricularia vulgaris											
Cyananthium rossicum						Nasturtium officinale						Verbascum thapsus											
Cynoglossum officinale						Nepeta cataria						Verbena hastata											
Daucus carota						Nuphar variegatum						Verbena urticifolia											
Desmodium canadense						Nymphase odorata						Veronica											
Dianthus ameria						Oenothera biennis						Veronica officinalis											
Dipycnos fulvum						Osmorhiza						Vicia cracca											
Echinopsys lobata						Oxalis stricta						Vicia tetrasperma											
Echium vulgare						Phytol leptoactya						Viola											
Epilobium						Physalis heterophylla						Viola											
Epilobium ciliatum												Viola pubescens											
Epilobium hirsutum												Viola sororia											
Epilobium parviflorum																							

- 1: \_\_\_\_\_ 4: \_\_\_\_\_  
 2: \_\_\_\_\_ 5: \_\_\_\_\_  
 3: \_\_\_\_\_ 6: \_\_\_\_\_

SITE LOCATIONS

1 CONIFERS						TREES and SHRUBS						GRAMINOIDS					
1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6
Abies balsamea						+ Rosa multiflora						Agrostis gigantea					
Juniperus communis						Rosa						Agrostis stolonifera					
Juniperus virginiana						Rubus allegheniensis						Agropyron repens					
Larix laricina						Rubus idaeus				X		Alopecurus					
Picea abies						Rubus occidentalis						Bromus inermis					
Picea glauca						Rubus odoratus						Calamagrostis canadensis					
Pinus resinosa						Rubus pubescens						Carex arctata					
Pinus strobus						Salix alba						Carex aurea					
Pinus sylvestris						Salix amygdaloides						Carex bebbii					
Thuja occidentalis						Salix bebbiana						Carex blanda					
Tsuga canadensis						+ Salix discolor						Carex gracillima					
						Salix eriocephala						Carex granularis					
						Salix exigua						Carex hystericina					
						Salix lucida						Carex pennsylvanica					
						Salix petiolaris						Carex radiata					
						+ Salix purpurea						Carex retrorsa					
TREES and SHRUBS						Salix x rubens						Carex stipata					
Acer negundo						+ Salix						Carex stricta					
Acer rubrum						Sambucus canadensis						Carex vulpinoidea					
Acer saccharinum						Sambucus racemosa						Carex					
Acer saccharum						Sorbus aucuparia						Carex					
Acer spicatum						Spiraea alba						Carex					
Alnus rugosa						Syringa vulgaris						Carex					
Amelanchier						+ Tilia americana				X		Carex					
Berberis thunbergii						Ulmus americana						Carex					
Betula alleghaniensis						Ulmus						Carex					
Betula papyrifera						Vaccinium						Carex					
Carpinus caroliniana						Viburnum lentago						Carex					
Carya cordiformis						Viburnum opulus						Cyperus					
Celastrus scandens						Viburnum						Cyperus					
Cornus alternifolia						Vitis riparia				X		Dactylis glomerata					
Cornus amomum												Danthonia spicata					
Cornus rugosa <del>foenicula</del> X → ?												Echinochloa crus-galli					
Cornus stolonifera												Eleocharis erythropoda					
Corylus cornuta												Eleocharis					
Crataegus monogyna												Elymus virginicus					
Crataegus punctata												Elymus					
Crataegus sp.												Festuca arundinacea					
Crataegus												Glyceria striata					
Diervilla lonicera												Glyceria					
Fagus grandifolia												Juncus dudleyi					
Fraxinus americana		X										Juncus effusus					
Fraxinus nigra						FERNS						Juncus tenuis					
Fraxinus pennsylvanica		X				Adiantum pedatum						Juncus					
Ilex verticillata						Athyrium filix-femina						Juncus					
Juglans cinerea						Botrychium multifidum						Leersia oryzoides					
Juglans nigra						Botrychium virginicum						Muhlenbergia					
Lonicera morrowi						Cystopteris bulbifera						Oryzopsis asperifolia					
Lonicera tatarica		X				Dryopteris carthusiana						Panicum					
Lonicera						Dryopteris cristata						Panicum					
Malus pumila		X				Dryopteris marginalis						Phalaris arundinacea				X	
Ostrya virginiana						Dryopteris						Phleum pratense					
Parthenocissus inserta		X				Equisetum arvense						Phragmites australis					
Populus balsamifera						Equisetum hyemale						Poa compressus					
Populus grandidentata						Equisetum variegatum						Poa pratensis				X	
Populus tremuloides						Equisetum						Poa					
Populus						Gymnocarpium dryopteris						Scirpus atrovirens					
Prunus pennsylvanica						Lycopodium digitatum						Scirpus cyperinus					
Prunus serotina						Lycopodium obscurum						Scirpus validus					
Prunus virginiana						Lycopodium						Scirpus					
Prunus						Lycopodium						Scirpus					
Quercus macrocarpa						Matteucia struthiopteris						Setaria					
Quercus rubra						Onoclea sensibilis						Sparganium					
Quercus						Osmunda cinnamomina						Typha angustifolia					
Rhamnus cathartica		X				Osmunda regalis						Typha latifolia					
Rhus radicans		X				Polystichum acrostichoides						Typha X glauca					
Rhus typhina						Pteridium aquilinum											
Ribes americana						Thelypteris palustris											
Ribes cynosbati																	
Ribes x rubrum																	
Robinia pseudo-acacia																	

# Bluewater Feature: 437\_BLW1082

(Properties that contain Features within 125m from Collection Lines and 71.5m from turbines)

August 29, 2017



- Basics
- Access/Collection Line
- Collection Buffer (125m)
- Turbine Buffer (71.5m)

- Collection Feature Intersect
- Turbine Buffer Intersect
- Property Files
- Bluewater Wind Energy Colline



**ELC**  
Community Description and Classification

Site: 437\_BLW1082 Polygon: 2

Surveyor(s): *Kamusta* Date: *Sept 1/11* Time start: *13:30* finish: *14:00*

UTMZ: *17* UTMZ: *449420* UTMN: *4811075*

**Tree Tally by Species**

Species	Tally 1	Tally 2	Tally 3	Tally 4	Total	Rel. Avg.
<b>Total</b>						100
<b>Basal Area (BA)</b>						
<b>Dead</b>						

**Polygon Description**

System	Substrate	Topographic Feature	Plant Form	Community
<input type="checkbox"/> Terrestrial <input type="checkbox"/> Wetland <input type="checkbox"/> Aquatic	<input type="checkbox"/> Organic <input checked="" type="checkbox"/> Mineral Soil <input type="checkbox"/> Parent Min. <input type="checkbox"/> Acidic Bedrk <input type="checkbox"/> Basic Bedrk <input type="checkbox"/> Carb. Bedrk	<input type="checkbox"/> Lacustrine <input type="checkbox"/> Riverine <input type="checkbox"/> Boltomland <input type="checkbox"/> Terrace <input type="checkbox"/> Valley Slope <input checked="" type="checkbox"/> Tableland <input type="checkbox"/> Roll. Upland <input type="checkbox"/> Cliff <input type="checkbox"/> Talus <input type="checkbox"/> Crevice/Cave <input type="checkbox"/> Alvar <input type="checkbox"/> Rockland <input type="checkbox"/> Beach / Bar <input type="checkbox"/> Sand Dune <input type="checkbox"/> Bluff	<input type="checkbox"/> Plankton <input type="checkbox"/> Submerged <input type="checkbox"/> Floating-LVD. <input type="checkbox"/> Graminoid <input type="checkbox"/> Forb <input type="checkbox"/> Lichen <input type="checkbox"/> Bryophyte <input checked="" type="checkbox"/> Deciduous <input type="checkbox"/> Coniferous <input type="checkbox"/> Mixed	<input type="checkbox"/> Lake <input type="checkbox"/> Pond <input type="checkbox"/> River <input type="checkbox"/> Stream <input type="checkbox"/> Marsh <input checked="" type="checkbox"/> Swamp <input type="checkbox"/> Fen <input type="checkbox"/> Bog <input type="checkbox"/> Barren <input type="checkbox"/> Meadow <input type="checkbox"/> Prairie <input type="checkbox"/> Thicket <input type="checkbox"/> Savannah <input type="checkbox"/> Woodland <input type="checkbox"/> Forest <input type="checkbox"/> Plantation

**Stand Description**

Layer	HT	CVR	Species in Order of Decreasing Dominance (up to 4 sp) (> Much Greater Than; > Greater Than; = About Equal To)
1	2	2	<i>Acetivae</i>
2	3/4	3	<i>Conifer - Populus - Vitex</i>
3			
4	5/6	4	<i>Solvaen - Rubidee</i> → <i>Apocana</i> - <i>Plagruan</i>

HT Codes: 7 <0.2m 8 >0.2-0.5m 9 >0.5-1m 4 >1-2m 3 >2-6m 2 >6-25m 1 >25m  
 CVR Codes: 0 = none 1 0% - 10% 2 10 - 25% 3 25 - 50% 4 >50%

**Stand Composition: Size Class Analysis:**

Standing Snags:	Deadfall / Logs:	<10	10-24	25-50	>50
			0	0	0

BA: 0

Abundance Codes: N = None R = Rare O = Occasional A = Abundant

Com. Age:  Pioneer  Young  Mid-Age  Mature  Old Growth

**Ecocits:**

Vegetation Type:	Inclusion:	Complex:	Code:
			<i>SW03-3</i>

**Community Profile Diagram/Comments**

*Narrow strip of woodlot along edge of field*  
*Disturbed edge (from Agric.) of Freeman Maple Swamp*

Notes:

**Soils Ontario and ELC Soils Description**

Site Metrics	PIN/Auger #		Soils Ontario and ELC Soils Description				Summary
	Zone	Eastng	Northng	Position	Aspect	Percent	
UTM							
Slope							
Mottles							
Gley							
Water Table							
Carbonates							
Bedrock							
Depth to ...	1	Depth from zero		% CF		% CF	% CF
		Texture					
Soil Horizon Description	2	Depth from zero		% CF		% CF	% CF
		Texture					
	3	Depth from zero		% CF		% CF	% CF
		Texture					
	4	Depth from zero		% CF		% CF	% CF
		Texture					
		% Surface Stone/Rock					
		Moisture Regime					
		Drainage					

Location: Bluewater  
 Observer: J. Kaunstra

437

VASCULAR PLANT CHECKSHEET

Date: Sept 1, 2011

Job Number:

DICOT HERBS											MONOCOT HERBS						
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	6	
Achillea millefolium	X					Erigeron annuus						Plantago lanceolata					
Actaea paschypoda						Erigeron philadelphicus						Plantago major					
Actaea rubra						Erigeron strigosus			X			Plantago rugellii	X				
Agalinis						Erysimum cheiranthoides						Pedophyllum peltatum					X
Agrimonia eupatoria	X	X				Eupatorium maculatum						Polygonum					
Ailanthus glandulosa	X	X	X			Eupatorium perfoliatum						Polygonum					
Amaranthus retrofractus						Eupatorium rugosum						Polygonum					
Ambrosia artemisiifolia	X	X				Euphorbia						Polygonum lapathifolium					
Ambrosia trifida						Euthamia graminifolia						Polygonum persicaria					
Anaphalis margaritacea						Fregetta virginiana		X				Potentilla					
Anemone						Fragaria vesca						Potentilla norvegica					
Anemone canadensis						Galeopsis tetrahit						Potentilla recta					
Anemone virginiana						Gallium						Prenanthes alba					
Anemone nemorosa						Gallium						Prunella vulgaris	X				
Apocynum androsaemifolium						Gallium palustre						Pyrola elliptica					
Apocynum cannabinum			X			Gallium triflorum						Ranunculus					
Aquilegia canadensis						Geranium maculatum						Ranunculus abortivus					
Aralia nudicaulis						Geranium robertianum		X				Ranunculus acris					
Arcium minus	X	X	X			Geum aleppicum		X				Rudbeckia hirta					
Artemisia						Geum canadense		X	X			Rumex acetosella					
Asarum canadense						Geum						Rumex crispus					
Astilbeles incarnata						Glaucocoma frutescens						Rumex					
Asplenium platyneuron						Hepatica scutellata						Sanguinaria canadensis					
Aster						Hesperis matronalis						Sanicula marilandica					
Aster cordifolius						Hieracium aurantiacum						Saponaria officinalis					
Aster eriolepis						Hieracium caespitosum						Satureja vulgaris					
Aster laevis	X	X				Hieracium						Scutellaria galericulata					
Aster laevis	X	X	X			Hydrophyllum virginianum						Silene vulgaris					
Aster macrophyllus						Hypoxis perforatum						Sium suave					
Aster novae-angliae			X			Impatiens capensis			X			Solanum dulcamara	X				
Aster purpureus						Inula helenium						Solidago					
Barbarea vulgaris						Lactuca						Solidago altissima					
Bidens cernua						Laportea canadensis						Solidago canadensis	X	X	X		
Bidens frondosa						Lapsana communis						Solidago flexuosa					
Boehmeria cylindrica						Leonurus cardiaca						Solidago gigantea	X				
Callis palustris						Lepidium						Solidago nemoralis					
Calystegia sepium						Linaria vulgaris						Solidago rugosa					
Cardenia diphylla						Lithospermum obtusolob	X					Sonchus oleraceus					
Cardenia						Lobelia						Sonchus asper					
Caulophyllum thalictroides						Lobelia inflata						Stellaria					
Cerastium fontanum						Lolium comiculatus						Tenaculum vulgare					
Ceratophyllum demersum						Lycopus americanus						Taraxacum officinale	X				
Chelidonium majus						Lycopus						Thalictrum dilaucum					
Chenopodium album						Lysimachia ciliata						Thalictrum pubescens					
Chrysanth. leucanthemum						Lythrum salicaria						Tharalia cordifolia					
Dicentra frimbria						Medicago lupulina						Tragopogon pratensis					
Cicuta						Medicago sativum						Triantella borealis					
Circaea lutetiana	X	X				Melilotus alba						Trifolium					
Cirsium graveolens						Mertensia serotina						Trifolium pratense					
Cirsium vulgare						Mimulus ringens						Trifolium repens					
Clematis virginiana						Mimulus ringens						Tussilago farfara					
Cimicifuga racemosa						Mullein						Urtica dioica					
Coryza canadensis						Monarda fistulosa						Urticularia vulgaris					
Coronilla varia						Mycoselia						Verbascum thapsus					
Cyananthus rossicum						Nasturtium officinale						Verbena hastata					
Cynoglossum officinale						Nepeta cataria						Verbena urticifolia					
Daucus carota						Nepeta veriegata						Veronica					
Desmodium canadense						Nymphes odorata						Veronica officinalis					
Dianthus armeria						Oenothera biennis						Viola cracca					
Dipsacus fullonum						Oenothera						Viola lasperma					
Echinocystis lobata						Oxalis stricta						Viola					
Echium vulgare						Phytolacca						Viola pubescens					
Epilobium						Physalis heterophylla						Viola sororia	X				
Epilobium ciliatum						<u>Lysimachia thrys</u>	X										
Epilobium hirsutum																	
Epilobium pavillorum																	
<u>Chelone glabra</u>	X																

SITE LOCATIONS

1: BLW Feature 433 4: \_\_\_\_\_  
 2: \_\_\_\_\_ Feature 439 5: \_\_\_\_\_  
 3: \_\_\_\_\_ Feature 437 6: \_\_\_\_\_



<b>ELC</b>  <b>WILDLIFE</b>	SITE: <u>Bluewater 437</u>	
	POLYGON:	
	DATE:	
	SURVEYORS:	
	START TIME: <u>13:50</u>	END TIME: <u>14:00</u>

TEMP (°C): <u>28</u>	CLOUD (10th): <u>3</u>	WIND: <u>2</u>	PRECIPITATION:
CONDITIONS:			

**POTENTIAL WILDLIFE HABITAT:**

VERNAL POOLS	SNAGS
HIBERNACULA	FALLEN LOGS

**SPECIES LIST:**

TY	SP. CODE	EV	NOTES	#	TY	SP. CODE	EV	NOTES	#
B	AMCR	OB							
B	FUVU	OB							
B	HWR	VO							
"	YWA	OB							
"	REVI	OB							
"	AMRO	VO							
"	GRCA	VO							
"	SOSP	OB							
L	Cobbler	OB							
L	Atfalpa								
L	Silver-sp. Skipper								

**FAUNAL TYPE CODES (TY):**

B = BIRD M = MAMMAL H = HERPETOFAUNA L = LEPIDOPTERA F = FISH O = OTHER

**EVIDENCE CODES (EV):**

**BREEDING BIRD - POSSIBLE:**

SH = SUITABLE HABITAT

SM = SINGING MALE

**BREEDING BIRD - PROBABLE:**

T = TERRITORY

D = DISPLAY

P = PAIR

A = ANXIETY BEHAVIOUR

N = NEST BUILDING

V = VISITING NEST

**BREEDING BIRD - CONFIRMED:**

DD = DISTRACTION

NU = USED NEST

FY = FLEDGED YOUNG

NE = EGGS

NY = YOUNG

FS = FOOD/FECAL SACK

AE = NEST ENTRY

**OTHER WILDLIFE EVIDENCE:**

OB = OBSERVED

VO = VOCALIZATION

CA = CARCASS

DP = DISTINCTIVE PARTS

HO = HOUSE/DEN

FY = EGGS/YOUNG

TK = TRACKS

FE = FEEDING EVIDENCE

SC = SCAT

SI = OTHER SIGNS (specify)





**ELC** Site: 439\_BLW1854 Polygon: Prism Factor 2

Community Description and Classification

Surveyor(s): Kawista Date: Sept 1/11 Time start: 13:00 finish: 19:35

UTMZ: UTMZ: UTMN:

**Polygon Description**

System	Substrate	Topographic Feature	Plant Form	Community
<input type="checkbox"/> Terrestrial <input type="checkbox"/> Wetland <input type="checkbox"/> Aquatic <b>Site</b> <input type="checkbox"/> Open Water <input type="checkbox"/> Shallow Water <input type="checkbox"/> Surficial Dep. <input type="checkbox"/> Bedrock <b>History</b> <input checked="" type="checkbox"/> Natural <input type="checkbox"/> Cultural <b>Cover</b> <input type="checkbox"/> Open <input type="checkbox"/> Shrub <input type="checkbox"/> Tree	<input type="checkbox"/> Organic <input checked="" type="checkbox"/> Mineral Soil <input type="checkbox"/> Parent Min. <input type="checkbox"/> Acidic Bedrk <input type="checkbox"/> Basic Bedrk <input type="checkbox"/> Carb. Bedrk	<input type="checkbox"/> Lacustrine <input type="checkbox"/> Riverine <input type="checkbox"/> Bottomland <input type="checkbox"/> Terrace <input type="checkbox"/> Valley Slope <input checked="" type="checkbox"/> Tableland <input type="checkbox"/> Roll. Upland <input type="checkbox"/> Cliff <input type="checkbox"/> Talus <input type="checkbox"/> Crevice/Cave <input type="checkbox"/> Alvar <input type="checkbox"/> Rockland <input type="checkbox"/> Beach / Bar <input type="checkbox"/> Sand Dune <input type="checkbox"/> Bluff	<input type="checkbox"/> Plankton <input type="checkbox"/> Submerged <input type="checkbox"/> Floating-LVD, <input type="checkbox"/> Graminoid <input type="checkbox"/> Forb <input type="checkbox"/> Lichen <input type="checkbox"/> Bryophyte <input checked="" type="checkbox"/> Deciduous <input type="checkbox"/> Coniferous <input type="checkbox"/> Mixed	<input type="checkbox"/> Lake <input type="checkbox"/> Pond <input type="checkbox"/> River <input type="checkbox"/> Stream <input type="checkbox"/> Marsh <input checked="" type="checkbox"/> Swamp <input type="checkbox"/> Fen <input type="checkbox"/> Bog <input type="checkbox"/> Barran <input type="checkbox"/> Meadow <input type="checkbox"/> Prairie <input type="checkbox"/> Thicket <input type="checkbox"/> Savannah <input type="checkbox"/> Woodland <input checked="" type="checkbox"/> Forest <input type="checkbox"/> Plantation

**Stand Description** *woodlot Frump*

Layer	HT	CVR	Species in Order of Decreasing Dominance (up to 4 sp) (> Much Greater Than; > Greater Than; = About Equal To)
1	2	4	<i>Fragaria</i> → <i>Leptium</i> - <i>Juglans</i> ↓
2	3	3	<i>Crataegus</i> - <i>Morus</i>
3	4	3	<i>Cornus</i> → <i>Prunus</i> → <i>Aster</i>
4	6	3	<i>Parus</i> <i>Agropyron</i> <i>Aster</i>

HT Codes: 7 < 0.2m 8 > 0.2-0.5m 5 > 0.5-1m 4 > 1-2m 3 > 2-4m 2 > 4-8.25m 1 > 8.25m  
 CVR Codes: 0 = none 1 0% - 10% 2 10 - 25% 3 25 - 50% 4 > 50%

Stand Composition:	Size Class Analysis:	Standing Snags:	Deadfall / Logs:
	A < 10 10-24 A 25-50 > 50	< 10 10-24 25-50 > 50	< 10 10-24 25-50 > 50
BA:			

Abundance Codes: N = None R = Rare O = Occasional A = Abundant

Com. Age:  Pioneer  Young  Mid-Age  Mature  Old Growth

Ecotope:	Code:
Vegetation Type:	<i>SWAMP FOD 72</i>
Inclusion:	
Complex:	

**Community Profile Diagram/Comments**

*woodlot cleared from edge of ady property*

*Back interior of woodlot is*

*Red Ash Mineral Swamp (Turn over)*

Notes:

**Tree Tally by Species**

Species	Tally 1	Tally 2	Tally 3	Tally 4	Total	Rel. Avg.
<b>Total</b>						100
<b>Basal Area (BA)</b>						
<b>Dead</b>						

**Soils Ontario and ELC Soils Description**

Site Metrics	PIU/Auger #	Soils Description				Summary
UTM	Zone					
	Easting	17	44	765		
	Northing	48	1140			
Slope	Position					
	Aspect	level				
	Percent					
	Slope Length					
Depth to ...	Mottles					
	Clay					
	Water Table	2-0				
	Carbonates					
	Bedrock					
1	Depth from zero	20	% CF	% CF	% CF	% CF
	Texture	silty loam				
2	Depth from zero	35	% CF	% CF	% CF	% CF
	Texture	silty clay				
3	Depth from zero		% CF	% CF	% CF	% CF
	Texture					
4	Depth from zero		% CF	% CF	% CF	% CF
	Texture					
	% Surface Stoner/Rock					
	Moisture Regime					
	Drainage					

*Seasonally flooded*

Deerhorn Swamp - evidence of seasonal flooding but  
ground is dry at present

2-4 Frapenn  $\Rightarrow$  Uluauer - Acefree

3-4 Uluauer - Acefree

6-3 Glystri - Rhuradi - Parinse

Seasonal flooding prob very brief because ground cover does not contain  
high % of wetland plants.

*Lysimachia thysiflora* present in SW corner of woodlot, deeper flooding  
than elsewhere (but dry at present).

FO07-2

VASCULAR PLANT CHECKSHEET

Location: Bluewater 439  
 Observer: J. Kaunstra

Date: Sept 1, 2011

Job Number:

DICOT HERBS												MONOCOT HERBS											
1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6						
Achillea millefolium	X					Erigeron annuus						Plantago lanceolata						Alliaria plantago-aquatica					
Actaea pachypoda						Erigeron philadelphicus						Plantago major						Allium tricoccum					
Actaea rubra						Erigeron strigosus			X			Plantago rugosell	X					Allium					
Agelium						Erythraea cicutifolia						Podophyllum peltatum						Arisaema triphyllum				X	
Agrimonia gryposepala		X	X			Eupatorium maculatum						Polygonum						Asparagus officinalis					
Alliaria petiolata	X	X				Eupatorium perfoliatum						Polygonum						Calla palustris					
Amaranthus retroflexus						Eupatorium rugosum						Polygonum						Clintonia borealis					
Ambrosia artemisiifolia	X	X				Euphorbia						Polygonum lapathifolium						Corvallisaria majus					
Amphicarpaea bracteata						Euthamia graminifolia						Polygonum persicaria						Cypripedium calceolus					
Anaphalis margaritacea						Fragaria virginiana	X					Potentilla						Elodea canadensis					
Anemone						Fragaria vesca						Potentilla norvegica						Epipactis helleborina				X	
Anemone canadensis						Galeopsis tetrahit						Potentilla recta						Erythronium americanum					
Anemone virginiana						Galium						Preranthus alba						Hemerocallis fulva					
Antennaria neglecta						Galium						Prunella vulgaris	X					Iris versicolor				X	
Apocynum androsaemifolium						Galium palustre						Pyrola elliptica						Linum minor					
Apocynum cannabinum			X			Galium triflorum						Ranunculus						Lemna trileuca					
Aquilegia canadensis						Geranium maculatum						Ranunculus abortivus						Lilium					
Arnica montana						Geranium robertianum			X			Ranunculus acris						Mianthemum canadense					
Asa foetida						Geum aleppicum			X			Rudbeckia hirta						Mianthemum racemosum					
Asarum canadense						Geum carolinense	X	X	X			Rumex acetosella						Mianthemum stellata					
Asclepias incarnata						Geum						Rumex crispus						Platanthera					
Asclepias syriaca						Glaucium hederaceum						Rumex						Portulaca cordata					
Aster						Hepatica acutiloba						Sanguinaria canadensis						Polygonatum pubescens					
Aster cordifolius						Hesperis matronalis						Saricula marilandica						Potamogeton crispus					
Aster eriolepis						Hieracium aurantiacum						Saponaria officinalis						Potamogeton					
Aster lanceolatus	X	X				Hieracium cespitosum						Satureia vulgaris						Potamogeton					
Aster laevis	X	X	X			Hieracium						Scutellaria galericulata						Potamogeton					
Aster multiflorus	X	X	X			Hydrophyllum virginianum						Silene vulgaris						Sagittaria latifolia					
Aster macrophyllus						Hypericum perforatum						Siuna suave						Silybum marianum					
Aster novae-angliae		X				Impatiens capensis			X			Solanum dulcamara	X					Smilax herbacea					
Aster paniculatus						Inula helenium						Solidago						Spiranthes cernua					
Barbarea vulgaris						Lactuca						Solidago altissima						Spiraea polytricha					
Bidens cernua						Laportea canadensis						Solidago caesia						Stroptopus roseus					
Bidens frondosa						Lapsana communis						Solidago canadensis	X	X	X			Trillium erectum					
Boehmeria cylindrica						Leonurus cardiaca						Solidago flexuosula						Trillium grandiflorum					
Calla palustris						Lepidium						Solidago gigantea			X			Uvularia grandiflora					
Calystegia sepium						Lithospermum officinale	X					Solidago nemoralis											
Cardamine diphylla						Lobelia						Solidago rugosa											
Cardamine						Lobelia inflata						Sonchus oleraceus											
Caulophyllum thalictroides						Lofium comiculatum						Sonchus asper											
Cenactium fontanum						Lycopus americanus						Stellaria											
Ceratophyllum demersum						Lycopus						Taraxacum vulgare											
Chelidonium majus						Lysimachia ciliata						Taraxacum officinale	X										
Chenopodium album						Lythrum salicaria						Thalictrum dioicum											
Chrysanth. leucanthemum						Medicago lupulina						Thalictrum pubescens											
Cichorium intybus						Medicago sativum						Tianella cordifolia											
Cicuta						Mellilotus alba						Trepopogon pratensis											
Circaea leucostoma	X	X				Mertensia virginica						Trifolium boreale											
Cirsium arvense						Mimulus ringens						Trifolium											
Cirsium vulgare						Mimulus ringens						Trifolium pratense											
Clematis virginiana						Mimulus ringens						Trifolium repens											
Clintonia borealis						Mullein						Tussilago farfara											
Coryza canadensis						Munaria						Urtica dioica											
Cornifolia varia						Nasturtium officinale						Urtica dioica											
Cynanchum rossicum						Nepeta cataractae						Urtica dioica											
Cynoglossum officinale						Nepeta cataractae						Urtica dioica											
Daucus carota						Nepeta cataractae						Urtica dioica											
Dasmodium canadense						Nepeta cataractae						Urtica dioica											
Dianthus armeria						Nepeta cataractae						Urtica dioica											
Dipsacus filiformis						Nepeta cataractae						Urtica dioica											
Echinopsys lobata						Nepeta cataractae						Urtica dioica											
Echium vulgare						Nepeta cataractae						Urtica dioica											
Epilobium						Nepeta cataractae						Urtica dioica											
Epilobium ciliatum						Nepeta cataractae						Urtica dioica											
Epilobium hirsutum						Nepeta cataractae						Urtica dioica											
Epilobium parviflorum						Nepeta cataractae						Urtica dioica											
Chelone glabra			X			Nepeta cataractae						Urtica dioica											

- 1: BLW Feature 433  
 2: Feature 439  
 3: Feature 437  
 4: \_\_\_\_\_  
 5: \_\_\_\_\_  
 6: \_\_\_\_\_

SITE LOCATIONS

CONIFERS						TREES and SHRUBS						GRAMINOIDS					
1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6
Abies balsamea						+ Rosa multiflora						Agrostis gigantea					
Juniperus communis						Rosa						Agrostis stolonifera					
Juniperus virginiana						Rubus allegheniensis						Agropyron repens					
Larix laricina						Rubus idaeus			X			Alopecurus					
Picea abies						Rubus occidentalis			X			Bromus inermis					
Picea glauca						Rubus odoratus			X			Calamagrostis canadensis					
Pinus resinosa						Rubus pubescens			X			Carex arctata					
Pinus strobus						Salix alba						Carex aurea					
Pinus sylvestris		X				Salix amygdaloides						Carex bebbii					
Thuja occidentalis						Salix bebbiana						Carex blanda					
Tsuga canadensis						+ Salix discolor						Carex gracillima		X			
						Salix eriocephala				X		Carex granularis					
						Salix exigua						Carex hystericina					
						Salix lucida						Carex pennsylvanica					
						Salix petiolaris						Carex radiata		X			
						+ Salix purpurea						Carex retrosa					
TREES and SHRUBS						Salix x rubens						Carex stipata					
Acer negundo			X			+ Salix						Carex stricta					
Acer rubrum			X	X		Sambucus canadensis			X	X		Carex vulpinoidea					
Acer saccharinum	X	free	X	X	X	Sambucus racemosa						Carex <i>intum</i>				X	
Acer saccharum						Sorbus aucuparia						Carex <i>impulsa</i>				X	
Acer spicatum						Spiraea alba						Carex					
Alnus rugosa						Syringa vulgaris						Carex					
Amelanchier <i>laevis</i>		X				+ Tilia americana						Carex					
Berberis thunbergii						Ulmus americana			X	X	X	Carex					
Betula alleghaniensis						Ulmus						Carex					
Betula papyrifera						Vaccinium						Carex					
Carpinus caroliniana						Viburnum lentago			X			Carex					
Carya cordiformis						Viburnum opulus						Cyperus					
Celastrus scandens						Viburnum						Cyperus					
Cornus alternifolia						Vitis riparia			X	X	X	Dactylis glomerata				X	
Cornus amomum												Danthonia spicata					
Cornus rugosa <i>toern</i>		X	X									Echinochloa crus-galli					
Cornus stolonifera		X	X									Eleocharis erythropoda					
Corylus cornuta												Eleocharis					
Crataegus monogyna												Elymus virginicus					
Crataegus punctata												Elymus					
Crataegus sp.		X										Festuca arundinacea				X	
Crataegus												Glyceria striata				X	X
Diervilla lonicera												Glyceria					
Fagus grandifolia												Juncus dudleyi					
Fraxinus americana			X	X		FERNS						Juncus effusus					
Fraxinus nigra						Adiantum pedatum						Juncus tenuis					
Fraxinus pennsylvanica		X	X			Athyrium filix-femina						Juncus					
Ilex verticillata						Botrychium multifidum						Juncus					
Juglans cinerea						Botrychium virginianum						Leersia oryzoides					
Juglans nigra			X			Cystopteris bulbifera						Muhlenbergia					
Lonicera morrowi						Dryopteris carthusiana						Oryzopsis asperifolia					
Lonicera tatarica		X				Dryopteris cristata						Panicum					
Lonicera						Dryopteris marginalis						Panicum					
Malus pumila		X	X			Dryopteris						Phalaris arundinacea				X	X
Ostrya virginiana						Equisetum arvense			X			Phleum pratense				X	
Parthenocissus inserta			X	X		Equisetum hyemale						Phragmites australis					
Populus balsamifera		X	X			Equisetum variegatum						Poa compressus					
Populus grandidentata						Equisetum						Poa pratensis				X	
Populus tremuloides		X	X			Gymnocarpium dryopteris						Poa					
Populus						Lycopodium digitatum						Scirpus atrovirens					
Prunus pennsylvanica						Lycopodium obscurum						Scirpus cyperinus					
Prunus serotina						Lycopodium						Scirpus validus					
Prunus virginiana		X	X			Lycopodium						Scirpus					
Prunus						Mattucia atruthiopteris						Scirpus					
Quercus macrocarpa						Onoclea sensibilis						Setaria					
Quercus rubra						Osmunda cinnamomina						Sparganium					
Quercus						Osmunda regalis						Typha angustifolia					
Rhamnus cathartica		X	X	X		Polystichum acrostichoides						Typha latifolia					
Rhus radicans		X	X	X		Pteridium aquilinum						Typha Xglauca					
Rhus typhina						Thelypteris palustris											
Ribes americana		X															
Ribes cynosbati																	
Ribes x rubrum																	
Robinia pseudo-acacia																	



Bluewater Feature: 4397 BLW1856/1854/1855

(Additional properties to be surveyed due to changes in the Collection & Road layout)

October 19



October 11, 2011

100 Meters



- ELC Survey Completed
- Turbine Buffer/Features Intended
- Property Fabric
- Blowover Wind Energy Dense
- Roads
- Access/Right-of-Way
- Survey to be Completed
- Turbine Buffer (171.5m)









