

**Stantec**

**SUNCOR ENERGY ADELAIDE WIND POWER PROJECT**  
NATURAL HERITAGE ASSESSMENT & ENVIRONMENTAL IMPACT STUDY

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# **Appendix C**

## **ELC and Plant List**

# Memo



**Stantec**

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To: Marnie Dawson  
Guelph

From: Melissa Straus  
Guelph

File: 160960710

Date: February 10, 2012

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**Reference: ELC Tables by Feature;  
Suncor Energy Adelaide Wind Project – Strathroy, Ontario**

## Feature 1 (Tile 1)

ELC TYPE	Community Description
<b>Forest (FO)</b>	
<b>Deciduous Forest (FOD)</b>	
<b>FOD5-2 Dry - Fresh Sugar Maple – Beech Deciduous Forest</b>	This mature deciduous community was dominated by sugar maple with American beech in the canopy, sub-canopy, and understorey, with hop hornbeam present as an understorey associate. Ground cover was not assessable at this time of year and consisted of fallen leaves.
<b>FOD6-5 Fresh – Moist Sugar Maple – Hardwood Deciduous Forest</b>	This mature community is located west of Sexton Road, and was assessed from the roadside due to a lack of property access. Sugar maple appeared to be dominant with basswood and American beech as associates. The understorey is also dominated by sugar maple with hop hornbeam as an associate. Ground cover was not assessable due to a lack of access.
<b>Cultural</b>	
<b>Cultural Meadow (CUM)</b>	
<b>CUM1 Mineral Cultural Meadow</b>	This cultural meadow consists of a maintained tractor path between adjacent agricultural fields and is approximately 20 m wide. Groundcover species (<0.2 m in height) are mosses and dandelions, with asters and goldenrods dominate in the taller (<1 m) groundcover height category. Willows and dogwoods were scattered across the understorey layer. Common reed was mixed in with the cultural meadow vegetation along the southern edge of the community with a small pocket of willows. Soils were much sandier than sampled anywhere else in the feature, and study area, and was likely fill used in the construction of this path.
<b>Swamp</b>	
<b>Deciduous Swamp (SWD)</b>	
<b>SWD3-3 Swamp Maple Mineral Deciduous</b>	This mature, but young along the western edge, swamp community is dominated primarily by swamp maple. Swamp maple is dense in the understorey, although restricted to the young portion of the community. Ground cover was sparse at the

One Team. Infinite Solutions.

**Reference: ELC Tables by Feature;  
Suncor Energy Adelaide Wind Project – Strathroy, Ontario**

ELC TYPE	Community Description
<b>Swamp</b>	time of year surveyed, but did contain asters, running strawberry-bush and dwarf raspberry. Soils are clay dominated and poorly drained.

**Feature 2 (Tile 3)**

ELC TYPE	Community Description
<b>Forest (FO)</b>	
<b>Deciduous Forest (FOD)</b>	
<b>FOD6 Fresh – Moist Sugar Maple Deciduous Forest</b>	This mature deciduous forest was assessed from Cuddy Drive, at a distance due to lack of property access. Sugar maple is visible in the canopy with American elm visible in the sub-canopy. The community gradually slopes from west to east into a meadow marsh. It is possible that the eastern edge of the feature contains swamp based on topographical position, but uncertain due to lack of access.

**Feature 3 (Tile 3)**

ELC TYPE	Community Description
<b>Swamp (SW)</b>	
<b>Deciduous Swamp (SWD)</b>	
<b>SWD Deciduous Swamp</b>	This mature swamp pocket consisted of maple, ashes, and American elm. Assessed from Cuddy Drive, the community is adjacent to a meadow marsh, contains potential hydrophilic tree species, and is positioned at a low topographical point, all indicative of a swamp community.

**Feature 4 (Tile 2)**

ELC TYPE	Community Description
<b>Forest (FO)</b>	
<b>Deciduous Forest (FOD)</b>	
<b>FOD6-5 Fresh – Moist Sugar Maple - Hardwood Deciduous Forest</b>	This mature forest pocket is dominated by sugar maple, particularly along the northeastern upslope portion. Rare occurrences of red ash and willow are visible, particularly as the community slopes to the southwest. Adjacent to Wilson Road a wet pocket with red-osier dogwood and red raspberry exists. A hedgerow and trail continues east of the wooded pocket, dividing agricultural fields.
<b>FOD7-2 Fresh – Moist Ash Lowland Deciduous</b>	This mid-aged riparian hedgerow is dominated by red ash in the canopy and understory with swamp maple and Manitoba maple as minor associates, respectively. Occasional super-canopy cottonwood trees were scattered throughout. Groundcover was primarily vines, with grapevine and, to a lesser

**Reference: ELC Tables by Feature;  
Suncor Energy Adelaide Wind Project – Strathroy, Ontario**

ELC TYPE	Community Description
<b>Forest</b>	extent, cucumber.
<b>FOD9-3 Fresh – Moist Bur Oak Deciduous Forest</b>	This mature riparian forest pocket is dominated by bur oak with ash in the sub-canopy. Dogwood was sparse in the understorey with asters and goldenrods visible in the ground layer with grapevines. ATV trails bisect this community.
<b>Cultural (CU)</b>	
<b>Cultural Thicket (CUT)</b>	
<b>CUT1-8* Hawthorn Cultural Thicket</b>	This young and open community is dominated by hawthorns (>2 m tall) with gray dogwood (<2m tall) as an associate. Ground cover is dominated by various grasses with coltsfoot, asters, goldenrod, and reed canary grass. Sparse American elm was found scattered above the Hawthorn canopy throughout the community.
<b>Swamp (SW)</b>	
<b>Swamp Thicket (SWT)</b>	
<b>SWT2-9 Gray Dogwood Mineral Thicket Swamp</b>	This young riparian community is dominated by gray dogwood with grasses, such as reed canary grass, with and aster and goldenrod border. Manitoba maple is scattered throughout the community above the dogwood layer.

\*ELC code not included in the First Approximation of ELC for Southern Ontario

**Feature 5 (Tile 15)**

ELC TYPE	Community Description
<b>Forest (FO)</b>	
<b>Deciduous Forest (FOD)</b>	
<b>FOD9-4 Fresh – Moist Shagbark Hickory Deciduous Forest</b>	This mid-aged, relatively open forest community is dominated by shagbark hickory with green ash and American basswood as associates. Hop hornbeam and American beech dominate the understorey with scarlet strawberry in the ground layer. Soils were clay and poorly drained.

**Feature 6 (Tile 15)**

ELC TYPE	Community Description
<b>Forest (FO)</b>	
<b>Deciduous Forest (FOD)</b>	
<b>FOD5-2</b>	Mature forest community dominated by sugar maple with American beech as an

**Reference: ELC Tables by Feature;  
Suncor Energy Adelaide Wind Project – Strathroy, Ontario**

<b>ELC TYPE</b>	<b>Community Description</b>
<b>Dry – Fresh Sugar Maple – Beech Deciduous Forest</b>	associate. The understory consists of American beech with hop hornbeam. Ground cover is dominated by sugar maple seedlings with running strawberry-bush and scarlet strawberry.
<b>FOD6-5 Fresh – Moist Sugar Maple – Hardwood Deciduous Forest</b>	This mid-aged forest community was dominated by sugar maple with American basswood, green ash, and shagbark hickory as associates. The understory is dominated by hop hornbeam while the ground layer consists of running strawberry-bush and scarlet strawberry. Soils were imperfectly drained.
<b>FOD9-6* Fresh – Moist Red Maple Deciduous Forest</b>	This mature forest community was dominated by red maple with green ash and shagbark hickory as associates. The understory consists of hop hornbeam, nannyberry, and tartarian honeysuckle. Ground cover was sparse due to the time of year surveyed, but scarlet strawberry is present. Soils are poorly drained mineral soils.
<b>Swamp (SW)</b>	
<b>Deciduous Swamp (SWD)</b>	
<b>SWD 3-3 Swamp Maple Mineral Deciduous Swamp</b>	This mature swamp is dominated by swamp maple with green ash as a minor associate. The understory is sparse and is dominated by silky dogwood. Ground cover consists of sedges and asters.
<b>Feature 7 (Tile 16)</b>	
<b>ELC TYPE</b>	<b>Community Description</b>
<b>Forest (FO)</b>	
<b>Deciduous Forest (FOD)</b>	
<b>FOD9-5 Fresh – Moist Bitternut Hickory Deciduous Forest</b>	Riparian forest dominated by bitternut hickory with white elm and white ash as minor associates in the canopy, while the sub-canopy consists of white elm, American beech, and hop hornbeam. Understorey was raspberry dominated, with violets and Virginia water-leaf in the ground layer.
<b>Cultural (CU)</b>	
<b>Cultural Savannah (CUS)</b>	
<b>CUS1-1 Hawthorn Cultural Savannah</b>	This young and open community is dominated by hawthorn with dogwood in the understory. Goldenrods and avens are present in the ground layer.

**Feature 8 (Tile 5)**

**Reference: ELC Tables by Feature;  
Suncor Energy Adelaide Wind Project – Strathroy, Ontario**

ELC TYPE	Community Description
<b>Forest (FO)</b>	
<b>Deciduous Forest (FOD)</b>	
<b>FOD4-1 Dry – Fresh Beech Deciduous Forest</b>	Mature beech forest with sugar maple as a minor associate. Evidence suggests historical logging, potentially contributing to the lack of sugar maple. Understorey is dominated by beech with a ground layer consisting of running strawberry-bush. Soils were loamy very fine sand and well drained.
<b>FOD5-2 Dry – Fresh Sugar Maple – Beech Deciduous Forest</b>	Mature forest community dominated by sugar maple with American beech and American basswood as associates. Hop hornbeam and beech is present in the understorey with running strawberry-bush and zig-zag goldenrod in the ground layer. Soils were variable and poorly drained (6), as demonstrated by a small green ash swamp inclusion. Logging evidence, possibly high-grading, and car dumping is evident in the woodlot.

**Feature 9 (Tile 6)**

ELC TYPE	Community Description
<b>Swamp (SW)</b>	
<b>Deciduous Swamp (SWD)</b>	
<b>SWD3-3 Swamp Maple Mineral Deciduous Swamp</b>	This mature swamp community is dominated by swamp maple with American elm in the understorey. Very little ground vegetation was visible during the survey, likely attributable to time of year.

**Feature 10 (Tile 6)**

ELC TYPE	Community Description
<b>Cultural (CU)</b>	
<b>Cultural Thicket (CUT)</b>	
<b>CUT1-8* Hawthorn Cultural Thicket</b>	This cultural thicket is dominated by hawthorns with occasional taller green ash, willows, and elms scattered throughout.
<b>Marsh (MA)</b>	
<b>Meadow Marsh (MAM)</b>	
<b>MAM2 Mineral Meadow</b>	This open riparian community was dominated by various grasses, including some reed canary grass.

**Reference: ELC Tables by Feature;  
Suncor Energy Adelaide Wind Project – Strathroy, Ontario**

ELC TYPE	Community Description
<b>Marsh</b>	

\*ELC code not included in the First Approximation of ELC for Southern Ontario

**Feature 11 (Tile 5-6)**

ELC TYPE	Community Description
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**Forest (FO)**

**Deciduous Forest (FOD)**

<b>FOD7 Fresh – Moist Lowland Deciduous Forest</b>	This portion of feature 11 was assessed from Cuddy Drive, consisting of elm, maple and oak in the canopy, with buckthorn and dogwood in the understory.
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<b>FOD7-1 Fresh – Moist White Elm Lowland Deciduous Forest</b>	This mature floodplain forest, located on the western edge of the feature, consists of sugar maple (restricted to the banks) with white elm and willow also on the banks and dominant in the lower-lying areas. Hawthorn species are restricted to the edges of the community with dogwoods (gray and red-osier) dominant in the understory. Ground cover consisted of red raspberry with riverbank grape and asters. Cover was variable throughout the community, varying from meadow marsh to swamp thicket, swamp, lowland forest, and upland forest on the creek banks. An ATV trail traversed the community. Soils along the floodplain are clay and very poorly drained, while soils on the banks had a greater silt component but were still poorly drained.
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\*ELC code not included in the First Approximation of ELC for Southern Ontario

**Feature 12 (Tile 6)**

ELC TYPE	Community Description
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**Forest (FO)**

**Deciduous Forest (FOD)**

<b>FOD7-1 Fresh – Moist White Elm Lowland Deciduous Forest</b>	This small and young riparian community was assessed from the road due to lack of access. White elm is present in the canopy with swamp maple and dogwood in the understory.
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**Cultural (CU)**

**Cultural Plantation (CUP)**

<b>CUP3-2 White Pine Coniferous Planation</b>	This young plantation was dominated by planted white pine with sugar maple as an associate in the canopy (>10 m) and with eastern white cedar and Norway maple in the understory (2-10 m). Grasses were visible in the ground layer from
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**Reference: ELC Tables by Feature;  
Suncor Energy Adelaide Wind Project – Strathroy, Ontario**

ELC TYPE	Community Description
	the edge of the community in the open areas. This community is associated with a residence and storage of farm equipment.

**Feature 13 (Tile 9)**

ELC TYPE	Community Description
<b>Cultural (CU)</b>	
<b>Cultural Thicket (CUT)</b>	
<b>CUT1-8* Hawthorn Cultural Thicket</b>	Dominated by dense hawthorns, this community was assessed from the property boundary due to lack of access. Occasional elm trees were visible in the super-canopy above.

\*ELC code not included in the First Approximation of ELC for Southern Ontario

**Feature 14 (Tile 9)**

ELC TYPE	Community Description
<b>Cultural (CU)</b>	
<b>Cultural Thicket (CUT)</b>	
<b>CUT1-8* Hawthorn Cultural Thicket</b>	This open riparian community is dominated by sparse hawthorns with occasional elm and basswood trees in the super-canopy. Understorey consists of red raspberry and sparse gray dogwoods. Ground cover consisted of strawberry and currants with asters and goldenrods.

\*ELC code not included in the First Approximation of ELC for Southern Ontario

**Feature 15 (Tile 9, 11)**

ELC TYPE	Community Description
<b>Forest (FO)</b>	
<b>Mixed Forest (FOM)</b>	
<b>FOM2-1 Dry – Fresh White Pine – Oak Mixed Forest</b>	A mid-aged community consisting of vegetation characteristics of multiple age classes, moisture regimes, and influences (i.e., cultural and natural). Red oak dominated with swamp maple and white pine as associates. Gray dogwood dominated the understorey with strawberry visible in the ground layer from the property and road boundaries.

**Feature 16 (Tile 11)**



**Reference: ELC Tables by Feature;  
Suncor Energy Adelaide Wind Project – Strathroy, Ontario**

ELC TYPE	Community Description
<b>Marsh (MA)</b>	
<b>Meadow Marsh (MAM)</b>	
<b>MAM2-10 Forb mineral Meadow Marsh</b>	Open riparian meadow marsh consisting of vegetation species characteristics of both cultural meadows and meadow marshes. Asters, goldenrods, and various grasses and sedges dominate the ground cover. Hawthorn and apple trees are present. A pond (OA) is located within this community and a few scattered pockets of common reed are also present.

**Feature 17 (Tile 11)**

ELC TYPE	Community Description
<b>Marsh (MA)</b>	
<b>Meadow Marsh (MAM)</b>	
<b>MAM2-10 Forb Mineral Meadow Marsh</b>	This open riparian meadow marsh was assessed from the road. Some cattails were visible with goldenrods and asters. Occasional hawthorn and willows are visible in the understory.

**Feature 18 (Tile 11)**

ELC TYPE	Community Description
<b>Forest (FO)</b>	
<b>Deciduous Forest (FOD)</b>	
<b>FOD7 Fresh – Moist Lowland Deciduous Forest</b>	This mid-age forest consists of white elm, sugar maple, shagbark hickory and ash species. Assessed from the road, gray dogwood was also visible in the understory.

**Feature 19 (Tile 11, 13)**

ELC TYPE	Community Description
<b>Forest (FO)</b>	
<b>Deciduous Forest (FOD)</b>	
<b>FOD6 Fresh – Moist Sugar Maple Deciduous Forest</b>	This mature forest consists of sugar maple with ash and white elm as associates. Assessed from the road, hop hornbeam was also visible in the understory.

**Feature 20 (Tile 13)**

**Reference: ELC Tables by Feature;  
Suncor Energy Adelaide Wind Project – Strathroy, Ontario**

ELC TYPE	Community Description
<b>Forest (FO)</b>	
<b>Deciduous Forest (FOD)</b>	
<b>FOD9-4 Fresh – Moist Shagbark Hickory Deciduous Forest</b>	A mature forest community dominated by shagbark hickory with basswood, green ash, hop hornbeam, and blue beech as associates. The understorey consists of green ash and sugar maple with prickly ash. Running strawberry-bush is present in the ground layer. Soils were silty loam and poorly drained.
<b>Cultural (CU)</b>	
<b>Cultural Thicket (CUT)</b>	
<b>CUT1-8* Hawthorn Cultural Thicket</b>	Dominated by hawthorn, this community has scattered green ash, white elm, and poplar super-canopy associates. Tartarian honeysuckle is present in the understorey and asters and sedges are found in the ground layer. Soils are silty and imperfectly drained.
<b>Swamp (SW)</b>	
<b>Deciduous Swamp (SWD)</b>	
<b>SWD2-2 Green Ash Mineral Deciduous Swamp</b>	This mature swamp is dominated by green ash with swamp maple as an associate. Green ash and swamp maple are also dominant in the understorey, with prickly ash as a minor associate. Scarlet strawberry is present in the ground layer and pooling water is apparent.

**Feature 21 (Tile 13)**

ELC TYPE	Community Description
<b>Forest (FO)</b>	
<b>Deciduous Forest (FOD)</b>	
<b>FOD7-1 Fresh – Moist White Elm Lowland Deciduous Forest</b>	Open riparian community assessed from roadway and consisting of white elm and bur oak with gray dogwood in the understorey. Ground cover was not assessed due to a lack of property access.
<b>Meadow (MA)</b>	
<b>Meadow Marsh (MAM)</b>	
<b>MAM2-10 Forb Mineral Meadow Marsh</b>	This open riparian community is dominated by hawthorn and dogwoods with goldenrods, asters, and reed canary grass in the ground layer.

**Reference: ELC Tables by Feature;  
Suncor Energy Adelaide Wind Project – Strathroy, Ontario**

**Feature 22 (Tile 13)**

ELC TYPE	Community Description
<b>Forest (FO)</b>	
<b>Deciduous Forest (FOD)</b>	
<b>FOD5-3 Dry – Fresh Sugar Maple – Oak Deciduous Forest</b>	Sugar maple dominated this mature community with oak and shagbark hickory as associates. Hop hornbeam and sugar maple dominate the understorey with running strawberry-bush in the ground layer. Soils were well drained silty loams.
<b>FOD9-4 Fresh – Moist Shagbark Hickory Deciduous Forest</b>	This mature forest community is dominated by shagbark hickory with green ash as an associate. Hop hornbeam dominates the understorey while ground cover not assessed due to a lack of access.
<b>Swamp (SW)</b>	
<b>Deciduous Swamp (SWD)</b>	
<b>SWD2-2 Green Ash Mineral Deciduous Swamp</b>	Mature swamp dominated by green ash with shagbark hickory as a minor associate. Tartarian honeysuckle dominates the understorey with sedges, scarlet strawberry, and asters in the ground layer.
<b>Thicket Swamp (SWT)</b>	
<b>SWT2 Mineral Thicket Swamp</b>	This open swamp thicket was dominated by gray dogwood with occasional white elms in the super canopy.

**Feature 23 (Tile 14)**

ELC TYPE	Community Description
<b>Forest (FO)</b>	
<b>Deciduous Forest (FOD)</b>	
<b>FOD9-4 Fresh – Moist Shagbark Hickory Deciduous Forest</b>	This mature forest community is dominated by shagbark hickory with green ash and bur oak as associates. Hop hornbeam dominates the understorey while ground cover not assessed due to a lack of access.

**Feature 24 (Tile 10)**

ELC TYPE	Community Description
<b>Forest (FO)</b>	

**Reference: ELC Tables by Feature;  
Suncor Energy Adelaide Wind Project – Strathroy, Ontario**

ELC TYPE	Community Description
<b>Deciduous Forest (FOD)</b>	
<b>CUS1-1 Hawthorn Cultural Savannah</b>	This small cultural savannah was assessed from Robotham Road and bordered a wooded area to the west. Hawthorns were present in the understory with ground cover not assessed due to lack of access.

Those communities ranked by the NHIC are provincially designated S5 (common and secure in Ontario).

**SUNCOR ENERGY ADELAIDE WIND POWER PROJECT**

2011 ELC Plant List

LATIN NAME		COMMON NAME	COEFFICIENT OF CONSERVATISM	WETNESS INDEX	WEEDINESS INDEX	PROVINCIAL STATUS	OMNR STATUS	COSEWIC STATUS	GLOBAL STATUS	LOCAL STATUS MIDD	PRAIRIE AFFINITY
	LOCAL STATUS SOURCE LAST UPDATE/ INITIALS									OLDHAM 1993	
<b><u>PTERIDOPHYTES</u></b>		<b><u>FERNS &amp; ALLIES</u></b>									
<b>Dryopteridaceae</b>		<b>Wood Fern Family</b>									
<i>Onoclea</i>	<i>sensibilis</i>	Sensitive Fern	4	-3		S5			G5	X	
<i>Polystichum</i>	<i>acrostichoides</i>	Christmas Fern	5	5		S5			G5	X	
<b><u>GYMNOSPERMS</u></b>		<b><u>CONIFERS</u></b>									
<b>Cupressaceae</b>		<b>Cedar Family</b>									
<i>Thuja</i>	<i>occidentalis</i>	Eastern White Cedar	4	-3		S5			G5	X	
<b>Pinaceae</b>		<b>Pine Family</b>									
<i>Picea</i>	<i>abies</i>	Norway Spruce		5	-1	SE3			G?	I	
<i>Picea</i>	<i>glauca</i>	White Spruce	6	3		S5			G5	I	
<i>Pinus</i>	<i>strobus</i>	Eastern White Pine	4	3		S5			G5	X	
<b><u>DICOTYLEDONS</u></b>		<b><u>DICOTS</u></b>									
<b>Aceraceae</b>		<b>Maple Family</b>									
<i>Acer</i>	<i>negundo</i>	Manitoba Maple	0	-2		S5			G5	C	
<i>Acer</i>	<i>rubrum</i>	Red Maple	4	0		S5			G5	C	
<i>Acer</i>	<i>saccharinum</i>	Silver Maple	5	-3		S5			G5	C	
<i>Acer</i>	<i>saccharum</i> ssp. <i>saccharum</i>	Sugar Maple	4	3		S5			G5T?	C	
<i>Acer</i>	<i>saccharum</i> ssp. <i>nigrum</i>	Black Maple	7	3		S4?			G5Q	C	
<i>Acer X</i>	<i>freemanii</i>	Freeman's Maple									
<b>Anacardiaceae</b>		<b>Sumac or Cashew Family</b>									
<i>Rhus</i>	<i>radicans</i> ssp. <i>negundo</i>	Poison-ivy	5	-1		S5			G5T	X	
<b>Apiaceae</b>		<b>Carrot or Parsley Family</b>									

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<i>Daucus</i>	<i>carota</i>	Wild Carrot		5	-2	SE5			G?	IC	
<i>Sium</i>	<i>suave</i>	Hemlock Water-parsnip	4	-5		S5			G5	C	
<b>Aristolochiaceae</b>		<b>Duchman's-pipe Family</b>									
<i>Asarum</i>	<i>canadense</i>	Wild Ginger	6	5		S5			G5	C	
<b>Asclepiadaceae</b>		<b>Milkweed Family</b>									
<i>Asclepias</i>	<i>syriaca</i>	Common Milkweed	0	5		S5			G5	C	
<b>Asteraceae</b>		<b>Composite or Aster Family</b>									
<i>Achillea</i>	<i>millefolium</i> ssp. <i>millefolium</i>	Common Yarrow		3	-1	SE?			G5T?		
<i>Arctium</i>	<i>minus</i>	Common Burdock		5	-2	SE5			G?T?	IC	
<i>Aster</i>	<i>lanceolatus</i> ssp. <i>lanceolatus</i>	Tall White Aster	3	-3		S5			G5T?	C	
<i>Centaurea</i>	<i>biebersteinii</i>	Spotted Knapweed		5	-3	SE5			G?	I	
<i>Cichorium</i>	<i>intybus</i>	Chicory		5	-1	SE5			G?	IC	
<i>Cirsium</i>	<i>arvense</i>	Canada Thistle		3	-1	SE5			G?	IC	
<i>Inula</i>	<i>helenium</i>	Elecampane		5	-2	SE5			G?	I	
<i>Solidago</i>	<i>altissima</i> var. <i>altissima</i>	Tall Goldenrod	1	3		S5				U	
<i>Solidago</i>	<i>flexicaulis</i>	Zig-zag Goldenrod	6	3		S5			G5	X	
<i>Symphotrichum</i>	<i>novae-angliae</i>	New England Aster	2	-3		S5			G5	C	
<i>Taraxacum</i>	<i>officinale</i>	Common Dandelion		3	-2	SE5			G5	IC	
<i>Tussilago</i>	<i>farfara</i>	Coltsfoot		3	-2	SE5			G?	IC	
<b>Betulaceae</b>		<b>Birch Family</b>									
<i>Carpinus</i>	<i>caroliniana</i> ssp. <i>virginiana</i>	Blue Beech	6	0		S5			G5T	C	
<i>Ostrya</i>	<i>virginiana</i>	Hop Hornbeam	4	4		S5			G5	C	
<b>Caprifoliaceae</b>		<b>Honeysuckle Family</b>									
<i>Lonicera</i>	<i>tatarica</i>	Tartarian Honeysuckle		3	-3	SE5			G?	I	
<i>Sambucus</i>	<i>canadensis</i>	Common Elderberry	5	-2		S5			G5	X	
<i>Viburnum</i>	<i>lentago</i>	Nannyberry	4	-1		S5			G5	C	
<i>Viburnum</i>	<i>rafinesquianum</i>	Downy Arrow-wood	7	5		S5			G5	X	
<i>Viburnum</i>	<i>trilobum</i>	High Bush Cranberry	5	-3		S5			G5T5	X	

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<b>Celastraceae</b>		<b>Staff-tree Family</b>									
<i>Euonymus</i>	<i>obovata</i>	Running Strawberry-bush	6	5		S5			G5	C	
<b>Cornaceae</b>		<b>Dogwood Family</b>									
<i>Cornus</i>	<i>amomum</i> ssp. <i>obliqua</i>	Silky Dogwood	5	-4		S5			G5T?	X	
<i>Cornus</i>	<i>foemina</i> ssp. <i>racemosa</i>	Red Panicked Dogwood	2	-2		S5			G5?	X	
<i>Cornus</i>	<i>stolonifera</i>	Red-osier Dogwood	2	-3		S5			G5	C	
<b>Cucurbitaceae</b>		<b>Gourd Family</b>									
<i>Echinocystis</i>	<i>lobata</i>	Prickly Cucumber	3	-2		S5			G5	X	
<b>Dipsacaceae</b>		<b>Teasel Family</b>									
<i>Cephalaria</i>	<i>gigantea</i>	Yellow Cephalaria				SE1			G?		
<b>Euphorbiaceae</b>		<b>Spurge Family</b>									
<i>Euphorbia</i>	<i>esula</i>	Leafy Spurge		5	-2	SE5			G5	I	
<b>Fabaceae</b>		<b>Pea Family</b>									
<i>Trifolium</i>	<i>pratense</i>	Red Clover		2	-2	SE5			G?	I	
<b>Fagaceae</b>		<b>Beech Family</b>									
<i>Fagus</i>	<i>grandifolia</i>	American Beech	6	3		S5			G5	C	
<i>Quercus</i>	<i>alba</i>	White Oak	6	3		S5			G5	C	
<i>Quercus</i>	<i>macrocarpa</i>	Bur Oak	5	1		S5			G5	C	
<i>Quercus</i>	<i>rubra</i>	Red Oak	6	3		S5			G5	C	
<b>Geraniaceae</b>		<b>Geranium Family</b>									
<i>Geranium</i>	<i>robertianum</i>	Herb-robert		5	-2	SE5			G5	IC	
<b>Grossulariaceae</b>		<b>Currant Family</b>									
<i>Ribes</i>	<i>americanum</i>	Wild Black Currant	4	-3		S5			G5	C	
<i>Ribes</i>	<i>cynosbati</i>	Prickly Gooseberry	4	5		S5			G5	C	
<b>Hydrophyllaceae</b>		<b>Water-leaf Family</b>									

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<i>Hydrophyllum</i>	<i>virginianum</i>	Virginia Water-leaf	6	-2		S5			G5	C	
<b>Juglandaceae</b>		<b>Walnut Family</b>									
<i>Carya</i>	<i>cordiformis</i>	Bitternut hickory	6	0		S5			G5	X	
<i>Carya</i>	<i>ovata</i> var. <i>ovata</i>	Shagbark Hickory	6	3		S5			G5	X	
<b>Lamiaceae</b>		<b>Mint Family</b>									
<i>Lycopus</i>	<i>americanus</i>	Cut-leaved Water-horehound	4	-5		S5			G5	C	
<b>Oleaceae</b>		<b>Olive Family</b>									
<i>Fraxinus</i>	<i>americana</i>	White Ash	4	3		S5			G5	C	
<i>Fraxinus</i>	<i>nigra</i>	Black Ash	7	-4		S5			G5	X	
<i>Fraxinus</i>	<i>pennsylvanica</i>	Red Ash	3	-3		S5			G5	C	
<b>Orobanchaceae</b>		<b>Broom-rape Family</b>									
<i>Epifagus</i>	<i>virginiana</i>	Beech-drops	6	5		S5			G5	C	
<b>Primulaceae</b>		<b>Primrose Family</b>									
<i>Lysimachia</i>	<i>nummularia</i>	Moneywort		-4	-3	SE5			G?	I	
<b>Rhamnaceae</b>		<b>Buckthorn Family</b>									
<i>Rhamnus</i>	<i>cathartica</i>	Common Buckthorn		3	-3	SE5			G?	IC	
<b>Rosaceae</b>		<b>Rose Family</b>									
<i>Agrimonia</i>	<i>gryposepala</i>	Tall Hairy Agrimony	2	2		S5			G5	C	
<i>Crataegus</i>	<i>species</i>	Hawthorn species									
<i>Fragaria</i>	<i>virginiana</i> ssp. <i>virginiana</i>	Scarlet Strawberry	2	1		SU			G5T?	C	
<i>Geum</i>	<i>aleppicum</i>	Yellow Avens	2	-1		S5			G5	X	
<i>Malus</i>	<i>pumila</i>	Common Crabapple		5	-1	SE5			G5	I	
<i>Prunus</i>	<i>serotina</i>	Black Cherry	3	3		S5			G5	C	
<i>Rosa</i>	<i>multiflora</i>	Multiflora Rose		3	-3	SE4			G?	I	
<i>Rubus</i>	<i>alleggheniensis</i>	Alleghany Blackberry	2	2		S5			G5	C	
<i>Rubus</i>	<i>idaeus</i> ssp. <i>strigosus</i>	Wild Red Raspberry	0	-2		S5			G5T5	X	
<i>Rubus</i>	<i>occidentalis</i>	Thimble-berry	2	5		S5			G5	X	



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<i>Rubus</i>	<i>pubescens</i>	Dwarf Raspberry	4	-4		S5			G5	X	
<i>Spiraea</i>	<i>alba</i>	Narrow-leaved Meadow-sweet	3	-4		S5			G5	X	
<b>Rutaceae</b>		<b>Rue Family</b>									
<i>Zanthoxylum</i>	<i>americanum</i>	American Prickly-ash	3	5		S5			G5	C	
<b>Salicaceae</b>		<b>Willow Family</b>									
<i>Populus</i>	<i>deltoides</i> ssp. <i>deltoides</i>	Eastern Cottonwood	4	-1		SU			G5T5	X	
<i>Populus</i>	<i>tremuloides</i>	Trembling Aspen		0		S5			G5	X	
<i>Salix</i>	<i>species</i>	Willow species									
<i>Salix</i>	<i>alba</i>	White Willow			-2	SE4			G5	I	
<i>Salix</i>	<i>fragilis</i>	Crack Willow		-1	-3	SE5			G?	I	
<b>Solanaceae</b>		<b>Nightshade Family</b>									
<i>Solanum</i>	<i>dulcamara</i>	Bitter Nightshade		0	-2	SE5			G?	IC	
<b>Tiliaceae</b>		<b>Linden Family</b>									
<i>Tilia</i>	<i>americana</i>	American Basswood	4	3		S5			G5	C	
<b>Ulmaceae</b>		<b>Elm Family</b>									
<i>Celtis</i>	<i>occidentalis</i>	Common Hackberry	8	1		S4			G5	X	
<i>Ulmus</i>	<i>americana</i>	White Elm	3	-2		S5			G5?	X	
<b>Urticaceae</b>		<b>Nettle Family</b>									
<i>Urtica</i>	<i>dioica</i> ssp. <i>gracilis</i>	American Stinging Nettle	2	-1		S5			G5T?	C	
<b>Violaceae</b>		<b>Violet Family</b>									
<i>Viola</i>	<i>species</i>	Violet species									
<b>Vitaceae</b>		<b>Grape Family</b>									
<i>Vitis</i>	<i>riparia</i>	Riverbank Grape	0	-2		S5			G5	C	
<b>MONOCOTYLEDONS</b>		<b>MONOCOTS</b>									
<b>Alismataceae</b>		<b>Water-plantain Family</b>									

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<i>Alisma</i>	<i>plantago-aquatica</i>	Common Water-plantain	3	-5		S5			G5	C	
<b>Poaceae</b>		<b>Grass Family</b>									
<i>Bromus</i>	<i>inermis</i> ssp. <i>inermis</i>	Awnless Brome		5	-3	SE5			G4G5T?	IC	
<i>Echinochloa</i>	<i>crusgalli</i>	Common Barnyard Grass		-3	-1	SE5			G?	IC	
<i>Phalaris</i>	<i>arundinacea</i>	Reed Canary Grass	0	-4		S5			G5	X	
<i>Phleum</i>	<i>pratense</i>	Timothy		3	-1	SE5			G?	IC	
<i>Phragmites</i>	<i>australis</i>	Common Reed	0	-4		S5			G5	X	
<i>Setaria</i>	<i>viridis</i>	Green Foxtail			-1	SE5			G?	I	
<b>FLORISTIC SUMMARY &amp; ASSESSMENT</b>											
<b>Species Diversity</b>											
Total Species:		<b>89</b>									
Native Species:		<b>63</b>	71%								
Exotic Species		<b>26</b>	29%								
Regionally Significant Species		0	0%								
Locally Significant Species		0	0%								
S1-S3 Species		0	0%								
S4 Species		2	3%								
S5 Species		59	97%								
<b>Co-efficient of Conservatism and Floristic Quality Index</b>											
Co-efficient of Conservatism (CC) (average)		<b>3.9</b>									
CC 0 to 3	<i>lowest sensitivity</i>	24	39%								
CC 4 to 6	<i>moderate sensitivity</i>	34	55%								
CC 7 to 8	<i>high sensitivity</i>	4	6%								
CC 9 to 10	<i>highest sensitivity</i>	0	0%								
<b>Floristic Quality Index (FQI)</b>		<b>30</b>									
<b>Presence of Weedy &amp; Invasive Species</b>											
mean weediness		<b>-2.0</b>									
weediness = -1	<i>low potential invasiveness</i>	8	32%								
weediness = -2	<i>moderate potential invasiveness</i>	10	40%								

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<i>weediness = -3</i>	<i>high potential invasiveness</i>	7	28%								
<b>Presence of Wetland Species</b>											
<i>average wetness value</i>		<b>0.9</b>									
<i>upland</i>		19	22%								
<i>facultative upland</i>		25	29%								
<i>facultative</i>		14	16%								
<i>facultative wetland</i>		25	29%								
<i>obligate wetland</i>		3	3%								