

VASCULAR PLANT CHECKSHEET

Location:

Date:

November 7, 2011

Observer:

J. Krumholz

Job Number:

| DICOT HERBS | | | | | | MONOCOT HERBS | | | | | | | | | | | | | | | | | |
|----------------------------|---|---|---|---|---|----------------------------|---|---|---|---|---|--------------------------|---|---|---|---|---|--------------------------|--|--|--|---|--|
| 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 | | | | | | |
| | | X | | | | Erigeron annuus | | | | | | Plantago lanceolata | | | | | | Alisma plantago-aquatica | | | | | |
| Achillea millefolium | | | | | | Erigeron philadelphicus | | | | | | Plantago major | | | X | | | Allium tricoccum | | | | | |
| Actaea pachypoda | | | | | | Erigeron strigosus | | | | | | Plantago rugelii | | | | | | Allium | | | | | |
| Actaea rubra | | | | | | Erysimum cheiranthoides | | | | | | Podophyllum peltatum | | | | | | Arisaema triphyllum | | | | | |
| Agalinus | | | | | | Eupatorium maculatum | | | | | | Polygonum | | | | | | Asparagus officinalis | | | | | |
| Agrimonia gryposepala | | X | X | | | Eupatorium perfoliatum | | | X | | | Polygonum | | | | | | Calla palustris | | | | | |
| Alliaria petiolaris | | X | X | | | Eupatorium rugosum | | | | | | Polygonum | | | | | | Clintonia borealis | | | | | |
| Amaranthus retrofractus | | | | | | Euphorbia | | | | | | Polygonum lapathifolium | | | X | | | Corwallaria majus | | | | | |
| Ambrosia artemisiifolia | | | | | | Euthamia graminifolia | | | | X | | Polygonum persicaria | | | X | | | Cypripedium calceolus | | | | | |
| Amphicarpaea bracteata | | | | | | Fragaria virginiana | | | X | | | Potentilla | | | | | | Elodea canadensis | | | | | |
| Anaphalis margaritacea | | | | | | Fragaria vesca | | | | | | Potentilla norvegica | | | | | | Epipactis helleborine | | | | X | |
| Anemone | | | | | | Galeopsis tetrahit | | | | | | Potentilla recta | | | X | X | | Erythronium americanum | | | | | |
| Anemone canadensis | | | | | | Galium | | | | | | Prenanthes alba | | | | | | Hemerocallis fulva | | | | | |
| Anemone virginiana | | | | | | Galium | | | | | | Prunella vulgaris | | | | | | Iris versicolor | | | | X | |
| Antennaria neglecta | | | | | | Galium palustre | | | | | | Pyrola elliptica | | | X | | | Lemna minor | | | | | |
| Apocynum androsaemifolium | | | | | | Galium triflorum | | | X | | | Ranunculus | | | | | | Lemna trisulca | | | | | |
| Apocynum cannabinum | | | | | | Geranium maculatum | | | | | | Ranunculus abortivus | | | | | | Lilium | | | | | |
| Aquilegia canadensis | | | | | | Geranium robertianum | | | | X | | Ranunculus acris | | | | | | Mianthemum canadense | | | | | |
| Aralia nudicaulis | | | | | | Geum aleppicum | | | | | | Rumex acetosella | | | | | | Mianthemum racemosa | | | | | |
| Arctium minus | | X | X | | | Geum canadense | | | X | X | | Rumex crispus | | | | | | Mianthemum stellata | | | | | |
| Artemisia | | | | | | Geum urbanum | | | X | | | Rumex | | | | | | Patanthera | | | | | |
| Asarum canadense | | | | | | Glechoma hederacea | | | | | | Rumex | | | | | | Pontederia cordata | | | | | |
| Asclepias incarnata | | | | | | Hepatica acutiloba | | | | | | Sanguinaria canadensis | | | | | | Polygonatum pubescens | | | | | |
| Asclepias syriaca | | | | | | Heperis matronalis | | | | | | Sanicula marilandica | | | | | | Potamogeton crispus | | | | | |
| Aster | | | | | | Hieracium aurantiacum | | | | | | Saponaria officinalis | | | | | | Potamogeton pectinatus | | | | | |
| Aster cordifolius | | | | | | Hieracium caespitosum | | | | | | Satureja vulgaris | | | | | | Potamogeton | | | | | |
| Aster ericoides | | | | | | Hieracium | | | | | | Scutellaria galericulata | | | | | | Potamogeton | | | | | |
| Aster lanceolatus | | X | X | | | Hydrophyllum virginianum | | | | | | Sium suave | | | | | | Potamogeton | | | | | |
| Aster lateriflorus | | X | | | | Hypericum perforatum | | | | | | Solanum dulcamara | | | X | X | | Sagittaria latifolia | | | | | |
| Aster macrophyllus | | | | | | Impatiens capensis | | | X | | | Solidago | | | | | | Sisyrinchium montanum | | | | | |
| Aster novae-angliae | | | X | | | Inula helenium | | | | | | Solidago altissima | | | | | | Smilax herbacea | | | | | |
| Aster puniceus | | | | | | Lactuca | | | | | | Solidago caesia | | | | | | Spiranthes cernua | | | | | |
| Barbarea vulgaris | | | | | | Lapsana canadensis | | | | | | Solidago canadensis | | | X | X | | Spirodela polyrrhiza | | | | | |
| Bidens cernua | | X | | | | Lapsana communis | | | | | | Solidago flexicaulis | | | | X | | Streptopus roseus | | | | | |
| Bidens frondosa | | | | | | Leonurus cardiaca | | | | | | Solidago gigantea | | | | X | | Trillium erectum | | | | | |
| Boehmeria cylindrica | | X | | | | Lepidium <i>campesi</i> | | | X | | | Solidago nemoralis | | | | X | | Trillium grandiflorum | | | | | |
| Calla palustris | | | | | | Linaria vulgaris | | | | | | Solidago rugosa | | | | | | Uvularia grandiflora | | | | | |
| Calystegia sepium | | | | | | Lithospermum officinale | | | | | | Sonchus arvensis | | | | | | | | | | | |
| Cardamine diphylla | | | | | | Lobelia | | | | | | Sonchus asper | | | X | | | | | | | | |
| Cardamine | | | | | | Lobelia inflata | | | | | | Stellaria | | | | | | | | | | | |
| Caulophyllum thalictroides | | | | | | Lotus corniculatus | | | X | | | Tanacetum vulgare | | | | | | | | | | | |
| Cerastium fontanum | | | | | | Lycopus americanus | | | | | | Tanacetum officinale | | | X | | | | | | | | |
| Ceratophyllum demersum | | | | | | Lycopus <i>multiflorus</i> | | | X | | | Thalictrum diolum | | | | | | | | | | | |
| Chalidonium majus | | | | | | Lysimachia ciliata | | | | | | Thalictrum pubescens | | | | | | | | | | | |
| Chenopodium album | | | | | | Lithrum salicaria | | | | | | Tiarelia cordifolia | | | X | | | | | | | | |
| Chrysanth. leucanthemum | | | | | | Medicago lupulina | | | X | | | Tragopogon pratensis | | | | | | | | | | | |
| Cichorium intybus | | | | | | Medicago sativum | | | | | | Trientalis borealis | | | | | | | | | | | |
| Cicuta | | | | | | Melilotus alba | | | | | | Trifolium | | | | | | | | | | | |
| Circaea leutetiana | | X | X | | | Mentha arvensis | | | X | | | Trifolium pratense | | | | X | | | | | | | |
| Cirsium arvense | | X | X | | | Mimulus ringens | | | | | | Trifolium repens | | | | | | | | | | | |
| Cirsium vulgare | | | | | | Mimulus ringens | | | | | | Tussilago farfara | | | | | | | | | | | |
| Clematis virginiana | | | | | | Mitella diphylla | | | | | | Urtica dioica | | | | X | | | | | | | |
| Clintonia borealis | | | | | | Moranda fistulosa | | | | | | Utricularia vulgaris | | | | | | | | | | | |
| Coryza canadensis | | | X | | | Mycosotis | | | | | | Verbascum thapsus | | | X | | | | | | | | |
| Coronilla varia | | | | | | Nasturtium officinale | | | | | | Verbena hastata | | | | | | | | | | | |
| Cynanchum roscicum | | | | | | Nepeta calaria | | | | | | Verbena urticifolia | | | | | | | | | | | |
| Cynoglossum officinale | | | | | | Nuphar variegatum | | | | | | Veronica | | | | | | | | | | | |
| Daucus carota | | | X | | | Nymphaea odorata | | | | | | Veronica officinalis | | | | | | | | | | | |
| Desmodium canadense | | | | | | Oenothera biennis | | | X | | | Vicia cracca | | | | | | | | | | | |
| Dianthus armeria | | | | | | Oenothera | | | | | | Vicia tetrasperma | | | | | | | | | | | |
| Dipsacus fulviorum | | X | X | | | Oxalis stricta | | | | | | Viola | | | | | | | | | | | |
| Echinocystis lobata | | | | | | Phytolacca heterophylla | | | | | | Viola <i>consoci</i> | | | X | | | | | | | | |
| Echium vulgare | | | | | | Phytolacca <i>amer</i> | | | X | | | Viola pubescens | | | | | | | | | | | |
| Epilobium | | | | | | | | | | | | Viola sororia | | | X | X | | | | | | | |
| Epilobium ciliatum | | | | | | | | | | | | Scutellaria <i>later</i> | | | X | | | | | | | | |
| Epilobium hirsutum | | | | | | | | | | | | Sisymbrium <i>nigrum</i> | | | X | | | | | | | | |
| Epilobium parviflorum | | | | | | | | | | | | | | | | | | | | | | | |
| <i>Chalote glabrum</i> | | X | | | | | | | | | | | | | | | | | | | | | |

- 1: 291 Woodlot
- 2: 300 Woodlot
- 3: 300 Old Field

- 4: _____
- 5: _____
- 6: _____

SITE LOCATIONS

| I 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 | X | | | | | Agropyron repens | | | | | |
| Larix laricina | | | | | | Rubus idaeus | X | | | | | Alopecurus | | | | | |
| Picea abies | | | | | | Rubus occidentalis | X | | | | | Bromus inermis | | | | X | |
| 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 | | X | | | | Salix bebbiana | | | | | | Carex blanda | | | | X | |
| Tsuga canadensis | | X | | | | + Salix discolor | | | | | | Carex gracillima | | | | X | |
| | | | | | | Salix eriocephala | | | | | | Carex granularis | | | | | |
| | | | | | | Salix exigua | | | | | | Carex hystericina | | | | | |
| | | | | | | Salix lucida | | | | | | Carex pensylvanica | | | | | |
| | | | | | | Salix petiolaris | | | | | | Carex radiata | | | | X | |
| TREES and SHRUBS | | | | | | + Salix purpurea | | | | | | Carex retrorsa | | | | X | |
| Acer negundo | | | | | | Salix x rubens | | | | | | Carex stipata | | | | | |
| Acer rubrum | | X | | | | + Salix | | | | | | Carex stricta | | | | | |
| Acer saccharinum | X | X | | | | Sambucus canadensis | X | | | | | Carex vulpinoidea | | | | | |
| Acer saccharum | | X | | | | Sambucus racemosa | | | | | | Carex | | | | X | |
| Acer spicatum | | | | | | Sorbus aucuparia | | | | | | Carex | | | | X | |
| Alnus rugosa | | | | | | Spiraea alba | | | | | | Carex | | | | | |
| Amelanchier | | | | | | Syringa vulgaris | | | | | | Carex | | | | | |
| Berberis thunbergii | | | | | | + Tilia americana | | | | X | | Carex | | | | | |
| Betula alleghaniensis | | X | | | | Ulmus americana | | | | X | | Carex | | | | | |
| Betula papyrifera | | | | | | Ulmus | | | | | | Carex | | | | | |
| Carpinus caroliniana | | | | | | Vaccinium | | | | | | Carex | | | | | |
| Carya cordiformis | | | | | | Viburnum lentago | | | | X | | Carex | | | | | |
| Celastrus scandens | | | | | | Viburnum opulus | | | | X | | Cyperus | | | | | |
| Cornus alternifolia | | X | X | | | Viburnum | | | | | | Cyperus | | | | | |
| Cornus amomum | | X | X | | | Vitis riparia | | | | X | | Dactylis glomerata | | | | | X |
| Cornus rugosa | X | X | | | | Lindera benz | | | | X | | Danthonia spicata | | | | | |
| Cornus stolonifera | | | | | | | | | | | | Echinochloa crus-galli | | | | X | |
| Corylus cornuta | | | | | | | | | | | | Eleocharis erythropoda | | | | | |
| Crataegus monogyna | | | | | | | | | | | | Eleocharis | | | | | |
| Crataegus punctata | | | | | | | | | | | | Elymus virginicus | | | | X | |
| Crataegus sp. | | X | | X | | | | | | | | Elymus | | | | | |
| Crataegus | | | | | | | | | | | | Festuca arundinacea | | | | | |
| Diervilla lonicera | | | | | | | | | | | | Glyceria striata | | | | X | |
| Fagus grandifolia | | | | | | | | | | | | Glyceria | | | | | |
| Fraxinus americana | | | | | | | | | | | | Juncus dudleyi | | | | | |
| Fraxinus nigra | | | | | | FERNS | | | | | | Juncus effusus | | | | | |
| Fraxinus pennsylvanica | | X | X | X | | Adiantum pedatum | | | | | | Juncus tenuis | | | | | |
| Ilex verticillata | | | | | | Athyrium filix-femina | | | | | | Juncus | | | | | |
| Juglans cinerea | | | | | | Botrychium multifidum | | | | | | Juncus | | | | | |
| Juglans nigra | | | | | | Botrychium virginianum | | | | | | Leersia oryzoides | | | | | |
| Lonicera morrowi | | | | | | Cystopteris bulbifera | | | | | | Muhlenbergia | | | | | |
| Lonicera tatarica | | | | | | Dryopteris carthusiana | | | | X | | Oryzopsis asperifolia | | | | | |
| Lonicera | | | | | | Dryopteris cristata | | | | | | Panicum | | | | | |
| Malus pumila | | X | | X | | Dryopteris marginalis | | | | | | Panicum | | | | | |
| Ostrya virginiana | | X | | | | Dryopteris | | | | | | Phalaris arundinacea | | | | X | |
| Parthenocissus inserta | | | | | | Equisetum arvense | | | | X | | Phleum pratense | | | | X | |
| Populus balsamifera | | X | | | | Equisetum hyemale | | | | | | Phragmites australis | | | | | |
| Populus grandidentata | | | | | | Equisetum variegatum | | | | | | Poa compressus | | | | | |
| Populus tremuloides | | X | | | | Equisetum | | | | | | Poa pratensis | | | | X | |
| Populus | | | | | | Gymnocarpium dryoperis | | | | | | Poa | | | | | |
| Prunus pensylvanica | | | | | | Lycopodium digitatum | | | | | | Scirpus atrovirens | | | | | |
| Prunus serotina | | X | X | | | Lycopodium obscurum | | | | | | Scirpus cyperinus | | | | | |
| Prunus virginiana | | X | X | | | Lycopodium | | | | | | Scirpus validus | | | | | |
| Prunus | | | | | | Lycopodium | | | | | | Scirpus | | | | | |
| Quercus macrocarpa | | | | | | Matteucia struthiopteris | | | | | | Scirpus | | | | | |
| Quercus rubra | | | | | | Onoclea sensibilis | | | | X | | Setaria glauca | | | | X | |
| Quercus | | | | | | Osmunda cinnamonia | | | | | | Sparganium | | | | | |
| Rhamnus cathartica | | X | X | | | Osmunda regalis | | | | | | Typha angustifolia | | | | | |
| Rhus radicans | | X | X | | | Polytaichum acrostichoides | | | | | | Typha latifolia | | | | | |
| Rhus typhina | | | | | | Pteridium aquilinum | | | | | | Typha Xglauca | | | | | |
| Ribes americana | | X | | | | Thelypteris palustris | | | | | | | | | | | |
| Ribes cynosbati | | | | | | | | | | | | | | | | | |
| Ribes x rubrum | | | | X | | | | | | | | | | | | | |
| Robinia pseudo-acacia | | | | | | | | | | | | | | | | | |
| Eucalyptus oblat | | X | | | | | | | | | | | | | | | |
| Pyracantha coccinea | | X | | | | | | | | | | | | | | | |
| Epipagrus umbel | | | | X | | | | | | | | | | | | | |
| Cherry Poison Tree | | X | | | | | | | | | | | | | | | |

| | | |
|-----------------------------------|-----------------------------------|--|
| ELC WILDLIFE | SITE: <u>Goshen 291 & 300</u> | |
| | POLYGON: | |
| | DATE: <u>Nov 7, 2011</u> | |
| | SURVEYORS: <u>Kohnstra</u> | |
| START TIME: <u>13:45</u> | END TIME: | |

| | | | |
|----------------------|------------------------|------------------|-------------------------|
| TEMP (°C): <u>13</u> | CLOUD (10th): <u>9</u> | WIND: <u>1-2</u> | PRECIPITATION: <u>0</u> |
| CONDITIONS: | | | |

POTENTIAL WILDLIFE HABITAT:

| | |
|--------------|-------------|
| VERNAL POOLS | SNAGS |
| HIBERNACULA | FALLEN LOGS |

SPECIES LIST: Feature 291

| TY | SP. CODE | EV | NOTES | # |
|---|----------|----|----------------------------|---|
| B | HAWO | OB | | |
| | BCCH | | | |
| | POWO | | | |
| | NOFL | VO | | |
| M | WT Deer | TK | tracks between 291 and 300 | |
| | Coyote | TK | " " | |
| | Turkey | TK | " " | |
| <u>Potential Amphibian Breeding Areas</u> | | | | |

Feature 300

| TY | SP. CODE | EV | NOTES | # |
|----|---------------|----|--|---|
| B | BLJA | OB | | |
| | DOWO | | | |
| | AMGO | VO | | |
| | HAWO | | feather | |
| | W. Turkey | | | |
| M | Raccoon | SC | | |
| H | Wood Frog | OB | forest floor photo | |
| H | Spring Peeper | VO | | |
| | | | <u>Deep Pool suitable for Amphibian at -</u> | |

451945
4797095

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)

Plant Species List
2012

| Dicot Herbs - Asteraceae | | | | | Dicot Herbs | | | | | Dicot Herbs | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 4 | 5 |
| Common Yarrow (<i>Achillea millefolium</i>) | | | | | Shepherd's Purse (<i>Cardella bursa-pastoris</i>) | | | | | Kidney-leaf Buttercup (<i>Ranunculus abortivus</i>) | | | | |
| White Snakeroot (<i>Achillea millefolium</i>) | | | | | Cutleaf Toothwort (<i>Cardamine concatenata</i>) | | | | | Tall Buttercup (<i>Ranunculus acris</i>) | | | | |
| Com. Ragwort (<i>Ambrosia artemisiifolia</i>) | | | | | Toothwort (<i>Cardamine diaphylla</i>) | | | | | Hooked Buttercup (<i>Ranunculus recurvatus</i>) | | | | |
| Giant Ragwort (<i>Ambrosia trifida</i>) | | | | | Penn Bitter-cress (<i>Cardamine pennsylvanica</i>) | | | | | Ranunculus | | | | |
| Field Puss-toes (<i>Antennaria neglecta</i>) | | | | | Cardamine | | | | | Sheep Sorrel (<i>Rumex acetosella</i>) | | | | |
| Artemisia | | | | | Blue Cohosh (<i>Caulophyllum thalictroides</i>) | | | | | Curl-leaf Dock (<i>Rumex crispus</i>) | | | | |
| Common Burdock (<i>Arctium minus</i>) | | | | | Mouse-ear Chickweed (<i>Cerastium fontanum</i>) | | | | | Bitter Dock (<i>Rumex obtusifolius</i>) | | | | |
| Nodding Beggar-ticks (<i>Bidens cernua</i>) | | | | | Turtlehead (<i>Chelone glabra</i>) | | | | | Bloodroot (<i>Sanguinaria canadense</i>) | | | | |
| Devil's Beggar-ticks (<i>Bidens frondosa</i>) | | | | | Spotted Water-hemlock (<i>Cicuta maculata</i>) | | | | | Black Snakeroot (<i>Sanicula marilandica</i>) | | | | |
| Spotted Knapweed (<i>Centaurea biebersteinii</i>) | | | | | Water-hemlock (<i>Cicuta virosa</i>) | | | | | Bouncing Bet (<i>Saxifraga officinalis</i>) | | | | |
| Brown Knapweed (<i>Centaurea jacea</i>) | | | | | Enchanter's Nightshade (<i>Circaea lutetiana</i>) | | | | | Marsh Skullcap (<i>Scutellaria perfoliata</i>) | | | | |
| Chicory (<i>Cichorium intybus</i>) | | | | | Carolina Spring Beauty (<i>Claytonia caroliniana</i>) | | | | | Mad Dog Skullcap (<i>Scutellaria lateriflora</i>) | | | | |
| Canada Thistle (<i>Cirsium arvense</i>) | | | | | Virginia Spring Beauty (<i>Claytonia virginica</i>) | | | | | White Camion (<i>Silene latifolia</i>) | | | | |
| Bull Thistle (<i>Cirsium vulgare</i>) | | | | | Virgin's-bower (<i>Clematis virginiana</i>) | | | | | Bladder Camion (<i>Silene vulgaris</i>) | | | | |
| Horseweed (<i>Conyza canadensis</i>) | | | | | Field Bindweed (<i>Convolvulus arvensis</i>) | | | | | Hemlock Water Parsnip (<i>Sium suave</i>) | | | | |
| Daisy Fleabane (<i>Erythronium annuus</i>) | | | | | Doan's-straw Vine (<i>Cyananchum rossicum</i>) | | | | | Bitter Nightshade (<i>Solanum dulcamara</i>) | | | | |
| Philadelphia Fleabane (<i>Erythronium philadelphicum</i>) | | | | | Wild Carrot (<i>Daucus carota</i>) | | | | | Black Nightshade (<i>Solanum nigrum</i>) | | | | |
| Erythronium | | | | | Devil's-pink (<i>Dianthus armeria</i>) | | | | | Grassleaf Stitchwort (<i>Stellaria graminea</i>) | | | | |
| Joe-pye-weed (<i>Eupatorium maculatum</i>) | | | | | Squirrel-corn (<i>Dicentra canadensis</i>) | | | | | Common Chickweed (<i>Stellaria media</i>) | | | | |
| Boneset (<i>Eupatorium perforatum</i>) | | | | | Dutchman's-breeches (<i>Dicentra cucullaria</i>) | | | | | Early Meadow-rue (<i>Thalictrum dioicum</i>) | | | | |
| Lance-leaved Aster (<i>Eurybia macrophylla</i>) | | | | | Wild Teasel (<i>Dipsacus fulorum</i>) | | | | | Tall Meadow-rue (<i>Thalictrum pubescens</i>) | | | | |
| Flat-top Goldenrod (<i>Euthamia graminifolia</i>) | | | | | Wild Cucumber (<i>Echinocystis lobata</i>) | | | | | Field Penn-cress (<i>Thlas arvense</i>) | | | | |
| Orange Hawkweed (<i>Hieracium aurantacum</i>) | | | | | Virgin's Bells (<i>Echium vulgare</i>) | | | | | Foamflower (<i>Tiarella cordifolia</i>) | | | | |
| Field Hawkweed (<i>Hieracium caespitosum</i>) | | | | | Northern Willow-herb (<i>Eriobium ciliatum</i>) | | | | | Star-flower (<i>Trientalis borealis</i>) | | | | |
| Hieracium | | | | | Hairy Willow-herb (<i>Eriobium hirsutum</i>) | | | | | Red Clover (<i>Trifolium pratense</i>) | | | | |
| Elecampane (<i>Inula helenium</i>) | | | | | Small-fl. Willow-herb (<i>Eriobium parviflorum</i>) | | | | | White Clover (<i>Trifolium repens</i>) | | | | |
| Prickly Lettuce (<i>Lactuca scariola</i>) | | | | | Eriobium | | | | | Trifolium | | | | |
| Lactuca | | | | | Worm Mustard (<i>Erysimum cheiranthoides</i>) | | | | | Stinging Nettle (<i>Urtica dioica</i>) | | | | |
| Ox-eye Daisy (<i>Leucanthemum vulgare</i>) | | | | | Eurobia | | | | | Greater Bladderwort (<i>Utricularia vulgaris</i>) | | | | |
| Pineapple-weed (<i>Matricaria discoidea</i>) | | | | | Healy Nettle (<i>Galeopsis tetrahit</i>) | | | | | Common Mullen (<i>Verbascum thapsus</i>) | | | | |
| Tall White Lettuce (<i>Prenanthes altissima</i>) | | | | | Wild Madder (<i>Galium mollugo</i>) | | | | | Blue Vervain (<i>Verbena hastata</i>) | | | | |
| Black-eyed Susan (<i>Rudbeckia hirta</i>) | | | | | Marsh Bedstraw (<i>Galium palustre</i>) | | | | | White Vervain (<i>Verbena urticifolia</i>) | | | | |
| Tall Goldenrod (<i>Solidago altissima</i>) | | | | | Sweet-scented Bedstraw (<i>Galium triflorum</i>) | | | | | Water Speedwell (<i>Veron. angustifolia</i>) | | | | |
| Blue-stem Goldenrod (<i>Solidago caesia</i>) | | | | | Galium | | | | | Common Speedwell (<i>Veronica officinalis</i>) | | | | |
| Canada Goldenrod (<i>Solidago canadensis</i>) | | | | | Spotted Geranium (<i>Geranium maculatum</i>) | | | | | Veronica | | | | |
| Zinnia Goldenrod (<i>Solidago flexicaulis</i>) | | | | | Herb-robert (<i>Geranium robertianum</i>) | | | | | Cow Vetch (<i>Vicia cracca</i>) | | | | |
| Giant Goldenrod (<i>Solidago gigantea</i>) | | | | | Yellow Avens (<i>Geum aleaicum</i>) | | | | | Vicia | | | | |
| Early Goldenrod (<i>Solidago juncea</i>) | | | | | White Avens (<i>Geum canadense</i>) | | | | | Periwinkle (<i>Vinca minor</i>) | | | | |
| Gray Goldenrod (<i>Solidago nemoralis</i>) | | | | | Urban Avens (<i>Geum urbanum</i>) | | | | | Dog Violet (<i>Viola conspersa</i>) | | | | |
| Solidago | | | | | Dame's Rocket (<i>Hesperis matronalis</i>) | | | | | Yellow Violet (<i>Viola pubescens</i>) | | | | |
| Field Sow-thistle (<i>Sonchus arvensis</i>) | | | | | Virginia Water-leaf (<i>Hydrophyllum virginianum</i>) | | | | | Com. Blue Violet (<i>Viola sororia</i>) | | | | |
| Sonchus | | | | | Com. St. John's-wort (<i>Hypericum perforatum</i>) | | | | | Viola | | | | |
| Heart-leaf Aster (<i>Symphoricarpos cordifolium</i>) | | | | | Spotted Jewelweed (<i>Impatiens capensis</i>) | | | | | | | | | |
| Heath Aster (<i>Symphoricarpos encoides</i>) | | | | | Wood Nettle (<i>Laportea canadensis</i>) | | | | | | | | | |
| Tall White Aster (<i>Symphoricarpos lanceolatum</i>) | | | | | Motherwort (<i>Leonurus cardiaca</i>) | | | | | | | | | |
| Calico Aster (<i>Symphoricarpos lateriflorum</i>) | | | | | Field Peppercorn (<i>Leptium campestre</i>) | | | | | | | | | |
| New England Aster (<i>Symphoricarpos novae-angliae</i>) | | | | | Eur. Gromwell (<i>Lithospermum officinale</i>) | | | | | | | | | |
| Purple-stem Aster (<i>Symphoricarpos purpureus</i>) | | | | | Butter & Eggs (<i>Linaria vulgaris</i>) | | | | | | | | | |
| Common Tansy (<i>Tanacetum vulgare</i>) | | | | | Great Lobelia (<i>Lobelia siphilitica</i>) | | | | | | | | | |
| Common Dandelion (<i>Taraxacum officinale</i>) | | | | | Lobelia | | | | | | | | | |
| Com Goatsbeard (<i>Trigonotis pratensis</i>) | | | | | Cut-leaf Bugleweed (<i>Lycopus americanus</i>) | | | | | | | | | |
| Coltsfoot (<i>Tussilago farfara</i>) | | | | | Northern Bugleweed (<i>Lycopus uniflorus</i>) | | | | | | | | | |
| | | | | | Fringed Loosestrife (<i>Lythrum ciliata</i>) | | | | | | | | | |
| | | | | | Monardella (<i>Lythrum nummularia</i>) | | | | | | | | | |
| | | | | | Lythrum | | | | | | | | | |
| | | | | | Purple Loosestrife (<i>Lythrum salicaria</i>) | | | | | | | | | |
| | | | | | Black Medick (<i>Medicago lupulina</i>) | | | | | | | | | |
| | | | | | Alfalfa (<i>Medicago sativa</i>) | | | | | | | | | |
| | | | | | White Sweet-clover (<i>Melilotus alba</i>) | | | | | | | | | |
| | | | | | Yellow Sweet-clover (<i>Melilotus officinalis</i>) | | | | | | | | | |
| | | | | | Wild Mint (<i>Mentha arvensis</i>) | | | | | | | | | |
| | | | | | Wild Yam (<i>Monarda fistulosa</i>) | | | | | | | | | |
| | | | | | Small Forget-me-not (<i>Myosotis laxa</i>) | | | | | | | | | |
| | | | | | Forget-me-not (<i>Myosotis scorpioides</i>) | | | | | | | | | |
| | | | | | Water-cress (<i>Nasturtium officinale</i>) | | | | | | | | | |
| | | | | | Com. Evening-primrose (<i>Oenothera biennis</i>) | | | | | | | | | |
| | | | | | Sweet-cicely (<i>Osmorhiza berterii</i>) | | | | | | | | | |
| | | | | | Yellow Wood-sorrel (<i>Oxalis stricta</i>) | | | | | | | | | |
| | | | | | Wild Parsnip (<i>Pastinaca sativa</i>) | | | | | | | | | |
| | | | | | English Plantain (<i>Plantago lanceolata</i>) | | | | | | | | | |
| | | | | | Common Plantain (<i>Plantago major</i>) | | | | | | | | | |
| | | | | | Rugel's Plantain (<i>Plantago rugelii</i>) | | | | | | | | | |
| | | | | | May-apple (<i>Podophyllum peltatum</i>) | | | | | | | | | |
| | | | | | Pale Smartweed (<i>Polygonum lapathifolium</i>) | | | | | | | | | |
| | | | | | Lady's-thumb (<i>Polygonum persicaria</i>) | | | | | | | | | |
| | | | | | Virginia Knotweed (<i>Polygonum virginianum</i>) | | | | | | | | | |
| | | | | | Polygonum | | | | | | | | | |
| | | | | | Rough Cin. ufoil (<i>Potentilla norvegica</i>) | | | | | | | | | |
| | | | | | Rough-fruited Cin. ufoil (<i>Potentilla recta</i>) | | | | | | | | | |
| | | | | | Common Cin. ufoil (<i>Potentilla simplex</i>) | | | | | | | | | |
| | | | | | Potentilla | | | | | | | | | |
| | | | | | Heal-all (<i>Prunella vulgaris</i>) | | | | | | | | | |
| | | | | | Shinleaf (<i>Pyrola elliptica</i>) | | | | | | | | | |

D - Dominant represented by large numbers, generally forming >10% ground cover or >25% vegetation cover in any one stratum
 F - Fairly common (=Abundant in ELC) generally widespread represented by fairly large numbers of individual clumps usually forming >10% ground cover
 U - Uncommon (=Occasional in ELC) present as widespread scattered individuals or represented by one or more clumps if many individuals (most species will fall into this category)
 R - Rare represented in the polygon by less than about five individuals or small clumps

Map Number: 2012-02-20
 Date: 26 Feb 2012
 Surveyors: W, T

Significant Wildlife Habitat Form

AECOM

Study Area: BLW JER GSH Map #: 291-GSH208
 Date: 2012-04-26 Time Started: 9:30
 Field Staff: Tom Stoney Jess Piette Time Finished: 11:30
 Weather Conditions: overcast, light rain 6°C, 40km/h wind

Colonial Nesting Tree/Shrub Birds, Osprey Breeding/Feeding, Bald Eagle Breeding/Nesting Habitat
 (FET1, FOC, FOM, FOD, SWC, SWM, SWD)

Nest bowls present: No Yes (if yes, photograph and complete the following)
 UTM: _____ Number of nests: _____
 Description of nests (location, e.g. in tree/on built structure; material; evidence of recent use; birds present): _____

 Description of habitat (note riparian areas if present, evidence of disturbance): _____

Waterfowls Stopover/Nesting, Amphibian Breeding, Turtle Nesting/Over-wintering, Marsh Breeding Birds
 (CUM1, CUT1, MAM, MAS, SAS1, SAM1, SAF1, SWD, SWT1, SWT2) (FOC, FOM, FOD, SWC, SWM, SWD, BOO1, FEO1)

Standing water present: No Yes (if yes, photograph and complete the following)
 UTM: _____ Area of standing water delineated on field map: _____
 Water depth (m): _____ % open water: _____ % emergent vegetation: _____
 Description of standing water (permanent pool, evidence of annual spring flooding, etc): _____
* Found Potential VP - Water too low for breeding Amphibians *
 Area and soil/substrate of shoreline habitat: _____
 Type and abundance of cover in open water habitat: _____
 Type and abundance of cover in surrounding habitat: _____
 Evidence of disturbance (e.g. cattle grazing): _____
 Evidence of use by waterfowl, amphibians, turtles (e.g. broken eggs), marsh breeding birds: _____

*****Complete Vernal Pool Habitat Description Form*****

Snake Hibernacula

Fissured rock/foundation or rock/debris pile present: No Yes (if yes, photograph and complete the following)
 UTM: _____ Likelihood to extend below frost line: _____
 % canopy cover: _____ % slope: _____ Distance to open canopy (m): _____
 Description of fissure or stone pile (composition/material, dimensions, etc): _____
 Description of surrounding habitat (type & abundance of cover, evidence of disturbance, etc): _____

Seeps and Springs (FOC, FOM, FOD, SWC, SWM, SWD)

Evidence of seep or spring: No Yes (if yes, photograph and complete the following)
 UTM: _____ Description (indicator species, etc): _____

NHA Site Investigation - Significant Wildlife Habitat Form

AECOM

Colonial Nesting Bird Breeding Habitat (Bank and Cliff Swallows)
 (CUM1, CUT1, CUS, BLO1, BLS1, BLT1, CLO1, CLS1, CLT1)
 Eroding bank, sandy hill, pits, steep slope or rock face present:
 No Yes (if yes, photograph and complete the following)
 UTM: _____ Location (e.g. aggregate pit, bridge): _____
 Evidence of use by bank or cliff swallows (provide number of nests): _____

Colonial Nesting Ground Breeding Birds, Shorebird Migratory Stopover Areas
 (BBO1, BBO2, BBS1, BBS2, BBT1, BBT2, SDO1, SDS2, SDT1, MAM1, MAM2, MAM3, MAM4, MAM5)
 Shoreline of lake, large river or large wetland present:
 No Yes (if yes, photograph and complete the following)
 UTM: _____ Rocky island or peninsula present: _____
 Mudflat present: _____ Evidence of disturbance (e.g. cattle grazing): _____
 Description of habitat (size of rocky outcrop/mudflat, substrate/soil type, type and abundance of cover): _____

Raptor Winter Feeding and Roosting, Open Country or Shrub/Early Successional Bird Breeding Habitat
 CUT1, CUS1, >30ha, CUM1 >30ha, FOC, FOD, FOM with a CUM, CUT, CUS, CUW > 20ha, or a CUM, CUS, CUT, CUW >15ha
 Large meadow, old field or generally open habitat (e.g. CUM, CUS, CUT, CUS, CUW) present:
 Large open habitat present: No Yes (if yes, photograph and complete the following)
 UTM: _____ Evidence of disturbance (e.g. cattle grazing): _____
 Description of habitat (abundance of food plants for rodents, abundance of perches, height of vegetation): _____

Old-growth or Mature Forests, Interior Forest Breeding Birds
 (FOD, FOC, FOM, SWC, SWM, SWD. Mature forest (>60 years) present)
 Mature forest present: No Yes (if yes, photograph and complete the following)
 UTM: _____ Age of oldest trees: _____
 Evidence of disturbance (e.g. selective cutting): _____
 Description of habitat (structural complexity, abundance of snags and/or downed woody debris, etc): _____

| Photo # | Location or Subject | Photo # | Location or Subject |
|---------|---------------------|---------|---------------------|
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Species of Conservation Concern Habitat and Incidental Wildlife – Goshen



| ELC | | Species | Habitat Description | Habitat Present (Y/N; UTM; description of habitat if present) |
|--|--|---|---|---|
| CUM1, MAM, | | June – August | | |
| FOD6, FOD7, FOD9 | | Green Dragon (Arisaema dracontium) - SC/S3 Bloom Time – May and June | Species found in damp deciduous forest and along river streams. Particularly Maple forest and forest dominated by Red Ash and White Elm. | Y (N) UTM: |
| TP01, TPS1, TPW1, FOM1, FOM2, FOD1, FOD2, FOD3 | | Hairy Bedstraw (Galium pilosum) - S3 Bloom Time – June-August | Occurs in dry, sandy woods and thickets; occasionally in dry sandy fields | Y (N) UTM: |
| FE01, FES1, FET1, SWC, SWM, SWD, SWT, TPO, TPW | | Hairy Valerian (Valeriana edulis) - S1 Bloom Time – June to August | Inhabits swampy river flats and meadows, wet prairies, and wooded, rocky riverbanks and fens. | Y (N) UTM: |
| FOD6, FOD7, SWM, (SWD) | | Hairy Wood Mint (Blephilia hirsuta) - S1 Bloom Time – Summer | Woodlands, often rocky, especially rivers. Rich woods, swamp forests floodplains. | Y (N) UTM: N/O |
| FOD6, FOD7, (FOD8) FOD9 | | Harbinger-of-spring (Eriogonum bulbosum) - S3 Bloom Time – early to late April | Occurs in rich, moist deciduous woods, especially on floodplains. | Y (N) UTM: N/O |
| SAS1, SAM1, SAF1 | | Hill's Pond Weed (Potamogeton hillii) - SC/S2 Bloom Time – summer | Aquatic plant found in highly alkaline waters of ditches, ponds, beaver ponds, and slow-moving cold waters. | Y (N) UTM: |
| FOM6, FOM7, FOM8 | | Large Round-leaved Orchid (Platanthera macrophylla) - S2 Bloom Time – June to August | Species inhabits moist mixed woods. Found in fairly mature, upland sugar maple-beech-eastern hemlock woodlands. | Y (N) UTM: |
| MAM2, MAM3, MAS2, MAS3, (SWD) | | Lizard's Tail (Saururus cernuus) - S3 Bloom Time – June – September | Species inhabits shores and streambanks along shallow water. As well as swamps floodplains, shallow water and mudflats at the borders of streams and ponds. | Y (N) UTM: N/O |
| FOD6, FOD7, FOD9 FOD8 | | Pawpaw (Asimina triloba) - S3 Bloom Time – March-May | Occurs in moist deciduous woods and stream banks. | Y (N) UTM: N/O |
| FOM8, FOD6, FOD7 FOD9, CUM1 (FOD8) | | PiLOSE Evening Primrose (Oenothera pilosella) - S2 Bloom Time – Late Spring – Early Summer | Moist edges of woods and open, disturbed ground. | Y (N) UTM: N/O |
| TPW1, FOM1, FOM2, FOD1, FOD2, FOD3 | | Prostrate Tick-trefoil (Desmodium rotundifolium) - S2 Bloom Time – July-September | Dry, sandy or rocky woods | Y (N) UTM: |
| FOD7, (SWD) | | Pumpkin Ash (Fraxinus profunda) - S2? Bloom Time – March - June | Swamps and floodplains | Y (N) UTM: N/O |
| CUW1, ALO, FET1, SWC | | Ram's-head Lady's-slipper (Cypripedium arietinum) - S3 Bloom Time – mid May to mid June | Found in cedar woodlands, limestone plains and wooded fens, moist coniferous swamps, dry-sandy woods, and limestone barren. | Y (N) UTM: |
| FOD1, FOD2, FOD3, FOD4, FOD5, FOC1, FOM1, FOM5 | | Rattlesnake Hawkweed (Hieracium venosum) - S2 Bloom Time – April – September | Species inhabits open, dry sandy woods. Jack pine, oak, and aspen woodlands. | Y (N) UTM: |
| FOD6, FOD7, FOD9 FOD8 | | Round-leaved Groundsel (Packera obovata) - S3 Bloom Time – May - June | Found in moist woods | Y (N) UTM: N/O |
| CUM1, CUT1, CUS1 | | Round-leaved hawthorn (Crataegus lumarie) - S3? | Species occurs in old fields, poorly managed pastures, fencelines and roadsides | Y (N) UTM: |
| FOD6, FOD7, (FOD8) FOD9, SWT2, SWT3 | | Scarlet Beebalm (Monarda didyma) - S3 Bloom Time – May to October | Found in moist, rich woods, thicket swamps, banks and floodplains. | Y (N) UTM: N/O |
| ALO, ALS, ALT, TPO, TPS, TPW | | Slender Blazing Star (Liatris cylindracea) - S3 | Species occurs in limestone and dolostone pavement, prairies, open woods, alvars and moist sandy meadows. | Y (N) UTM: |
| SBO, SBS, SBT, TP01, TPS1, TPW1, FOD1, FOD2 | | Slender Knotweed (Polygonum tenue) - S2 | Found in dry, sandy, open areas in deciduous (often oak woods), prairie meadows; at edges of sand pits | Y (N) UTM: |
| SDT1, FOD5, FOD9 | | Slim-flowered Muhly (Muhlenbergia tenuiflora) - S2 | Found in rich deciduous forest, often on rocky or sandy soils, wooded dunes, hillsides, and riverbanks whether in oak or beech-maple woods | Y (N) UTM: |
| BL01, BLS1, BLT1, TP02, TPS2, TPW2, MAM2, FOD7 | | Stiff Gentian (Gentianella quinquefolia) - S2 Bloom Time – late summer to mid fall | Found in moist soils of streambanks, edges of woods, wet prairies, marshy meadows, bluffs and wooded hillsides. | Y (N) UTM: |
| TPS1, TPW1, CUW1, RBO, SBO | | Sundial Lupine (Lupinus perennis) - S3 Bloom Time – mid-March to mid-June | Inhabits dry, sandy oak savannahs, prairies, open barrens or clearings in woodlands of oak, jack pine, and/or aspen. | Y (N) UTM: |

Species Conservation Concern Habitat and Incidental Wildlife – Goshen

A DM

| ELC | Species | Habitat Description | Habitat Present (Y/N; UTM; UTM; description of habitat if present) |
|--|---|--|--|
| TPO1, TPS1, TPW1, CUM1 | Tall Blazing Star (<i>Liatris aspera</i>) - S3/SC | Occurs in open, sandy woods, dry roadsides and sandy prairies | Y (N) UTM: |
| FE0, FES, FET, MAM2, MAM3 | Tuberous Indian Plantain (<i>Amoglossum plantagineum</i>) - S3 Bloom Time - mid-March to mid-June | Occurs mainly in flat, sandy areas of the Bruce Peninsula. Fens, wet meadows, and calcareous river flats. | Y (N) UTM: |
| FOC1, FOC2, FOC3, FOC4 | Woodland Pinedrops (<i>Pterospora andromedea</i>) - S2 Bloom Time - summer | Found in conifer woods, under pines, but also hemlock, spruce, fir, and white cedar. In dry or rocky soil, often with common juniper and sometimes aspen or birch. | Y (N) UTM: |
| CUM1, CUT1, CUW1, RBO1, SBO1 | Yellow Ladies'-tresses (<i>Spiranthes ochroleuca</i>) - S2 Bloom Time - August to November | Dry, open sites, usually on acidic sandy soil, dry to mesic open woodland, thickets, meadows, barrens, ledges, outcrops, banks and roadsides, old fields. | Y (N) UTM: |
| BIRDS | | | |
| CUW, SDO, RBO, TPS | Bald Eagle (<i>Haliaeetus leucocephalus</i>) - SC Common Nighthawk (<i>Chordeiles minor</i>) - SC | Assessed as SWH. Record species if found. Hunts insects over a wide variety of habitats, in particular open or semi-open areas. Nests on ground in a wide range of open, sparse or vegetation-free habitats. | not required. Y (N) UTM: |
| FOD, FOM | Louisiana Waterthrush (<i>Seturus motacilla</i>) - SC | Inhabits mature forests along steeply sloped ravines adjacent to running water. Trees, bushes, exposed roots, cliffs, banks and mossy logs are favoured nesting spots. Riparian woodlands are preferred stopover sites during migration | Y (N) UTM: |
| FOD, CUW, CUT | Red-headed Woodpecker (<i>Melanerpes erythrocephalus</i>) - SC | Species inhabits open woodland/ edges (oak savannahs and riparian forest), open, deciduous forest with little understorey; fields or pasture lands with scattered large trees; wooded swamps; orchards, small woodlots or forest edges; groves of dead or dying trees; requires cavity trees with at least 40 cm dbh; requires about 4 ha for a territory. | Y (N) UTM: |
| CUT1 | Short Eared Owl (<i>Asio flammeus</i>) - SC Yellow-breasted Chat (<i>Icteria virens</i>) - SC | Assessed as SWH. Record species if found. Inhabits thickets, tall tangles of shrubbery beside streams, ponds, overgrown bushy clearings with deciduous thickets; nests above ground in bush, vines | not required. Y (N) UTM: |
| REPTILES | | | |
| | Eastern Ribbonsnake (<i>Thamnophis sauritus</i>) - SC Milksnake (<i>Lampropeltis triangulum</i>) - SC Snapping Turtle (<i>Chelydra serpentina</i>) - SC | Assessed as SWH. Record species if found. Assessed as SWH. Record species if found. Assessed as SWH. Record species if found. | not required. not required. not required. |
| INSECTS | | | |
| OAO, SA, SWM, SWD | Azure Bluet (<i>Enallagma aspersum</i>) - S3 | Species inhabits fishless ponds, lakes and boggy swamps | Y (N) UTM: |
| TPS, TPW | Sleepy Duskywing (<i>Erynnis brizo</i>) - S1 | Occurs in oak/oak-pine scrub, chaparral, barrens, well-drained sandy or shaly soils. Species regularly seen at flowers in oak woods, on the ground, and at mud puddles | Y (N) UTM: |
| CUM1, CUT1, CUW1 | Monarch Butterfly (<i>Danaus plexippus</i>) - SC | Their larvae only feed on milkweeds (<i>Asclepius</i> spp.). Habitat includes abandoned farmland, along roadsides, open spaces where these plants grow | Y (N) UTM: |
| TPS, CUW | Mottled Duskywing (<i>Erynnis martialis</i>) - S2 | Usually seen nectaring or on wet sandy roads. Larvae feeds on New Jersey Tea and adults only likely near where this plant is present | Y (N) UTM: |
| SWT, SWD, SWM, FOM, FOD4-3, TPW, TPS, CUM1 | Tawny Emperor (<i>Asterocampa clyton</i>) - S3 | Species inhabits densely wooded riparian areas, dry woods, open woods, fencerows and parks. Usually occurs near Hackberry, the larval foodplant | Y (N) UTM: |
| FOD5 | West Virginia White (<i>Pieris virginianensis</i>) - SC | This species is restricted to rich, moist, deciduous woods, where its foodplant Toothwort occur | Y (N) UTM: |

Sept 21/11 - SAM

Goshen Feature: 300 GSH2106

(Properties that contain Features within 125m from Collection Lines and 171.5m from Turbines)

h

September 1, 2011



- 300 - GSH 2106
- Collection/Feature Interval
- Turbine Buffer (radius interval)
- Property Fabric
- Goshen Wind Energy Centre
- Roads
- Access/Collection Line
- Collection Buffer (125m)
- Turbine Buffer (171.5m)



Significant Wildlife Habitat Form

AECOM

Study Area: BLW JER (GSH) Map #: 300-GSH2108/2110
 Date: 2012-04-26 Time Started: 11:35
 Field Staff: Tom Storney Jess Piette Time Finished: 12:56
 Weather Conditions: Overcast, 52, 40km/h winds

Colonial Nesting Tree/Shrub Birds, Osprey Breeding/Feeding, Bald Eagle Breeding/Nesting Habitat
 (FET1, FOC, FOM, FOD, SWC, SWM, SWD)
 Nest bowls present: No Yes (if yes, photograph and complete the following)
 UTM: 451888 4797076 Number of nests: 1
 Description of nests (location, e.g. in tree/on built structure; material; evidence of recent use; birds present):
Medium-large size stick nest - approx 20m high in crotch of Sugar maple.
 Description of habitat (note riparian areas if present, evidence of disturbance): FOD6-5 inclusion
pic #8

Waterfowls Stopover/Nesting, Amphibian Breeding, Turtle Nesting/Over-wintering, Marsh Breeding Birds
 (CUM1, CUT1, MAM, MAS, SAS1, SAM1, SAF1, SWD, SWT1, SWT2) (FOC, FOM, FOD, SWC, SWM, SWD, BOO1, FEO1)
VPI+VPZ avg
 Standing water present: No Yes (if yes, photograph and complete the following)
 UTM: 451863 4797137 Area of standing water delineated on field map
 Water depth (m): 30cm % open water: 80 % emergent vegetation: 5%
 Description of standing water (permanent pool, evidence of annual spring flooding, etc): vernal
 Pool along skidder trail.
 Area and soil/substrate of shoreline habitat: mineral soil surrounding
 Type and abundance of cover in open water habitat: Carex sp.
 Type and abundance of cover in surrounding habitat: Deciduous Forest ^{Swamp} → SWD3-3
 Evidence of disturbance (e.g. cattle grazing): Forest Management - Active logging roads
 Evidence of use by waterfowl, amphibians, turtles (e.g. broken eggs), marsh breeding birds: one broken egg
→ No Evidence of other activity, ie turtles, birds

Complete Vernal Pool Habitat Description Form

Snake Hibernacula
 Fissured rock/foundation or rock/debris pile present: No Yes (if yes, photograph and complete the following)
 UTM: See Snake Hibernacula Form Likelihood to extend below frost line: _____
 % canopy cover: _____ % slope: _____ Distance to open canopy (m): _____
 Description of fissure or stone pile (composition/material, dimensions, etc): _____
 Description of surrounding habitat (type & abundance of cover, evidence of disturbance, etc): _____

Seeps and Springs (FOC, FOM, FOD, SWC, SWM, SWD)
 Evidence of seep or spring: No Yes (if yes, photograph and complete the following)
 UTM: _____ Description (indicator species, etc): _____

NHA Site Investigation - Significant Wildlife Habitat Form

AECOM

Colonial Nesting Bird Breeding Habitat (Bank and Cliff Swallows)
 (CUM1, CUT1, CUS, BLO1, BLS1, BLT1, CLO1, CLS1, CLT1)
 Eroding bank, sandy hill, pits, steep slope or rock face present:
 No Yes (if yes, photograph and complete the following)
 UTM: _____ Location (e.g. aggregate pit, bridge): _____
 Evidence of use by bank or cliff swallows (provide number of nests): _____

Colonial Nesting Ground Breeding Birds, Shorebird Migratory Stopover Areas
 (BBO1, BBO2, BBS1, BBS2, BBT1, BBT2, SDO1, SDS2, SDT1, MAM1, MAM2, MAM3, MAM4, MAMS)
 Shoreline of lake, large river or large wetland present:
 No Yes (if yes, photograph and complete the following)
 UTM: _____ Rocky island or peninsula present: _____
 Mudflat present: _____ Evidence of disturbance (e.g. cattle grazing): _____
 Description of habitat (size of rocky outcrop/mudflat, substrate/soil type, type and abundance of cover): _____

Raptor Winter Feeding and Roosting, Open Country or Shrub/Early Successional Bird Breeding Habitat
 CUT1, CUS1, >30ha, CUM1 >30ha, FOC, FOD, FOM with a CUM, CUT, CUS, CUW > 20ha, or a CUM, CUS, CUT, CUW>15ha
 Large meadow, old field or generally open habitat (e.g. CUM, CUS, CUT, CUW) present:
 Large open habitat present: No Yes (if yes, photograph and complete the following)
 UTM: _____ Evidence of disturbance (e.g. cattle grazing): _____
 Description of habitat (abundance of food plants for rodents, abundance of perches, height of vegetation): _____

Old-growth or Mature Forests, Interior Forest Breeding Birds
 (FOD, FOC, FOM, SWC, SWM, SWD. Mature forest (>60 years) present)
 Mature forest present: No Yes (if yes, photograph and complete the following)
 UTM: _____ Age of oldest trees: _____
 Evidence of disturbance (e.g. selective cutting): _____
 Description of habitat (structural complexity, abundance of snags and/or downed woody debris, etc): _____

| Photo # | Location or Subject | Photo # | Location or Subject |
|---------|---------------------|---------|---------------------|
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Species of Conservation Concern Habitat and Incidental Wildlife - Goshen



| ELC | Species | Habitat Description | Habitat Present (Y/N; UTM; description of habitat if present) |
|---|--|--|---|
| CUM1, MAM1, FOD6, FOD7, FOD9 | June - August Green Dragon (Arisaema dracontium) - S3/S3 Bloom Time - May and June | Species found in damp deciduous forest and along river streams. Particularly Maple forest and forest dominated by Red Ash and White Elm. | Y N UTM N/O |
| TP01, TPS1, TPW1, FOM1, FOM2, FOD1, FOD2, FOD3 | June-August Hairy Bedstraw (Galium pilosum) - S3 Bloom Time - June to August | Occurs in dry, sandy woods and thickets; occasionally in dry sandy fields | Y N UTM |
| FE01, FE51, FET1, SWC, SWM, SWD, SWT, TPO, TPS, TPW | June to August Hairy Valerian (Valeriana edulis) - S1 Bloom Time - June to August | Inhabits swampy river flats and meadows, wet prairies, and wooded, rocky riverbanks and fens. | Y N UTM |
| FOD6, FOD7, SWM, SWD | Summer Hairy Wood Mint (Blephilia hirsuta) - S1 Bloom Time - Summer | Woodlands often rocky, especially rivers, Rich woods, swamp forests, floodplains. | Y N UTM N/O |
| FOD6, FOD7, FOD8, FOD9 | Time - early to late April Harbinger-of-spring (Eriogon bulbosa) - S3 Bloom Time - early to late April | Occurs in rich, moist deciduous woods, especially on floodplains. | Y N UTM N/O |
| SAS1, SAM1, SAF1 | Time - summer Hill's Pond Weed (Potamogeton hillii) - SC/S2 Bloom Time - summer | Aquatic plant found in highly alkaline waters of ditches, ponds, beaver ponds, and slow-moving cold waters. | Y N UTM |
| FOM6, FOM7, FOM8 | S2 Bloom Time - June to August Large Round-leaved Orchid (Platanthera macrophylla) - S2 Bloom Time - June to August | Species inhabits moist mixed woods. Found in fairly mature, upland sugar maple-beech-eastern hemlock woodlands. | Y N UTM |
| MAM2, MAM3, MAS2, MAS3, SWD | June - September Lizard's Tail (Saururus cernuus) - S3 Bloom Time - June - September | Species inhabits shores and streambanks along shallow water. As well as swamps, floodplains, and low water and mudflats at the borders of streams and ponds. | Y N UTM |
| FOD6, FOD7, FOD9 | March-May Pawpaw (Asimina triloba) - S3 Bloom Time - March-May | Occurs in moist deciduous woods and stream banks. | Y N UTM N/O |
| FOM8, FOD6, FOD7, FOD9, CUM1 | Bloom Time - Late Spring - Early Summer Pilose Evening Primrose (Oenothera pilosella) - S2 Bloom Time - Late Spring - Early Summer | Moist edges of woods and open, disturbed ground. | Y N UTM N/O |
| TPW1, FOM1, FOM2, FOD1, FOD2, FOD3 | Bloom Time - July-September Prostrate Tick-trefoil (Desmodium rotundifolium) - S2 Bloom Time - July-September | Dry, sandy or rocky woods | Y N UTM |
| FOD7, SWD | March - June Pumpkin Ash (Fraxinus profunda) - S2? Bloom Time - March - June | Swamps and floodplains | Y N UTM N/O |
| CUW1, ALO, FET1, SWC | Bloom Time - mid May to mid June Ram's-head Lady's-slipper (Cypripedium arietinum) - S3 Bloom Time - mid May to mid June | Found in cedar woodlands, limestone plains and wooded fens, moist coniferous swamps, dry-sandy woods, and limestone barren. | Y N UTM |
| FOD1, FOD2, FOD3, FOD4, FOD5, FOC1, FOM1, FOM5 | Bloom Time - April - September Rattlesnake Hawkweed (Hieracium venosum) - S2 Bloom Time - April - September | Species inhabits open, dry sandy woods. Jack pine, oak, and aspen woodlands. | Y N UTM |
| FOD6, FOD7, FOD9 | Time - May - June Round-leaved Groundsel (Packera obovata) - S3 Bloom Time - May - June | Found in moist woods | Y N UTM N/O |
| CUM1, CUT1, CUS1 | Round-leaved hawthorn (Crataegus lumaria) - S3? | Species occurs in old fields, poorly managed pastures, fencelines and roadsides | Y N UTM |
| FOD6, FOD7, FOD8, FOD9, SWT2, SWT3 | May to October Scarlet Beebalm (Monarda didyma) - S3 Bloom Time - May to October | Found in moist, rich woods, thicket swamps, banks and floodplains. | Y N UTM N/O |
| ALO, ALS, ALT, TPO, TPS, TPW | Slender Blazing Star (Liatris cylindracea) - S3 | Species occurs in limestone and dolostone pavement, prairies, open woods, always and moist sandy meadows. | Y N UTM |
| SBO, SBS, SBT, TPO1, TPS1, TPW1, FOD1, FOD2 | Slender Knotweed (Polygonum tenue) - S2 | Found in dry, sandy, open areas in deciduous (often oak woods), prairie meadows, at edges of sand pits | Y N UTM |
| SDT1, FOD5, FOD9 | Slim-flowered Muhly (Muhlenbergia tenuiflora) - S2 | Found in rich deciduous forest, often on rocky or sandy soils, wooded dunes, hillsides, and riverbanks whether in oak or beech-maple woods | Y N UTM |
| BLO1, BLS1, BLT1, TPO2, TPS2, TPW2, MAM2, FOD7 | Time - late summer to mid fall Stiff Gentian (Gentiana quinquefolia) - S2 Bloom Time - late summer to mid fall | Found in moist soils of streambanks, edges of woods, wet prairies, marshy meadows, bluffs and wooded hillsides. | Y N UTM N/O |
| TPS1, TPW1, CUW1, RBO, SBO | mid-March to mid-June Sundial Lupine (Lupinus perennis) - S3 Bloom Time - mid-March to mid-June | Inhabits dry, sandy oak savannahs, prairies, open barrens or clearings in woodlands of oak, jack pine, and/or aspen. | Y N UTM |

Species Conservation Concern Habitat and Incidental Wildlife – Goshen



| ELC | Species | Habitat Description | Habitat Present (Y/N); UTM; description of habitat if present |
|--|---|--|---|
| TPO1, TPS1, TPW1, CUM1 | Tail Blazing Star (<i>Liatris aspera</i>) - S3/SC | Occurs in open, sandy woods, dry roadsides and sandy prairies | Y (N) UTM: |
| FEO, FES, FET, MAM2, MAM3 | Tuberous Indian Plantain (<i>Arnoglossum plantagineum</i>) - S3 Bloom Time – mid-March to mid-June | Occurs mainly in flat, sandy areas of the Bruce Peninsula. Fens, wet meadows, and calcareous river flats. | Y (N) UTM: |
| FOC1, FOC2, FOC3, FOC4 | Woodland Pinedrops (<i>Pterospora andromedea</i>) - S2 Bloom Time – summer | Found in conifer woods, under pines, but also hemlock, spruce, fir, and white cedar. In dry or rocky soil, often with common juniper and sometimes aspen or birch. | Y (N) UTM: |
| CUM1, CUT1, CUW1, RBO1, SBO1 | Yellow Ladies'-tresses (<i>Spiranthes ochroleuca</i>) - S2 Bloom Time – August to November | Dry, open sites, usually on acidic sandy soil, dry to mesic open woodland, thickets, meadows, barrens, ledges, outcrops, banks and roadsides, old fields. | Y (N) UTM: |
| BIRDS | | | |
| - | Bald Eagle (<i>Haliaeetus leucocephalus</i>) - SC | Assessed as SWH. Record species if found. | not required. |
| CUW, SDO, RBO, TPS | Common Nighthawk (<i>Chordeiles minor</i>) - SC | Hunts insects over a wide variety of habitats, in particular open or semi-open areas. Nests on ground in a wide range of open, sparse or vegetation-free habitats. | Y (N) UTM: |
| FOD, FOM | Louisiana Waterthrush (<i>Seiurus motacilla</i>) - SC | Inhabits mature forests along steeply sloped ravines adjacent to running water. Trees, bushes, exposed roots, cliffs, banks and mossy logs are favoured nesting spots. Riparian woodlands are preferred stopover sites during migration. | Y (N) UTM: |
| FOD, CUW, CUT | Red-headed Woodpecker (<i>Melanerpes erythrocephalus</i>) - SC | Species inhabits open woodland/ edges (oak savannas and riparian forest), open, deciduous forest with little understory, fields or pasture lands with scattered large trees; wooded swamps; orchards, small woodlots or forest edges; groves of dead or dying trees; requires cavity trees with at least 40 cm dbh; requires about 4 ha for a territory. | Y (N) UTM: |
| - | Short Eared Owl (<i>Asio flammeus</i>) - SC | Assessed as SWH. Record species if found. | not required. |
| CUT1 | Yellow-breasted Chat (<i>Icteria virens</i>) - SC | Inhabits thickets, tall tangles of shrubby beside streams, ponds; overgrown bushy clearings with deciduous thickets; nests above ground in bush, vines | Y (N) UTM: |
| REPTILES | | | |
| - | Eastern Ribbonsnake (<i>Thamnophis sauritus</i>) - SC | Assessed as SWH. Record species if found. | not required. |
| - | Milksnake (<i>Lampropeltis triangulum</i>) - SC | Assessed as SWH. Record species if found. | not required. |
| - | Snapping Turtle (<i>Chelydra serpentina</i>) - SC | Assessed as SWH. Record species if found. | not required. |
| INSECTS | | | |
| OAO, SA, SWM, SWD | Azure Bluet (<i>Enallagma aspersum</i>) - S3 | Species inhabits fishless ponds, lakes and boggy swamps | Y (N) UTM: |
| TPS, TPW | Sleepy Duskywing (<i>Erynnis brizo</i>) - S1 | Occurs in oak/oak-pine scrub, chaparral, barrens, well-drained sandy or shaly soils. Species regularly seen at flowers in oak woods, on the ground, and at mud puddles | Y (N) UTM: |
| CUM1, CUT1, CUW1 | Monarch Butterfly (<i>Danaus plexippus</i>) - SC | Their larvae only feed on milkweeds (<i>Asclepius</i> spp.). Habitat includes abandoned farmland, along roadsides, open spaces where these plants grow | Y (N) UTM: |
| TPS, CUW | Mottled Duskywing (<i>Erynnis martialis</i>) - S2 | Usually seen nectaring or on wet sandy roads. Larvae feeds on New Jersey Tea and adults only likely near where this plant is present | Y (N) UTM: |
| SWT, SWD, SWM, FOM, FOD4-3, TPW, TPS, CUM1 | Tawny Emperor (<i>Asterocampa clyton</i>) - S3 | Species inhabits densely wooded riparian areas, dry woods, open woods, fencerows and parks. Usually occurs near Hackberry, the larval foodplant | Y (N) UTM: |
| FOD5 | West Virginia White (<i>Pteris virginiensis</i>) - SC | This species is restricted to rich, moist, deciduous woods, where its foodplant Toothwort occur | Y (N) UTM: |

Species at Risk Threatened and Endangered Habitat Assessment - Goshen

Map No.: 300 GSH 2108/2110
 Date (yyyy-mm-dd): Apr 26, 2012

Field Staff: JESSICA PEHLE
 TOMI SHINDA

Time Started: 11:35am
 Time Finished: 12:36pm



| Species | Habitat Description | Potential Habitat / Species Present (Y/N; UTM; description if present) |
|---|---|--|
| Acadian Flycatcher (<i>Empidonax virens</i>) | Occurs in understory of closed-canopy woods and heavily wooded swamps and ravines; often hangs nest over water but can occupy dry woods; requires large areas of mature undisturbed forests (>40 ha); preferred forest types include: maple-beech, oak-maple, beech-hemlock. FOD5-2, FOD2-4, FOM3, SWD | Habitat: Yes / No Species: Yes / No UTM (if required): |
| American Badger (<i>Taxidea taxus</i>) | Remnant tallgrass prairie, sand barrens, farmland, old fields, hedgerows, woodland edges. Requires sandy or friable soils to create dens. Soils should be coarse enough to resist collapse when wet but contain enough organic matter and be sufficiently adhesive to prevent collapse when dry. Look for wide burrows in hedgerows, tracks and hair collect if found. TPO, TPS1, CUM1, CUS, SBO Soil: dry sandy (MR = 0, 1, 2). | Habitat: Yes / No Species: Yes / No UTM (if required): |
| American Chestnut (<i>Castanea dentata</i>) | Deciduous forest communities; prefers forests with moist to well-drained, acid and sandy soils. If present individuals likely to be planted. Planted individuals are protected under the ESA. Blooms early summer; fruits mature late summer. FOD1, FOD2, FOD4, FOD5 Soil: dry sandy (MR = 0, 1, 2). | Habitat: Yes / No Species: Yes / No UTM (if required): |
| American Ginseng (<i>Panax quinquefolius</i>) | In relatively mature deciduous forests, often near the bottom of south-facing slopes, where the microhabitat is warm and well-drained. Deep leaf litter in undisturbed areas of neutral soil (such as over limestone or marble bedrock). Flowers May to August; fruits late summer. FOD5, FOD6, FOD7, FOD9 Soil: Moist (4.5,6) to fresh (2,3). | Habitat: Yes / No Species: Yes / No UTM (if required): |
| Barn Owl (<i>Nycty alba</i>) | Open country; often associated with agricultural lands, especially pasture, old fields, woodlot edges, buildilings, orchards; grasslands, and marshes; in Ontario mainly nests in barns and abandoned buildings but also nests in hollow trees >46 cm dbh. forages in TPO, TPS, CUM1, CUS1, MAM2, MAM3. | Habitat: Yes / No Species: Yes / No UTM (if required): |
| Barn Swallow (<i>Hirundo rustica</i>) | Nearly all nests are made on man-made structures such as barns, garages, sheds, boat houses, bridges, road culverts, eaves and walls. Farmlands or rural areas; forages over open country especially near bodies of water. Where Barn Swallows observed foraging only, is not Significant habitat. Forages in TPO, CUM1, MAM, MAS, OAO, SAS1, SAM1, SAF1; nest on suitable structures. | Habitat: Yes / No Species: Yes / No UTM (if required): |
| Blanding's Turtle (<i>Emydonidea blandingii</i>) | Freshwater lakes, permanent or temporary pools, slow-flowing streams, marshes, swamps; prefers shallow water, organic soil & dense vegetation; nest in loose substrates, including sand, gravel, cobblestone; overwinter in permanent pools ~ 1 m deep, or in slow-flowing streams or in bogs; basks on logs, stumps, or banks. SWT2, SWT3, SWD, SWM, MAS2, SAS1, SAM1, where open water present. | Habitat: Yes / No Species: Yes / No UTM (if required): |
| Bobolink (<i>Dolichonyx oryzivorus</i>) | Nests primarily in forage crops, particularly hayfields and pastures, dominated by a variety of species such as clover, tall grasses and broadleaved plants; also occurs in wet prairie, graminoid peatlands and abandoned fields; generally requires tracts of grassland >5 ha. Also nests in lightly grazed pastures, fallow and abandoned fields and shallow grassy marshes. TPO, TPS, CUM1, MAM2 | Habitat: Yes / No Species: Yes / No UTM (if required): |
| Butternut (<i>Juglans cinerea</i>) | Deciduous forests in rich, moist, & well-drained soils often found along streams; may also be found on well-drained gravel sites, especially in limestone areas. Grows alone or in small groups. Shade intolerant, usually occurs along or near edge of deciduous woodlots and hedgerows. Flowers in May; fruits mature late summer. FOD2, FOD5, FOD6, FOD7 | Habitat: Yes / No Species: Yes / No UTM (if required): |
| Cerulean Warbler (<i>Dendroica cerulea</i>) | Large tracts of mature deciduous forests with tall trees and an open understory; forests may be in wet bottomland areas or upland locations; also nests in older, second-growth deciduous forests and mature deciduous swamps. FOD2, FOD5, FOD6, FOD7 | Habitat: Yes / No Species: Yes / No UTM (if required): |
| Chimney Swift (<i>Chaetura pelagica</i>) | Formerly nested in the trunks of large, hollow trees. Today, mainly use chimneys or abandoned buildings as nesting sites. May forage over wide variety of habitats. It requires dead trees >30 cm for roosting and possibly nesting. Where swifts observed foraging only, is not Significant habitat. Forages in TPO, CUM1, MAM, MAS, OAO, SAS1, SAM1, SAF1; nest in any communities where buildings with chimneys present. | Habitat: Yes / No Species: Yes / No UTM (if required): |
| Eastern Flowering Dogwood (<i>Cornus florida</i>) | Borders of woodlands & sunny openings; grows around edges and hedgerows. Understory species in semi open dry oak-hickory to mesic maple-beech/deciduous or mixed forests. Grows in sandy soil, more or less clayey. If present, likely to be planted specimens. Planted individuals are protected by the ESA. Flowers May; fruits mature fall. FOM1, FOM2; FOM3: FOD1, FOD2, FOD5, FOD6; Soil: dry (0) to fresh (1, 2, 3). | Habitat: Yes / No Species: Yes / No UTM (if required): |
| Eastern Prairie Fringed-orchid (<i>Platanthera leucophaea</i>) | May occur in: (1) fens dominated by Wire Sedge (<i>Carex lasiocarpa</i>), (2) fens dominated by Common Reed (native form) & sedges, (3) poor fen mats around lakes dominated by sphagnum moss & ericaceous shrubs, (4) highly diverse wet mesic prairie with bluestem and other grasses. Flowers in June to July, Fruits in mid-summer. FEO1-2, FES1, FET1; Soil: Fresh (2,3) to Moist (4,5) deep, black calcareous silt loams, organic silty clay loams, muck. | Habitat: Yes / No Species: Yes / No UTM (if required): |
| Eastern Hognose Snake (Heterodon platirhinos) | Prefers habitats with sandy, well-drained soil and open vegetative cover, such as open woods, thickets, upland fields, pastures, forest edges, savannahs, sandy beaches; dry open mixed or deciduous forest prefer forest areas > 5ha, often found near water.. BB, SD, SB, TP, FOD1; potentially in any suitable habitat with sandy soils. | Habitat: Yes / No Species: Yes / No UTM (if required): |

Species at Risk Threatened and Endangered Habitat Assessment – Goshen

| Species | Habitat Description | Potential Habitat Species Present (YN; UTM; description if present) |
|---|--|--|
| Eastern Meadowlark (<i>Sturnella magna</i>) | Most common in native grasslands, savannah, old fields, hayfields, lightly grazed pastures, weedy meadows, fields with occasional shrubs. Minimum area of grassland required is about 5 ha. TPO, TPS, CUM1, MAM2, MAS2 | Habitat: Yes / No Species: Yes (No) n/o UTM (if required): |
| Eastern Musk Turtle (<i>Stemotherus odoratus</i>) | Requires permanent shallow, slow moving water of lakes, streams, marshes, and ponds and soft earth to bury into; resting habitat close to water and exposed to direct sunlight; eggs laid in debris or under stumps or fallen logs at water's edge. MAM3, MAS2, MAS3, OAO, SA | Habitat: Yes (No) Species: Yes (No) UTM (if required): |
| Goldenseal (<i>Hydrastis Canadensis</i>) | Rich moist areas of mature deciduous forests dominated by sugar maple, or in moist floodplain forests dominated by maples and oaks. Individuals of this species have been planted but planted individuals are not protected by the ESA. Blooming & fruiting: April to May. FOD5, FOD6, FOD7, FOD9; Soil: Moist (4.5.6)-Fresh (2.3). | Habitat: Yes / No Species: Yes (No) not observed UTM (if required): |
| Five-lined Skink (<i>Plestiodon fasciatus</i>) | Inhabits shorelines of Lakes Erie and Huron; found under woody debris in open areas or edges associated with stabilized dune habitat, open forested areas or savanna with sandy substrate. Look for open woodlands with logs and slash piles; damp spots under logs, leaf litter, or sawdust piles. SD, TPS, open FOM, open FOD soil: Sandy sites | Habitat: Yes (No) Species: Yes (No) UTM (if required): |
| Goldenseal (<i>Hydrastis Canadensis</i>) | Rich moist areas of mature deciduous forests dominated by sugar maple, or in moist floodplain forests dominated by red maples and white oaks. Individuals of this species have been planted but planted individuals are not protected from kill and harm by the ESA. Blooming & fruiting: April to May. FOD5, FOD6, FOD7, FOD9; Soil: Moist (4.5.6)-Fresh (2.3). | Habitat: Yes / No Species: Yes (No) not observed UTM (if required): |
| Grey Fox (<i>Urocyon cinereoargenteus</i>) | Considered a habitat generalist. Habitats include deciduous forests, meadows, thickets, swamps and marshes; dens in many different kinds of substrate (rock outcrops, hollow trees, underground burrows dug by other animals, or in piles of brush), often close to a water source. Individual has numerous winter dens throughout its range which is > 40 ha. TPO, TPS, FOD, SWD, MAM, CUM, CUT. | Habitat: Yes / No Species: Yes (No) not observed UTM (if required): |
| Kentucky Coffeetree (<i>Gymnocladus dioica</i>) | Generally inhabits open woodlands on floodplains, near edges of wetlands, and shallow soil over limestone; shade-intolerant; prefers sunny locales in rich woodlands and at the edges of marshes. Flowers in late spring; fruits mature mid-summer. If present, likely to be have been planted, which are protected by the ESA. FOD4, FOD7; Soil: Moist (4.5.6) | Habitat: Yes (No) Species: Yes (No) not flood plain UTM (if required): |
| Least Bittern (<i>Xobrychus exilis</i>) | Occurs in large marshes (especially cattail) with good interspersions of emergents and open water. Nests sit on platforms of stiff stems; nests within 10m of open water. Prefers large marshes that have relatively stable water levels throughout the nesting period. MAS2-1, MAS3-1, SA, OAO. | Habitat: Yes (No) Species: Yes / No UTM (if required): |
| Northern Bobwhite (<i>Colinus virginianus</i>) | Requires open edge habitats that provide a mixture of grasslands, croplands and thickets. In summer, uses grasslands to nest and feed. From summer to fall, requires croplands for feeding, dusting and roosting. Uses dense thickets for shelter and rest throughout the year, and for feeding during fall and winter. These three habitat types must be sufficiently interspersed to be in close proximity to the others. CUM1, CUT1, TPO, TPS, CUS1 | Habitat: Yes / No Species: Yes / No UTM (if required): |
| Queensnake (<i>Regina septemvittata</i>) | Highly specialized habitat requirements: aquatic species, seldom found > 3 m from water. (1) permanent water, flowing or still, with temp ≥ 18°C throughout most of the active season; (2) abundant cover, e.g. flat rock, (3) abundant crayfish, rocky, gravelly, or stone stream-bed substrates, swift to moderate current, and woodland surroundings. OAO; adjacent terrestrial habitat. SA, MAS, MAM2, MAM3, SWT2-2, SWT3-2. | Habitat: Yes / No Species: Yes / No UTM (if required): |
| Spotted Turtle (<i>Clemmys guttata</i>) | Inhabits streams, ponds, wet meadows, marshes or swamps with aquatic vegetation, logs or clumps of vegetation or basking with soft, muddy soil, sphagnum moss, sedge tussocks, cattails, water lilies and water-loving shrubs. Nests in groups near man-made dykes, muskrat nests, base of grass tussocks. SWD, SWM, MAM3, MAS2, MAS3, OAO, SA. | Habitat: Yes (No) no aquatic veg Species: Yes / No UTM (if required): |
| Whip-poor-will (<i>Caprimulgus vociferus</i>) | Generally prefer semi-open deciduous or mixed forests or patchy forests with clearings; areas with little ground cover also preferred. Generally associated with >100 ha forests. CUW, FOD, FOM, FOD1. | Habitat: Yes / No Species: Yes / No UTM (if required): |

| Species Code | UTM | Notes |
|--|-----|--|
| | EV | |
| Additional Species at Risk Presence Observed: | | |
| Evidence Codes (EV) | | <p>Breeding Bird (Possible) SH=Suitable Habitat, SM=Singing Male;</p> <p>Breeding Bird (Probable) T-Territory, D=Display, P=Pair, N=Nest Building, V= Visiting Nest, A=Anxiety Behavior,</p> <p>Breeding Bird (Confirmed) DD=Distractor, NU=Used Nest, FY=Fledged Young, NE=Eggs, NY=Young, FS=Foos/Faecal sack, AE=Nest Entry</p> <p>OB=observed, VO=Vocalization, CA=Carass, DP=Distinctive Parts, HO=House/Den, FY=Eggs/young, TK=tracks, FE=Feeding evidence, SC= Scat, SI=Other signs (specify)</p> |
| Other Wildlife Evidence: | | |

Significant Wildlife Habitat Form

Re-visit Stick Nest

AECOM

| | | | |
|---------------------|----------------------|----------------|------------------|
| Study Area: | BLW JER (GSH) | Map #: | 300-GSH2/08/2110 |
| Date: | May 17-2012 | Time Started: | 5:20 pm |
| Field Staff: | J. Kamstra, A. Doh | Time Finished: | 5:40 pm |
| Weather Conditions: | Sunny, 18C | | |

Colonial Nesting Tree/Shrub Birds, Osprey Breeding/Feeding, Bald Eagle Breeding/Nesting Habitat
(FET1, FOC, FOM, FOD, SWC, SWM, SWD)

Nest bowls present: No Yes (if yes, photograph and complete the following)

UTMs: 451888, 4797076 Number of nests: 1

Description of nests (location, e.g. in tree/on built structure; material; evidence of recent use; birds present):
Fresh nest round in good shape, 20 m in Sugar Maple, NO sign of adult -

Description of habitat (note riparian areas if present, evidence of disturbance):
broken canopy - moist forest Ace sacu - Acer bed - Fraxin

Waterfowls Stopover/Nesting, Amphibian Breeding, Turtle Nesting/Over-wintering, Marsh Breeding Birds
(CUM1, CUT1, MAM, MAS, SAS1, SAM1, SAF1, SWD, SWT1, SWT2) (FOC, FOM, FOD, SWC, SWM, SWD, BOO1, FE01)

Standing water present: No Yes (if yes, photograph and complete the following)

UTMs: _____ Area of standing water delineated on field map

Water depth (m): _____ % open water: _____ % emergent vegetation: _____

Description of standing water (permanent pool, evidence of annual spring flooding, etc): _____

Area and soil/substrate of shoreline habitat: _____

Type and abundance of cover in open water habitat: _____

Type and abundance of cover in surrounding habitat: _____

Evidence of disturbance (e.g. cattle grazing): _____

Evidence of use by waterfowl, amphibians, turtles (e.g. broken eggs), marsh breeding birds: _____

Complete Vernal Pool Habitat Description Form

Snake Hibernacula

Fissured rock/foundation or rock/debris pile present: No Yes (if yes, photograph and complete the following)

UTMs: _____ Likelihood to extend below frost line: _____

% canopy cover: _____ % slope: _____ Distance to open canopy (m): _____

Description of fissure or stone pile (composition/material, dimensions, etc): _____

Description of surrounding habitat (type & abundance of cover, evidence of disturbance, etc): _____

Seeps and Springs (FOC, FOM, FOD, SWC, SWM, SWD)

Evidence of seep or spring: No Yes (if yes, photograph and complete the following)

UTMs: _____ Description (indicator species, etc): _____

⊕ Additional Bird calls heard are noted on back

NHA Site Investigation - Significant Wildlife Habitat Form

AECOM

Colonial Nesting Bird Breeding Habitat (Bank and Cliff Swallows)

(CUM1, CUT1, CUS, BLO1, BLS1, BLT1, CLO1, CLS1, CLT1)

Eroding bank, sandy hill, pits, steep slope or rock face present:

 No

 Yes (if yes, photograph and complete the following)

UTMs: _____

Location (e.g. aggregate pit, bridge): _____

Evidence of use by bank or cliff swallows (provide number of nests): _____

Colonial Nesting Ground Breeding Birds, Shorebird Migratory Stopover Areas

(BBO1, BBO2, BBS1, BBS2, BBT1, BBT2, SDO1, SDS2, SDT1, MAM1, MAM2, MAM3, MAM4, MAM5)

Shoreline of lake, large river or large wetland present:

 No

 Yes (if yes, photograph and complete the following)

UTMs: _____

Rocky island or peninsula present: _____

Mudflat present: _____

Evidence of disturbance (e.g. cattle grazing): _____

Description of habitat (size of rocky outcrop/mudflat, substrate/soil type, type and abundance of cover): _____

Raptor Winter Feeding and Roosting, Open Country or Shrub/Early Successional Bird Breeding Habitat

CUT1, CUS1, >30ha, CUM1 >30ha, FOC, FOD, FOM with a CUM, CUT, CUS, CUW > 20ha, or a CUM, CUS, CUT, CUW > 15ha

Large meadow, old field or generally open habitat (e.g. CUM, CUS, CUT, CUS, CUW) present:

Large open habitat present:

 No

 Yes (if yes, photograph and complete the following)

UTMs: _____

Evidence of disturbance (e.g. cattle grazing): _____

Description of habitat (abundance of food plants for rodents, abundance of perches, height of vegetation): _____

Old-growth or Mature Forests, Interior Forest Breeding Birds

(FOD, FOC, FOM, SWC, SWM, SWD. Mature forest (>60 years) present)

Mature forest present:

 No

 Yes (if yes, photograph and complete the following)

UTMs: _____

Age of oldest trees: _____

Evidence of disturbance (e.g. selective cutting): _____

Description of habitat (structural complexity, abundance of snags and/or downed woody debris, etc): _____

| Photo # | Location or Subject | Photo # | Location or Subject |
|---------|---------------------|---------|---------------------|
| RBGR | calling | | |
| WOTFI | " | | |
| SOSP | " | | |
| HWR | " | | |
| NOFL | " | | |
| EAST | | | |
| BAOR | " | | |
| | | | |
| | | | |

Goshen Feature: 291/300 GSH2108/2110

(Properties that contain Features within 125m from Collection lines and 171.5m from Turbines)



| I 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 | X | | | | | Agropyron repens | | | | | |
| Larix laricina | | | | | | Rubus idaeus | X | | | | | Alopecurus | | | | | |
| Picea abies | | | | | | Rubus occidentalis | X | | | | | Bromus inermis | | | | X | |
| 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 | | X | | | | Salix bebbiana | | | | | | Carex blanda | | X | | | |
| Tsuga canadensis | | X | | | | + Salix discolor | | | | | | Carex gracillima | | X | | | |
| | | | | | | Salix eriocephala | | | | | | Carex granulata | | | | | |
| | | | | | | Salix exigua | | | | | | Carex hystericina | | | | | |
| | | | | | | Salix lucida | | | | | | Carex pennsylvanica | | | | | |
| | | | | | | Salix petiolaris | | | | | | Carex radiata | | X | | | |
| TREES and SHRUBS | | | | | | + Salix purpurea | | | | | | Carex retrorsa | | X | | | |
| Acer negundo | | | | | | Salix x rubens | | | | | | Carex scirpina | | X | | | |
| Acer rubrum | | X | | | | + Salix | | | | | | Carex stricta | | | | | |
| Acer saccharinum | X | X | | | | Sambucus canadensis | X | | | | | Carex vulpinoidea | | | | | |
| Acer saccharum | | X | | | | Sambucus racemosa | | | | | | Carex | | X | | | |
| Acer spicatum | | | | | | Sorbus aucuparia | | | | | | Carex | | X | | | |
| Alnus incana | | | | | | Spiraea alba | | | | | | Carex | | | | | |
| Amelanchier | | | | | | Syringa vulgaris | | | | | | Carex | | | | | |
| Berberis thunbergii | | | | | | + Tilia americana | | X | | | | Carex | | | | | |
| Betula alleghaniensis | | X | | | | Ulmus americana | X | X | | | | Carex | | | | | |
| Betula papyrifera | | | | | | Ulmus | | | | | | Carex | | | | | |
| Carpinus caroliniana | | | | | | Vaccinium | | | | | | Carex | | | | | |
| Carya cordiformis | | | | | | Viburnum lentago | | X | | | | Carex | | | | | |
| Celastrus scandens | | | | | | Viburnum opulus | | X | | | | Cyperus | | | | | |
| Cornus alternifolia | | X | | | | Viburnum | | | | | | Cyperus | | | | | |
| Cornus amomum | | X | | | | Vitis riparia | | X | | | | Dactylis glomerata | | | | X | |
| Cornus rugosa | | X | | | | Lindera benz | | X | | | | Danthonia spicata | | | | | |
| Cornus stolonifera | | | | | | | | | | | | Echinochloa crus-galli | | X | | | |
| Corylus cornuta | | | | | | | | | | | | Eleocharis erythropoda | | | | | |
| Crataegus monogyna | | | | | | | | | | | | Eleocharis | | | | | |
| Crataegus punctata | | | | | | | | | | | | Elymus virginicus | | X | | | |
| Crataegus sp. | | X | | X | | | | | | | | Elymus | | | | | |
| Crataegus | | | | | | | | | | | | Festuca arundinacea | | | | | |
| Diervilla lonicera | | | | | | | | | | | | Glyceria striata | | X | | | |
| Fagus grandifolia | | | | | | | | | | | | Glyceria | | | | | |
| Fraxinus americana | | | | | | | | | | | | Juncus dudleyi | | | | | |
| Fraxinus nigra | | | | | | FERNS | | | | | | Juncus effusus | | | | | |
| Fraxinus pennsylvanica | | X | | X | | Adiantum pedatum | | | | | | Juncus tenuis | | | | | |
| Ilex verticillata | | | | | | Athyrium filix-femina | | | | | | Juncus | | | | | |
| Juglans cinerea | | | | | | Botrychium multifidum | | | | | | Juncus | | | | | |
| Juglans nigra | | | | | | Botrychium virginianum | | | | | | Leersia oryzoides | | | | | |
| Lonicera morrowi | | | | | | Cystopteris bulbifera | | | | | | Muhlenbergia | | | | | |
| Lonicera tatarica | | | | | | Dryopteris carthusiana | | X | | | | Oryzopsis asperifolia | | | | | |
| Lonicera | | | | | | Dryopteris cristata | | | | | | Panicum | | | | | |
| Malus pomila | | X | | X | | Dryopteris marginalis | | | | | | Panicum | | | | | |
| Ostrya virginiana | | X | | X | | Dryopteris | | | | | | Phalaris arundinacea | | | | X | |
| Parthenocissus inserta | | | | | | Equisetum arvense | | X | | | | Phleum pratense | | | | X | |
| Populus balsamifera | | X | | | | Equisetum hyemale | | | | | | Phragmites australis | | | | | |
| Populus grandidentata | | | | | | Equisetum variegatum | | | | | | Poa compressus | | | | | |
| Populus tremuloides | | X | | | | Equisetum | | | | | | Poa pratensis | | | | | X |
| Populus | | | | | | Gymnocarpium dryopteris | | | | | | Poa | | | | | |
| Prunus pennsylvanica | | | | | | Lycopodium digitatum | | | | | | Scirpus atrovirens | | | | | |
| Prunus serotina | | X | | X | | Lycopodium obscurum | | | | | | Scirpus cyperinus | | | | | |
| Prunus virginiana | | X | | X | | Lycopodium | | | | | | Scirpus validus | | | | | |
| Prunus | | | | | | Lycopodium | | | | | | Scirpus | | | | | |
| Quercus macrocarpa | | | | | | Mattuccia struthiopteris | | | | | | Scirpus | | | | | |
| Quercus rubra | | | | | | Onoclea sensibilis | | X | | | | Setaria glauca | | X | | | |
| Quercus | | | | | | Osmunda cinnamomina | | | | | | Sparganium | | | | | |
| Rhamnus cathartica | | X | | X | | Osmunda regalis | | | | | | Typha angustifolia | | | | | |
| Rhus radicans | | X | | X | | Polystichum acrostichoides | | | | | | Typha latifolia | | | | | |
| Rhus typhina | | | | | | Pteridium aquilinum | | | | | | Typha x glauca | | | | | |
| Ribes americana | | X | | | | Thelypteris palustris | | | | | | | | | | | |
| Ribes cynosbati | | | | | | | | | | | | | | | | | |
| Ribes x rubrum | | | | X | | | | | | | | | | | | | |
| Robinia pseudo-acacia | | | | | | | | | | | | | | | | | |
| Eucalyptus | | X | | | | | | | | | | | | | | | |
| Birch | | X | | | | | | | | | | | | | | | |
| Blackberry | | X | | | | | | | | | | | | | | | |
| Black Poison Tree | | X | | | | | | | | | | | | | | | |

| | | |
|-----------------------------------|-----------------------------------|-----------|
| ELC WILDLIFE | SITE: <u>Goshan 291 & 300</u> | |
| | POLYGON: | |
| | DATE: <u>Nov 7, 2011</u> | |
| | SURVEYORS: <u>Kohnstra</u> | |
| | START TIME: <u>13:45</u> | END TIME: |

| | | | |
|----------------------|------------------------|------------------|-------------------------|
| TEMP (°C): <u>13</u> | CLOUD (10th): <u>9</u> | WIND: <u>1-2</u> | PRECIPITATION: <u>0</u> |
| CONDITIONS: | | | |

POTENTIAL WILDLIFE HABITAT:

| | |
|--------------|-------------|
| VERNAL POOLS | SNAGS |
| HIBERNACULA | FALLEN LOGS |
| | |

SPECIES LIST: Feature 291

| TY | SP. CODE | EV | NOTES | # |
|----|---------------------|----------------|-----------------------------|---|
| B | HAWO | OB | | |
| | BCCH | | | |
| | DOWO | | | |
| | NOFL | VO | | |
| M | WT Deer | TK | finders between 291 and 300 | |
| | Coyote | TK | " " | |
| | Turkey | TK | " " | |
| | Potential Amphibian | Breeding Areas | | |

Feature 300

| TY | SP. CODE | EV | NOTES | # |
|----|---------------------------------------|----|--------------------|---|
| B | BLJA | OB | | |
| | DOWO | | | |
| | AMSO | VO | | |
| | HAWO | | Feather | |
| | W. Turkey | | | |
| M | Raccoon | SC | | |
| H | Wood Frog | OB | forest floor photo | |
| H | Spring Peeper | VO | | |
| | Deep pool suitable for Amphibian at - | | | |

451945
4797095

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)

Plant Species List
2012

| Dicot Herbs - Asteraceae | | | | | | Dicot Herbs | | | | | | Dicot Herbs | | | | | |
|---|---|---|---|---|--|---|---|---|---|---|--|---|---|---|---|---|--|
| 1 | 2 | 3 | 4 | 5 | | 1 | 2 | 3 | 4 | 5 | | 1 | 2 | 3 | 4 | 5 | |
| Common Yarrow (<i>Achillea millefolium</i>) | | | | | | Shepherd's Purse (<i>Capsella bursa-pastoris</i>) | | | | | | Kidney-leaf Buttercup (<i>Ranunculus abortivus</i>) | | | | | |
| White Snakeroot (<i>Ageratina altissima</i>) | | | | | | Cutleaf Toothwort (<i>Cardamine concatenata</i>) | | | | | | Tall Buttercup (<i>Ranunculus acris</i>) | | | | | |
| Com. Ragweed (<i>Ambrosia artemisiifolia</i>) | | | | | | Toothwort (<i>Cardamine diphylla</i>) | | | | | | Hooked Buttercup (<i>Ranunculus recurvatus</i>) | | | | | |
| Giant Ragweed (<i>Ambrosia trifida</i>) | | | | | | Penn. Bitter-cress (<i>Cardamine pennsylvanica</i>) | | | | | | <i>Ranunculus</i> | | | | | |
| Field Pussycats (<i>Antennaria neglecta</i>) | | | | | | <i>Cardamine</i> | | | | | | Sheep Sorrel (<i>Rumex acetosella</i>) | | | | | |
| <i>Artemisia</i> | | | | | | Blue Cohosh (<i>Caulophyllum thalictroides</i>) | | | | | | Curly-leaf Dock (<i>Rumex crispus</i>) | | | | | |
| Common Burdock (<i>Arctium minus</i>) | | | | | | Mouse-ear Chickweed (<i>Cerastium fontanum</i>) | | | | | | Bitter Dock (<i>Rumex obtusifolius</i>) | | | | | |
| Nodding Beggar-ticks (<i>Bidens cernua</i>) | | | | | | Turtlehead (<i>Chelone glabra</i>) | | | | | | Bloodroot (<i>Sanguinaria canadense</i>) | | | | | |
| Devil's Beggar-ticks (<i>Bidens frondosa</i>) | | | | | | Spotted Water-hemlock (<i>Cicuta maculata</i>) | | | | | | Black Snakeroot (<i>Sanicula marilandica</i>) | | | | | |
| Spotted Knapweed (<i>Centaurea biebersteinii</i>) | | | | | | Water-hemlock (<i>Cicuta virosa</i>) | | | | | | Bouncing Bet (<i>Saponaria officinalis</i>) | | | | | |
| Brown Knapweed (<i>Centaurea jacea</i>) | | | | | | Enchanter's Nightshade (<i>Circaea lutetiana</i>) | | | | | | Marsh Skullcap (<i>Scutellaria galericulata</i>) | | | | | |
| Chicory (<i>Cichorium intybus</i>) | | | | | | Carolina Spring Beauty (<i>Claytonia caroliniana</i>) | | | | | | Mad Dog Skullcap (<i>Scutellaria lateriflora</i>) | | | | | |
| Canada Thistle (<i>Cirsium arvense</i>) | | | | | | Virginia Spring Beauty (<i>Claytonia virginica</i>) | | | | | | White Campion (<i>Silene latifolia</i>) | | | | | |
| Bull Thistle (<i>Cirsium vulgare</i>) | | | | | | Virgin's-bower (<i>Clematis virginiana</i>) | | | | | | Bladder Campion (<i>Silene vulgaris</i>) | | | | | |
| Horseweed (<i>Conyza canadensis</i>) | | | | | | Field Bindweed (<i>Convolvulus arvensis</i>) | | | | | | Hemlock Water-parnsnip (<i>Sium suave</i>) | | | | | |
| Daisy Fleabane (<i>Erigeron annuus</i>) | | | | | | Dog-strangling Vine (<i>Cynanchum rossicum</i>) | | | | | | Bitter Nightshade (<i>Solanum dulcamara</i>) | | | | | |
| Philadelphia Fleabane (<i>Erig. philadelphicus</i>) | | | | | | Wild Carrot (<i>Daucus carota</i>) | | | | | | Black Nightshade (<i>Solanum nigrum</i>) | | | | | |
| <i>Erigeron</i> | | | | | | Deptford Pink (<i>Dianthus armeria</i>) | | | | | | Grassleaf Stitchwort (<i>Stellaria graminea</i>) | | | | | |
| Joe-pye-weed (<i>Eupatorium maculatum</i>) | | | | | | Squirrel-corn (<i>Dicentra canadensis</i>) | | | | | | Common Chickweed (<i>Stellaria media</i>) | | | | | |
| Boneset (<i>Eupatorium perforatum</i>) | | | | | | Dutchman's-breeches (<i>Dicentra cucullaria</i>) | | | | | | Early Meadow-rue (<i>Thalictrum dioicum</i>) | | | | | |
| Large-leaved Aster (<i>Eurybia macrophylla</i>) | | | | | | Wild Teasel (<i>Dipsacus fullonum</i>) | | | | | | Tall Meadow-rue (<i>Thalictrum pubescens</i>) | | | | | |
| Flat-top Goldenrod (<i>Euthamia graminifolia</i>) | | | | | | Wild Cucumber (<i>Echinocystis lobata</i>) | | | | | | Field Penny-cress (<i>Thlaspi arvense</i>) | | | | | |
| Orange Hawkweed (<i>Hieracium aurantiacum</i>) | | | | | | Viper's Bugloss (<i>Echium vulgare</i>) | | | | | | Foamflower (<i>Tiarella cordifolia</i>) | | | | | |
| Field Hawkweed (<i>Hieracium caespitosum</i>) | | | | | | Northern Willow-herb (<i>Epilobium ciliatum</i>) | | | | | | Star-flower (<i>Trientalis borealis</i>) | | | | | |
| <i>Hieracium</i> | | | | | | Hairy Willow-herb (<i>Epilobium hirsutum</i>) | | | | | | Red Clover (<i>Trifolium pratense</i>) | | | | | |
| Elecampane (<i>Inula helenium</i>) | | | | | | Small-fl. Willow-herb (<i>Epilobium parviflorum</i>) | | | | | | White Clover (<i>Trifolium repens</i>) | | | | | |
| Prickly Lettuce (<i>Lactuca scariola</i>) | | | | | | <i>Epilobium</i> | | | | | | <i>Trifolium</i> | | | | | |
| <i>Lactuca</i> | | | | | | Worm Mustard (<i>Erysimum cheiranthoides</i>) | | | | | | Stinging Nettle (<i>Urtica dioica</i>) | | | | | |
| Ox-eye Daisy (<i>Leucanthemum vulgare</i>) | | | | | | <i>Euphorbia</i> | | | | | | Greater Bladderwort (<i>Utricularia vulgaris</i>) | | | | | |
| Pineapple-weed (<i>Matricaria discolor</i>) | | | | | | Hemp Nettle (<i>Galeopsis tetrahit</i>) | | | | | | Common Mullen (<i>Verbascum thapsus</i>) | | | | | |
| Tall White Lettuce (<i>Prenanthes altissima</i>) | | | | | | Wild Madder (<i>Galium mollugo</i>) | | | | | | Blue Vervain (<i>Verbena hastata</i>) | | | | | |
| Black-eyed Susan (<i>Rudbeckia hirta</i>) | | | | | | Marsh Bedstraw (<i>Galium palustre</i>) | | | | | | White Vervain (<i>Verbena urticifolia</i>) | | | | | |
| Tall Goldenrod (<i>Solidago altissima</i>) | | | | | | Sweet-scented Bedstraw (<i>Galium triflorum</i>) | | | | | | Water Speedwell (<i>Veron. anagallis-aquatica</i>) | | | | | |
| Blue-stem Goldenrod (<i>Solidago caesia</i>) | | | | | | <i>Galium</i> | | | | | | Common Speedwell (<i>Veronica officinalis</i>) | | | | | |
| Canada Goldenrod (<i>Solidago canadensis</i>) | | | | | | Spotted Geranium (<i>Geranium maculatum</i>) | | | | | | <i>Veronica</i> | | | | | |
| Zig-zag Goldenrod (<i>Solidago flexicaulis</i>) | | | | | | Herb-robert (<i>Geranium robertianum</i>) | | | | | | Cow Vetch (<i>Vicia cracca</i>) | | | | | |
| Giant Goldenrod (<i>Solidago gigantea</i>) | | | | | | Yellow Avens (<i>Geum aleppicum</i>) | | | | | | <i>Vicia</i> | | | | | |
| Early Goldenrod (<i>Solidago juncea</i>) | | | | | | White Avens (<i>Geum canadense</i>) | | | | | | Periwinkle (<i>Vinca minor</i>) | | | | | |
| Gray Goldenrod (<i>Solidago nemoralis</i>) | | | | | | Urban Avens (<i>Geum urbanum</i>) | | | | | | Dog Violet (<i>Viola conspersa</i>) | | | | | |
| <i>Solidago</i> (f) | | | | | | Dame's Rocket (<i>Hesperis matronalis</i>) | | | | | | Yellow Violet (<i>Viola pubescens</i>) | | | | | |
| Field Sow-thistle (<i>Sonchus arvensis</i>) | | | | | | Virg. Water-leaf (<i>Hydrophyllum virginianum</i>) | | | | | | Com. Blue Violet (<i>Viola sororia</i>) | | | | | |
| <i>Sonchus</i> | | | | | | Com. St. John's-wort (<i>Hypericum perforatum</i>) | | | | | | <i>Viola</i> | | | | | |
| Heart-leaf Aster (<i>Symph. cordifolium</i>) | | | | | | Spotted Jewelweed (<i>Impatiens capensis</i>) | | | | | | | | | | | |
| Heath Aster (<i>Symphotrichum ericoides</i>) | | | | | | Wood Nettle (<i>Laportea canadensis</i>) | | | | | | | | | | | |
| Tall White Aster (<i>Symph. lanceolatum</i>) | | | | | | Motherwort (<i>Leonurus cardiaca</i>) | | | | | | | | | | | |
| Calico Aster (<i>Symphotrichum lateriflorum</i>) | | | | | | Field Peppergrass (<i>Lepidium campestre</i>) | | | | | | | | | | | |
| New England Aster (<i>Symph. novae-angliae</i>) | | | | | | Eur. Gromwell (<i>Lithospermum officinale</i>) | | | | | | | | | | | |
| Purple-stem Aster (<i>Symph. puniceus</i>) | | | | | | Butter & Eggs (<i>Linaria vulgaris</i>) | | | | | | | | | | | |
| Common Tansy (<i>Tanacetum vulgare</i>) | | | | | | Great Lobelia (<i>Lobelia siphilitica</i>) | | | | | | | | | | | |
| Common Dandelion (<i>Taraxacum officinale</i>) | | | | | | <i>Lobelia</i> | | | | | | | | | | | |
| Com. Goatsbeard (<i>Tragopogon pratensis</i>) | | | | | | Cut-leaf Bugleweed (<i>Lycopus americanus</i>) | | | | | | | | | | | |
| Cootsfoot (<i>Tussilago farfara</i>) | | | | | | Northern Bugleweed (<i>Lycopus floridus</i>) | | | | | | | | | | | |
| <i>Symphotrichum</i> (f) | | | | | | Fringed Loosestrife (<i>Lysimachia ciliata</i>) | | | | | | | | | | | |
| | | | | | | Moneywort (<i>Lysimachia nummularia</i>) | | | | | | | | | | | |
| | | | | | | <i>Lysimachia</i> | | | | | | | | | | | |
| | | | | | | Purple Loosestrife (<i>Lythrum salicaria</i>) | | | | | | | | | | | |
| | | | | | | Black Medick (<i>Medicago lupulina</i>) | | | | | | | | | | | |
| | | | | | | Alfalfa (<i>Medicago sativa</i>) | | | | | | | | | | | |
| | | | | | | White Sweet-clover (<i>Melilotus alba</i>) | | | | | | | | | | | |
| | | | | | | Yellow Sweet-clover (<i>Melilotus officinalis</i>) | | | | | | | | | | | |
| | | | | | | Wild Mint (<i>Mentha arvensis</i>) | | | | | | | | | | | |
| | | | | | | Wild Bergamot (<i>Monarda fistulosa</i>) | | | | | | | | | | | |
| | | | | | | Small Forget-me-not (<i>Myosotis laxa</i>) | | | | | | | | | | | |
| | | | | | | Forget-me-not (<i>Myosotis scorpioides</i>) | | | | | | | | | | | |
| | | | | | | Water-cress (<i>Nasturtium officinale</i>) | | | | | | | | | | | |
| | | | | | | Com. Evening-primrose (<i>Oenothera biennis</i>) | | | | | | | | | | | |
| | | | | | | Sweet-cicely (<i>Osmorhiza berterii</i>) | | | | | | | | | | | |
| | | | | | | Yellow Wood-sorrel (<i>Oxalis stricta</i>) | | | | | | | | | | | |
| | | | | | | Wild Parsnip (<i>Pastinaca sativa</i>) | | | | | | | | | | | |
| | | | | | | English Plantain (<i>Plantago lanceolata</i>) | | | | | | | | | | | |
| | | | | | | Common Plantain (<i>Plantago major</i>) | | | | | | | | | | | |
| | | | | | | Rugel's Plantain (<i>Plantago rugelii</i>) | | | | | | | | | | | |
| | | | | | | May-apple (<i>Podophyllum peltatum</i>) | | | | | | | | | | | |
| | | | | | | Pale Smartweed (<i>Polygonum lapathifolium</i>) | | | | | | | | | | | |
| | | | | | | Lady's-thumb (<i>Polygonum persicaria</i>) | | | | | | | | | | | |
| | | | | | | Virginia Knotweed (<i>Polygonum virginianum</i>) | | | | | | | | | | | |
| | | | | | | <i>Polygonum</i> | | | | | | | | | | | |
| | | | | | | <i>Polygonum</i> | | | | | | | | | | | |
| | | | | | | Rough Cinquefoil (<i>Potentilla norvegica</i>) | | | | | | | | | | | |
| | | | | | | Rough-fruited Cinquefoil (<i>Potentilla recta</i>) | | | | | | | | | | | |
| | | | | | | Common Cinquefoil (<i>Potentilla simplex</i>) | | | | | | | | | | | |
| | | | | | | <i>Potentilla</i> | | | | | | | | | | | |
| | | | | | | Heal-all (<i>Prunella vulgaris</i>) | | | | | | | | | | | |
| | | | | | | Shinleaf (<i>Pyrola elliptica</i>) | | | | | | | | | | | |

D - Dominant: represented by large numbers, generally forming >10% ground cover or >25% vegetation cover in any one stratum
 F - Fairly common (=Abundant in ELC) generally widespread represented by fairly large numbers of individual clumps, usually forming >10% ground cover
 U - Uncommon (=Occasional in ELC) present as widespread scattered individuals or represented by one or more clumps of many individuals (most species will fall into this category)
 R - Rare: represented in the polygon by less than about five individuals or small clumps

Map Number: 300 GSH 2114
 Date: May 2, 2012
 Surveyors: J.P. + T.S.

Significant Wildlife Habitat Form

AECOM

| | | | | | |
|---------------------|-----------------------------|-----|-------|----------------|--------------|
| Study Area: | BLW | JER | (GSH) | Map #: | 300-GSH/2114 |
| Date: | 2012-05-02 | | | Time Started: | 2:00 P.M. |
| Field Staff: | Tom Skotney Jess Pfeiffer | | | Time Finished: | 2:20 P.M. |
| Weather Conditions: | overcast 15°C, 20 km/h wind | | | | |

Colonial Nesting Tree/Shrub Birds, Osprey Breeding/Feeding, Bald Eagle Breeding/Nesting Habitat
(FET1, FOC, FOM, FOD, SWC, SWM, SWD)

Nest bowls present: No Yes (if yes, photograph and complete the following)

UTMs: _____ Number of nests: _____

Description of nests (location, e.g. in tree/on built structure; material; evidence of recent use; birds present): _____

Description of habitat (note riparian areas if present, evidence of disturbance): _____

Waterfowls Stopover/Nesting, Amphibian Breeding, Turtle Nesting/Over-wintering, Marsh Breeding Birds
(CUM1, CUT1, MAM, MAS, SAS1, SAM1, SAF1, SWD, SWT1, SWT2) (FOC, FOM, FOD, SWC, SWM, SWD, BOO1, FEO1)

Standing water present: No Yes (if yes, photograph and complete the following)

UTMs: _____ Area of standing water delineated on field map:

Water depth (m): _____ % open water: _____ % emergent vegetation: _____

Description of standing water (permanent pool, evidence of annual spring flooding, etc): _____

Area and soil/substrate of shoreline habitat: _____

Type and abundance of cover in open water habitat: _____

Type and abundance of cover in surrounding habitat: _____

Evidence of disturbance (e.g. cattle grazing): _____

Evidence of use by waterfowl, amphibians, turtles (e.g. broken eggs), marsh breeding birds: _____

*****Complete Vernal Pool Habitat Description Form*****

Snake Hibernacula

Fissured rock/foundation or rock/debris pile present: No Yes (if yes, photograph and complete the following)

UTMs: _____ Likelihood to extend below frost line: _____

% canopy cover: _____ % slope: _____ Distance to open canopy (m): _____

Description of fissure or stone pile (composition/material, dimensions, etc): _____

Description of surrounding habitat (type & abundance of cover, evidence of disturbance, etc): _____

Seeps and Springs (FOC, FOM, FOD, SWC, SWM, SWD)

Evidence of seep or spring: No Yes (if yes, photograph and complete the following)

UTMs: _____ Description (indicator species, etc): _____