

PLANT SPECIES INVENTORY

Based on existing data, on-site surveys, and/or the availability of suitable habitat, the following species could occur in the Facility Site:

| | <u>Family</u> | <u>Genus</u> | <u>species</u> | <u>common name</u> | <u>infraspecific rank</u> |
|-----|---------------|----------------------|-----------------------|------------------------|----------------------------|
| 1,2 | Aceraceae | <i>Acer</i> | <i>rubrum</i> | red maple | |
| 2 | Aceraceae | <i>Acer</i> | <i>saccharinum</i> | silver maple | |
| 1,2 | Aceraceae | <i>Acer</i> | <i>saccharum</i> | sugar maple | |
| 2 | Acoraceae | <i>Acorus</i> | <i>americanus</i> | American sweetflag | |
| 1,2 | Adoxaceae | <i>Sambucus</i> | <i>canadensis</i> | elderberry | |
| 1 | Adoxaceae | <i>Viburnum</i> | <i>lentago</i> | nanny berry | |
| 1 | Adoxaceae | <i>Viburnum</i> | <i>nudum</i> | wild raisin | |
| 2 | Alismataceae | <i>Alisma</i> | <i>subcordatum</i> | water plantain | |
| 2 | Alismataceae | <i>Sagittaria</i> | <i>graminea</i> | grass-leaf sagittaria | |
| 2 | Alliaceae | <i>Allium</i> | <i>sp.</i> | wild onion | |
| 1,2 | Anacardiaceae | <i>Rhus</i> | <i>typhina</i> | staghorn sumac | |
| 1,2 | Anacardiaceae | <i>Toxicodendron</i> | <i>radicans</i> | poison ivy | |
| 1,2 | Apiaceae | <i>Daucus</i> | <i>carota</i> | Queen Anne's lace | |
| 1,2 | Apiaceae | <i>Cicuta</i> | <i>bulbifera</i> | water-hemlock | |
| 1,2 | Apocynaceae | <i>Asclepias</i> | <i>incarnata</i> | western swamp milkweed | <i>ssp. incarnata</i> |
| 1,2 | Apocynaceae | <i>Asclepias</i> | <i>syriaca</i> | common milkweed | |
| 1,2 | Apocynaceae | <i>Cynanchum</i> | <i>rossicum</i> | pale swallow-wort | |
| 1,2 | Apocynaceae | <i>Apocynum</i> | <i>cannabinum</i> | Indian hemp | |
| 2 | Apocynaceae | <i>Cynanchum</i> | <i>louisae</i> | black swallow-wort | |
| 2 | Araceae | <i>Arisaema</i> | <i>triphillum</i> | jack-in-the-pulpit | <i>ssp. triphyllum</i> |
| 1,2 | Araceae | <i>Lemna</i> | <i>sp.</i> | duckweed | |
| 2 | Araceae | <i>Peltandra</i> | <i>virginica</i> | arrow arum | |
| 2 | Araliaceae | <i>Aralia</i> | <i>nudicaulis</i> | wild sarsparilla | |
| 1 | Asteraceae | <i>Achillea</i> | <i>millefolium</i> | common yarrow | |
| 1 | Asteraceae | <i>Ageratina</i> | <i>altissima</i> | common white snakeroot | <i>var. altissima</i> |
| 1,2 | Asteraceae | <i>Ambrosia</i> | <i>artemisiifolia</i> | ragweed | |
| 2 | Asteraceae | <i>Ambrosia</i> | <i>trifida</i> | giant ragweed | |
| 2 | Asteraceae | <i>Anaphalis</i> | <i>margaritacea</i> | pearly everlasting | |
| 1,2 | Asteraceae | <i>Arctium</i> | <i>minus</i> | common burdock | |
| 2 | Asteraceae | <i>Berteroa</i> | <i>incana</i> | hoary alyssum | |
| 1,2 | Asteraceae | <i>Bidens</i> | <i>frondosa</i> | devils's beggar-tick | |
| 1 | Asteraceae | <i>Centaurea</i> | <i>jacea</i> | brown knapweed | |
| 1 | Asteraceae | <i>Centaurea</i> | <i>stoebe</i> | spotted knapweed | <i>ssp. micranthos</i> |
| 1,2 | Asteraceae | <i>Cichorium</i> | <i>intybus</i> | chicory | |
| 1 | Asteraceae | <i>Cirsium</i> | <i>vulgare</i> | bull thistle | |
| 1 | Asteraceae | <i>Cirsium</i> | <i>altissima</i> | tall thistle | |
| 1 | Asteraceae | <i>Cirsium</i> | <i>arvense</i> | Canada thistle | |
| 1 | Asteraceae | <i>Conyza</i> | <i>canadensis</i> | horseweed | |
| 2 | Asteraceae | <i>Erechtites</i> | <i>hieraciifolia</i> | common pilewort | <i>var. hieraciifolius</i> |
| 1,2 | Asteraceae | <i>Erigeron</i> | <i>annuus</i> | daisy fleabane | |
| 1 | Asteraceae | <i>Eupatorium</i> | <i>altissimum</i> | tall thoroughwort | |
| 1,2 | Asteraceae | <i>Eupatorium</i> | <i>maculatum</i> | spotted Joe-pye weed | |
| 2 | Asteraceae | <i>Eupatorium</i> | <i>perfoliatum</i> | boneset | |
| 1,2 | Asteraceae | <i>Eupatorium</i> | <i>perfoliatum</i> | boneset | |

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| 1,2 | Asteraceae | <i>Eupatorium</i> | <i>rugosum</i> | white snakeroot | |
| 1,2 | Asteraceae | <i>Euthamia</i> | <i>graminifolia</i> | common flat-topped-goldenrod | |
| 1 | Asteraceae | <i>Eutrochium</i> | <i>purpureum</i> | purple joe-pye weed | |
| 1 | Asteraceae | <i>Eutrochium</i> | <i>maculatum</i> | joe-pye weed | |
| 2 | Asteraceae | <i>Hieracium</i> | <i>sp.</i> | hawkweed | |
| 2 | Asteraceae | <i>Lactuca</i> | <i>biennis</i> | blue lettuce | |
| 1,2 | Asteraceae | <i>Lactuca</i> | <i>serriola</i> | prickly lettuce | |
| 2 | Asteraceae | <i>Leucanthemum</i> | <i>vulgare</i> | ox eye daisy | |
| 1 | Asteraceae | <i>Solidago</i> | <i>canadensis</i> | Canada goldenrod | |
| 1 | Asteraceae | <i>Solidago</i> | <i>rugosa</i> | wrinkle-leaved goldenrod | |
| 2 | Asteraceae | <i>Solidago</i> | <i>juncea</i> | early goldenrod | |
| 2 | Asteraceae | <i>Solidago</i> | <i>gigantea</i> | late goldenrod | |
| 1,2 | Asteraceae | <i>Solidago</i> | <i>rugosa</i> | rough-stem | |
| 1,2 | Asteraceae | <i>Sonchus</i> | <i>arvensis</i> | sow-thistle | |
| 1,2 | Asteraceae | <i>Symphotrichum</i> | <i>ericoides</i> | heath aster | |
| 1,2 | Asteraceae | <i>Symphotrichum</i> | <i>novae-angliae</i> | New England aster | |
| 2 | Asteraceae | <i>Tanacetum</i> | <i>vulgare</i> | tansy | |
| 1 | Asteraceae | <i>Taraxacum</i> | <i>officinale</i> | common dandelion | |
| 1,2 | Asteraceae | <i>Taraxacum</i> | <i>officinale</i> | common dandelion | |
| 1,2 | Asteraceae | <i>Tragopogon</i> | <i>pratensis</i> | yellow goat's beard | |
| 1,2 | Asteraceae | <i>Xanthium</i> | <i>strumarium</i> | common cocklebur | |
| 2 | Athyriaceae | <i>Athyrium</i> | <i>filix-femina</i> | lady fern | |
| 1 | Balsaminaceae | <i>Impatiens</i> | <i>capensis</i> | spotted jewelweed | |
| 1,2 | Berberidaceae | <i>Podophyllum</i> | <i>peltatum</i> | may apple | |
| 2 | Betulaceae | <i>Alnus</i> | <i>incana</i> | speckled alder | |
| 1,2 | Betulaceae | <i>Betula</i> | <i>alleghaniensis</i> | yellow birch | |
| 1,2 | Betulaceae | <i>Betula</i> | <i>papyrifera</i> | paper birch | |
| 2 | Betulaceae | <i>Betula</i> | <i>populifolia</i> | gray birch | |
| 2 | Betulaceae | <i>Carpinus</i> | <i>caroliniana</i> | musclewood | <i>ssp. virginiana</i> |
| 1 | Betulaceae | <i>Ostrya</i> | <i>virginiana</i> | eastern hop-hornbeam | |
| 1,2 | Boraginaceae | <i>Anchusa</i> | <i>arvensis</i> | bugloss | |
| 2 | Boraginaceae | <i>Borago</i> | <i>officinalis</i> | borage | |
| 1,2 | Boraginaceae | <i>Cynoglossum</i> | <i>officinale</i> | hound's tongue | |
| 1,2 | Boraginaceae | <i>Lappula</i> | <i>squarrosa</i> | stickseed | |
| 1,2 | Boraginaceae | <i>Myosotis</i> | <i>scorpioides</i> | forget-me-not | |
| 1 | Brassicaceae | <i>Alliaria</i> | <i>petiolata</i> | garlic mustard | |
| 1,2 | Brassicaceae | <i>Arabis</i> | <i>glabra</i> | towner mustard | |
| 2 | Brassicaceae | <i>Arabis</i> | <i>lyrata</i> | lyre-leaf rock-cress | |
| 1,2 | Brassicaceae | <i>Barbarea</i> | <i>vulgaris</i> | yellow cress | |
| 2 | Brassicaceae | <i>Brassica</i> | <i>nigra</i> | black mustard | |
| 2 | Brassicaceae | <i>Brassica</i> | <i>rapa</i> | field mustard | |
| 1,2 | Brassicaceae | <i>Capsella</i> | <i>bursa-pastoris</i> | common shepherd's purse | |
| 2 | Brassicaceae | <i>Cardamine</i> | <i>pennsylvanica</i> | Pennsylvania bittercress | |
| 2 | Brassicaceae | <i>Draba</i> | <i>arabisans</i> | rock cress | |
| 2 | Brassicaceae | <i>Draba</i> | <i>verna</i> | whitlow grass | |
| 2 | Brassicaceae | <i>Erysimum</i> | <i>cheiranthoides</i> | wormseed mustard | |
| 1,2 | Brassicaceae | <i>Hesperis</i> | <i>matronalis</i> | dame's rocket | |

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| 2 | Brassicaceae | <i>Lepidium</i> | <i>campestre</i> | field pepper-grass | |
| 2 | Brassicaceae | <i>Rorippa</i> | <i>islandica</i> | marsh yellow cress | |
| 1,2 | Butomaceae | <i>Butomus</i> | <i>umbellatus</i> | flowering rush | |
| 1,2 | Campanulaceae | <i>Campanula</i> | <i>rotundifolia</i> | bluebell | |
| 2 | Campanulaceae | <i>Triodanis</i> | <i>perfoliata</i> | venus looking glass | |
| 1,2 | Caprifoliaceae | <i>Lonicera</i> | <i>morrowii</i> | Morrow's honeysuckle | |
| 2 | Caprifoliaceae | <i>Lonicera</i> | <i>canadensis</i> | fly honeysuckle | |
| 2 | Caprifoliaceae | <i>Lonicera</i> | <i>dioica</i> | wild honeysuckle | |
| 2 | Caprifoliaceae | <i>Symphoricarpos</i> | <i>orbiculatus</i> | coralberry | |
| 2 | Caryophyllaceae | <i>Arenaria</i> | <i>lateriflora</i> | blunt-leaved sandwort | |
| 2 | Caryophyllaceae | <i>Arenaria</i> | <i>serpyllifolia</i> | thyme-leaved sandwort | |
| 2 | Caryophyllaceae | <i>Arenaria</i> | <i>sp.</i> | sandwort | |
| 1,2 | Caryophyllaceae | <i>Cerastium</i> | <i>arvense</i> | field chickweed | |
| 1 | Caryophyllaceae | <i>Cerastium</i> | <i>fontanum</i> | common mouse-ear chickweed | <i>ssp. vulgare</i> |
| 2 | Caryophyllaceae | <i>Dianthus</i> | <i>armeria</i> | Deptford pink | <i>ssp. armeria</i> |
| 2 | Caryophyllaceae | <i>Sabulina</i> | <i>michauxii</i> | rockartia wort | <i>var. michauxii</i> |
| 2 | Caryophyllaceae | <i>Silene</i> | <i>vulgaris</i> | bladder-campion | |
| 2 | Caryophyllaceae | <i>Stellaria</i> | <i>graminea</i> | lesser stitchwort | |
| 1,2 | Ceratophyllaceae | <i>Ceratophyllum</i> | <i>demersum</i> | coontail | |
| 1,2 | Chenopodiaceae | <i>Chenopodium</i> | <i>album</i> | lamb's-quarters | |
| 2 | Chenopodiaceae | <i>Chenopodium</i> | <i>pratense</i> | narrow-leaf goosefoot | |
| 1,2 | Chenopodiaceae | <i>Polycnemum</i> | <i>majus</i> | large needleleaf | |
| 1,2 | Convolvulaceae | <i>Convolvulus</i> | <i>arvensis</i> | field bindweed | |
| 1,2 | Convolvulaceae | <i>Cuscuta</i> | <i>gronovii</i> | common dodder | |
| 1,2 | Cornaceae | <i>Cornus</i> | <i>amomum</i> | silky dogwood | <i>ssp. amomum</i> |
| 2 | Cornaceae | <i>Cornus</i> | <i>rugosa</i> | round-leaf dogwood | |
| 1,2 | Cornaceae | <i>Cornus</i> | <i>sericea</i> | red-osier dogwood | |
| 2 | Crassulaceae | <i>Sedum</i> | <i>acre</i> | mossy stonecrop | |
| 1,2 | Cupressaceae | <i>Juniperus</i> | <i>communis</i> | common juniper | |
| 2 | Cupressaceae | <i>Juniperus</i> | <i>horizontalis</i> | creeping cedar | |
| 1 | Cupressaceae | <i>Juniperus</i> | <i>virginiana</i> | eastern red cedar | <i>var. virginiana</i> |
| 1 | Cupressaceae | <i>Thuja</i> | <i>occidentalis</i> | northern white cedar | |
| 2 | Cyperaceae | <i>Carex</i> | <i>aquatilis</i> | water sedge | |
| 2 | Cyperaceae | <i>Carex</i> | <i>blanda</i> | eastern woodland sedge | |
| 2 | Cyperaceae | <i>Carex</i> | <i>brunnescens</i> | brownish sedge | |
| 2 | Cyperaceae | <i>Carex</i> | <i>comosa</i> | longhair sedge | |
| 1 | Cyperaceae | <i>Carex</i> | <i>cristatella</i> | crested sedge | |
| 2 | Cyperaceae | <i>Carex</i> | <i>disperma</i> | softleaf sedge | |
| 2 | Cyperaceae | <i>Carex</i> | <i>flava</i> | yellow sedge | |
| 2 | Cyperaceae | <i>Carex</i> | <i>gracillima</i> | graceful sedge | |
| 2 | Cyperaceae | <i>Carex</i> | <i>granularis</i> | limestone meadow sedge | |
| 2 | Cyperaceae | <i>Carex</i> | <i>hystericina</i> | bottlebrush sedge | |
| 1,2 | Cyperaceae | <i>Carex</i> | <i>intumescens</i> | bladder sedge | |
| 1 | Cyperaceae | <i>Carex</i> | <i>lacustris</i> | lake-bank sedge | |
| 2 | Cyperaceae | <i>Carex</i> | <i>laxiflora</i> | broad looseflower sedge | |

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| 1 | Cyperaceae | <i>Carex</i> | <i>lenticularis</i> | lake shore sedge | |
| 2 | Cyperaceae | <i>Carex</i> | <i>leporina</i> | eggbract sedge | |
| 2 | Cyperaceae | <i>Carex</i> | <i>lupulina</i> | hop sedge | |
| 2 | Cyperaceae | <i>Carex</i> | <i>lurida</i> | shallow sedge | |
| 1 | Cyperaceae | <i>Carex</i> | <i>molesta</i> | troublesome sedge | |
| 2 | Cyperaceae | <i>Carex</i> | <i>pellita</i> | wooly sedge | |
| 2 | Cyperaceae | <i>Carex</i> | <i>platyphylla</i> | broad-leaf sedge | |
| 2 | Cyperaceae | <i>Carex</i> | <i>pseudocyperus</i> | cypress-like sedge | |
| 2 | Cyperaceae | <i>Carex</i> | <i>rosea</i> | rosy sedge | |
| 2 | Cyperaceae | <i>Carex</i> | <i>scandens</i> | American bitter-sweet sedge | |
| 2 | Cyperaceae | <i>Carex</i> | <i>scoparia</i> | broom sedge | |
| 2 | Cyperaceae | <i>Carex</i> | <i>sprengelii</i> | long-beaked sedge | |
| 1 | Cyperaceae | <i>Carex</i> | <i>stipata</i> | awl-fruited sedge | <i>var. stipata</i> |
| 2 | Cyperaceae | <i>Carex</i> | <i>tenera</i> | quill sedge | |
| 2 | Cyperaceae | <i>Carex</i> | <i>trisperma</i> | three-seeded sedge | |
| 1 | Cyperaceae | <i>Carex</i> | <i>vulpinoides</i> | fox sedge | |
| 2 | Cyperaceae | <i>Centaurea</i> | <i>maculosa</i> | bushy knapweed | |
| 2 | Cyperaceae | <i>Cyperus</i> | <i>strigosus</i> | straw colored flatsedge | |
| 1,2 | Cyperaceae | <i>Echium</i> | <i>vulgare</i> | viper's bugloss | |
| 1 | Cyperaceae | <i>Eleocharis</i> | <i>palustris</i> | common spike-rush | |
| 2 | Cyperaceae | <i>Eleocharis</i> | <i>acicularis</i> | needle spikerush | |
| 2 | Cyperaceae | <i>Eleocharis</i> | <i>erythropoda</i> | bald spikerush | |
| 1,2 | Cyperaceae | <i>Eleocharis</i> | <i>obtusa</i> | blunt spikerush | |
| 1,2 | Cyperaceae | <i>Eleocharis</i> | <i>sp.</i> | spikerush | |
| 1,2 | Cyperaceae | <i>Juncus</i> | <i>sp.</i> | rush | |
| 1 | Cyperaceae | <i>Scheonoplectus</i> | <i>tabernaemontani</i> | soft-stemmed bulrush | |
| 1,2 | Cyperaceae | <i>Scirpus</i> | <i>atrovirens</i> | dark-green bulrush | |
| 1,2 | Cyperaceae | <i>Scirpus</i> | <i>microcarpus</i> | panicked bulrush | |
| 1,2 | Cyperaceae | <i>Scirpus</i> | <i>cyperinus</i> | woolgrass | |
| 1,2 | Cyperaceae | <i>Scirpus</i> | <i>tabernaemontani</i> | soft-stem bulrush | |
| 2 | Cystopteridaceae | <i>Cystopteris</i> | <i>fragilis</i> | fragile fern | |
| 2 | Dennstaedtiaceae | <i>Pteridium</i> | <i>aquilinum</i> | bracken fern | |
| 1 | Dipsacaceae | <i>Dipsacus</i> | <i>fullonum</i> | wild teasel | |
| 2 | Dryopteridaceae | <i>Dryopteris</i> | <i>campyloptera</i> | spreading wood fern | |
| 2 | Dryopteridaceae | <i>Dryopteris</i> | <i>crinata</i> | crested woodfern | |
| 2 | Dryopteridaceae | <i>Dryopteris</i> | <i>marginalis</i> | marginal woodfern | |
| 2 | Elaeagnaceae | <i>Shepherdia</i> | <i>canadensis</i> | Canada buffalo-berry | |
| 2 | Equisetaceae | <i>Equisetum</i> | <i>arvense</i> | field horsetail | |
| 2 | Ericaceae | <i>Vaccinium</i> | <i>corymbosum</i> | highbush blueberry | |
| 2 | Euphorbiaceae | <i>Acalypha</i> | <i>virginica</i> | Virginia three-seeded mercury | |
| 2 | Euphorbiaceae | <i>Euphorbia</i> | <i>cyparissias</i> | cypress spurge | |
| 1,2 | Euphorbiaceae | <i>Euphorbia</i> | <i>esula</i> | leafy spurge | |
| 2 | Fabaceae | <i>Desmodium</i> | <i>canadense</i> | showy tick-trefoil | |
| 2 | Fabaceae | <i>Lathyrus</i> | <i>latifolius</i> | everlasting pea | |
| 1,2 | Fabaceae | <i>Lotus</i> | <i>corniculatus</i> | common bird's-foot trefoil | |

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| 1,2 | Fabaceae | <i>Medicago</i> | <i>sativa</i> | alfalfa | |
| 1,2 | Fabaceae | <i>Medicago</i> | <i>lupulina</i> | black medic | |
| 1,2 | Fabaceae | <i>Mellilotus</i> | <i>alba</i> | white sweetclover | |
| 2 | Fabaceae | <i>Trifolium</i> | <i>aureum</i> | yellow hop clover | |
| 2 | Fabaceae | <i>Trifolium</i> | <i>hybridum</i> | alsike clover | |
| 1,2 | Fabaceae | <i>Trifolium</i> | <i>repens</i> | white clover | |
| 1,2 | Fabaceae | <i>Vicia</i> | <i>cracca</i> | cow vetch | |
| 2 | Fabaceae | <i>Vicia</i> | <i>tetrasperma</i> | slender vetch | |
| 1 | Fagaceae | <i>Quercus</i> | <i>alba</i> | white oak | |
| 2 | Fagaceae | <i>Quercus</i> | <i>macrocarpa</i> | bur oak | |
| 1,2 | Fagaceae | <i>Quercus</i> | <i>rubra</i> | northern red oak | |
| 2 | Fagaceae | <i>Quercus</i> | <i>velutina</i> | black oak | |
| 2 | Geraniaceae | <i>Geranium</i> | <i>bicknellii</i> | cranesbill geranium | |
| 2 | Geraniaceae | <i>Geranium</i> | <i>carolinianum</i> | Carolina geranium | |
| 2 | Geraniaceae | <i>Geranium</i> | <i>maculatum</i> | wild geranium | |
| 2 | Geraniaceae | <i>Geranium</i> | <i>molle</i> | dove's-foot cranesbill | |
| 2 | Geraniaceae | <i>Geranium</i> | <i>pusillum</i> | small flowered cranesbill | |
| 2 | Geraniaceae | <i>Geranium</i> | <i>robertianum</i> | herb robert | |
| 1,2 | Grossulariaceae | <i>Ribes</i> | <i>cynosbati</i> | wild gooseberry | |
| 2 | Hydrocharitaceae | <i>Elodea</i> | <i>candensis</i> | waterweed | |
| 2 | Hydrocharitaceae | <i>Vallisneria</i> | <i>americana</i> | water celery | |
| 1,2 | Hypericaceae | <i>Hypericum</i> | <i>perforatum</i> | common St. John's-wort | <i>ssp. perforatum</i> |
| 1,2 | Iridaceae | <i>Iris</i> | <i>versicolor</i> | blueflag | |
| 2 | Iridaceae | <i>Sisyrinchium</i> | <i>angustifolium</i> | blue-eyed | |
| 1 | Juglandaceae | <i>Carya</i> | <i>ovata</i> | shagbark hickory | |
| 2 | Juglandaceae | <i>Carya</i> | <i>cordifomis</i> | bitternut hickory | |
| 1,2 | Juncaceae | <i>Juncus</i> | <i>effusus</i> | soft rush | |
| 1,2 | Juncaceae | <i>Juncus</i> | <i>tenuis</i> | path rush | |
| 1 | Lamiaceae | <i>Lycopus</i> | <i>americanus</i> | American bugleweed | |
| 1 | Lamiaceae | <i>Lycopus</i> | <i>uniflorus</i> | northern bugleweed | |
| 1 | Lamiaceae | <i>Clinopodium</i> | <i>vulgare</i> | wild-basil | |
| 2 | Lamiaceae | <i>Agastache</i> | <i>scrophulariifolia</i> | purple giant hyssop | |
| 2 | Lamiaceae | <i>Galeopsis</i> | <i>tetrahit</i> | hemp nettle | |
| 1,2 | Lamiaceae | <i>Trichostema</i> | <i>brachiatum</i> | false pennyroyal | |
| 1,2 | Lamiaceae | <i>Leonurus</i> | <i>cardiaca</i> | motherwort | |
| 1,2 | Lamiaceae | <i>Lycopus</i> | <i>americana</i> | water bugleweed | |
| | Lamiaceae | <i>Lycopus</i> | <i>sp.</i> | bugleweed | |
| 1,2 | Lamiaceae | <i>Mentha</i> | <i>arvensis</i> | field mint | |
| 2 | Lamiaceae | <i>Mentha</i> | <i>piperita</i> | peppermint | |
| 2 | Lamiaceae | <i>Mentha</i> | <i>spicata</i> | spearmint | |
| 1,2 | Lamiaceae | <i>Nepeta</i> | <i>cataria</i> | catnip | |
| 1,2 | Lamiaceae | <i>Prunella</i> | <i>vulgaris</i> | heal-all | |
| 2 | Lamiaceae | <i>Scutellaria</i> | <i>galericulata</i> | hooded skullcap | |
| 2 | Lamiaceae | <i>Scutellaria</i> | <i>lateriflora</i> | mad-dog skullcap | |
| 2 | Lamiaceae | <i>Scutellaria</i> | <i>parvula</i> | small skullcap | <i>var. parvula</i> |

PLANT SPECIES INVENTORY

Based on existing data, on-site surveys, and/or the availability of suitable habitat, the following species could occur in the Facility Site:

| | | | | | |
|-----|------------------|---------------------|---------------------------|------------------------------|-------------------------|
| 2 | Lamiaceae | <i>Stachys</i> | <i>tenuifolia</i> | creeping hedge-nettle | |
| 1,2 | Lamiaceae | <i>Teucrium</i> | <i>canadense</i> | American germander | |
| 2 | Lamiaceae | <i>Thymus</i> | <i>pulegioides</i> | wild thyme | |
| 2 | Lentibulariaceae | <i>Utricularia</i> | <i>sp.</i> | bladderwort | |
| 2 | Liliaceae | <i>Streptopus</i> | <i>amplexifolius</i> | twisted stalk | |
| 2 | Lycopodiaceae | <i>Huperzia</i> | <i>lucidula</i> | shining firmoss | |
| 2 | Lysimachiaceae | <i>Lysimachia</i> | <i>borealis</i> | starflower | |
| 1,2 | Lysimachiaceae | <i>Lysimachia</i> | <i>nummularia</i> | moneywort | |
| 2 | Lythraceae | <i>Decodon</i> | <i>verticillatus</i> | swamp loosestrife | |
| 1,2 | Lythraceae | <i>Lythrum</i> | <i>salicaria</i> | purple loosestrife | |
| 1,2 | Malvaceae | <i>Tilia</i> | <i>americana</i> | American basswood | <i>var. americana</i> |
| 2 | Nymphaeaceae | <i>Nuphar</i> | <i>variegata</i> | yellow pondlily | |
| 2 | Nymphaeaceae | <i>Nymphaea</i> | <i>odorata</i> | white water lily | |
| 2 | Nyssaceae | <i>Nyssa</i> | <i>sylvatica</i> | black gum | |
| 2 | Oleaceae | <i>Fraxinus</i> | <i>americana</i> | white ash | |
| 2 | Oleaceae | <i>Fraxinus</i> | <i>nigra</i> | black ash | |
| 1 | Oleaceae | <i>Fraxinus</i> | <i>pennsylvanica</i> | green ash | |
| 1,2 | Oleaceae | <i>Syringa</i> | <i>vulgaris</i> | lilac | |
| 2 | Onagraceae | <i>Circaea</i> | <i>alpina</i> | small enchanter's nightshade | |
| 2 | Onagraceae | <i>Circaea</i> | <i>lutetiana</i> | enchanter's nightshade | |
| 1,2 | Onagraceae | <i>Epilobium</i> | <i>ciliatum</i> | hairy willow-herb | <i>ssp. ciliatum</i> |
| 2 | Onagraceae | <i>Epilobium</i> | <i>coloratum</i> | purple-leaf willow-herb | |
| 2 | Onagraceae | <i>Epilobium</i> | <i>glandulosum</i> | northern willow-herb | |
| 2 | Onagraceae | <i>Epilobium</i> | <i>sp.</i> | willow-herb | |
| 2 | Onagraceae | <i>Ludwigia</i> | <i>palustris</i> | water purslane | |
| 1,2 | Onocleaceae | <i>Onoclea</i> | <i>sensibilis</i> | sensitive fern | |
| 2 | Ophioglossaceae | <i>Botrychium</i> | <i>dissectum</i> | cut-leaf grape fern | |
| 2 | Orchidaceae | <i>Epipactis</i> | <i>helleborine</i> | helleborine | |
| 1 | Osmundaceae | <i>Osmunda</i> | <i>claytoniana</i> | interrupted fern | |
| 1,2 | Osmundaceae | <i>Osmunda</i> | <i>cinnamomeum</i> | cinnamon fern | <i>var. cinnamomeum</i> |
| 2 | Osmundaceae | <i>Osmunda</i> | <i>regalis</i> | royal fern | |
| 2 | Oxalidaceae | <i>Oxalis</i> | <i>stricta</i> | lady's sorrell | |
| 2 | Phrymaceae | <i>Mimulus</i> | <i>ringens</i> | common monkeyflower | |
| 2 | Pinaceae | <i>Abies</i> | <i>balsamea</i> | balsam fir | |
| 2 | Pinaceae | <i>Picea</i> | <i>glauca</i> | white spruce | |
| 1,2 | Pinaceae | <i>Tsuga</i> | <i>canadensis</i> | eastern hemlock | |
| 1 | Plantaginaceae | <i>Plantago</i> | <i>major</i> | common plantain | |
| 1,2 | Plantaginaceae | <i>Linaria</i> | <i>vulgaris</i> | butter and eggs | |
| 2 | Plantaginaceae | <i>Penstemon</i> | <i>hirsutus</i> | beard-tongue | |
| 1,2 | Plantaginaceae | <i>Plantago</i> | <i>lanceolata</i> | narrow-leaf plantain | |
| 1,2 | Plantaginaceae | <i>Plantago</i> | <i>major</i> | common plantain | |
| 2 | Plantaginaceae | <i>Scrophularia</i> | <i>lanceolata</i> | lance-leaf figwort | |
| 2 | Plantaginaceae | <i>Veronica</i> | <i>anagallis-aquatica</i> | water speedwell | |
| 2 | Plantaginaceae | <i>Veronica</i> | <i>officinalis</i> | gypsy-weed | |
| 2 | Plantaginaceae | <i>Veronica</i> | <i>peregrina</i> | purslane-speedwell | |

PLANT SPECIES INVENTORY

Based on existing data, on-site surveys, and/or the availability of suitable habitat, the following species could occur in the Facility Site:

| | | | | | |
|-----|----------------|----------------------|---------------------|----------------------------|-----------------------|
| 2 | Plantaginaceae | <i>Veronica</i> | <i>persica</i> | birdeye speedwell | |
| 1 | Poaceae | <i>Agrostis</i> | <i>scabra</i> | northern tickle grass | |
| 1 | Poaceae | <i>Agrostis</i> | <i>stolonifera</i> | creeping bent | |
| 2 | Poaceae | <i>Agrostis</i> | <i>hyemalis</i> | southern hairgrass | |
| 2 | Poaceae | <i>Alopecurus</i> | <i>aequalis</i> | short-awn foxtail | |
| 2 | Poaceae | <i>Anthoxanthum</i> | <i>odoratum</i> | sweet vernal grass | |
| 1,2 | Poaceae | <i>Bromus</i> | <i>ciliatus</i> | fringed brome | |
| 2 | Poaceae | <i>Bromus</i> | <i>commutatus</i> | hairy chess | |
| 1 | Poaceae | <i>Bromus</i> | <i>inermis</i> | smooth brome | |
| 2 | Poaceae | <i>Calamagrostis</i> | <i>canadensis</i> | blue-joint reedgrass | |
| 2 | Poaceae | <i>Cinna</i> | <i>arundinacea</i> | stout wood reedgrass | |
| 2 | Poaceae | <i>Cinna</i> | <i>latifolia</i> | drooping woodreed | |
| 1,2 | Poaceae | <i>Dactylis</i> | <i>glomerata</i> | orchard grass | |
| 2 | Poaceae | <i>Dichanthelium</i> | <i>acuminatum</i> | hairy panic grass | |
| 1,2 | Poaceae | <i>Echinochloa</i> | <i>crusgalli</i> | barnyard grass | |
| 2 | Poaceae | <i>Echinochloa</i> | <i>muricata</i> | rough barnyard grass | |
| 2 | Poaceae | <i>Elymus</i> | <i>sp.</i> | wild rye | |
| 2 | Poaceae | <i>Elymus</i> | <i>hystrix</i> | bottlebrush grass | |
| 2 | Poaceae | <i>Elytrigia</i> | <i>repens</i> | quackgrass | |
| 2 | Poaceae | <i>Eragrostis</i> | <i>sp.</i> | love grass | |
| 2 | Poaceae | <i>Festuca</i> | <i>sp.</i> | fescue | |
| 1 | Poaceae | <i>Festuca</i> | <i>saximontana</i> | sheep fescue | |
| 2 | Poaceae | <i>Glyceria</i> | <i>striata</i> | fowl manna grass | |
| 2 | Poaceae | <i>Glyceria</i> | <i>sp.</i> | mannagrass | |
| 2 | Poaceae | <i>Glyceria</i> | <i>acutiflora</i> | creeping mannagrass | |
| 1,2 | Poaceae | <i>Glyceria</i> | <i>grandis</i> | reed meadowgrass | <i>var. hystrix</i> |
| 1,2 | Poaceae | <i>Leersia</i> | <i>oryzoides</i> | rice cutgrass | |
| 2 | Poaceae | <i>Lolium</i> | <i>arundinaceum</i> | tall fescue | |
| 1,2 | Poaceae | <i>Lolium</i> | <i>perenne</i> | perennial ryegrass | |
| 2 | Poaceae | <i>Muhlenbergia</i> | <i>mexicana</i> | mexican muhly | |
| 2 | Poaceae | <i>Muhlenbergia</i> | <i>frondosa</i> | muhly | |
| 2 | Poaceae | <i>Oryzopsis</i> | <i>canadensis</i> | Canada ricegrass | |
| 2 | Poaceae | <i>Oryzopsis</i> | <i>racemosa</i> | Mountain rice | |
| 1,2 | Poaceae | <i>Panicum</i> | <i>sp.</i> | panic grass | |
| 1,2 | Poaceae | <i>Panicum</i> | <i>capillare</i> | witchgrass | |
| 1,2 | Poaceae | <i>Panicum</i> | <i>clandestinum</i> | deer tongue | |
| 1 | Poaceae | <i>Phalaris</i> | <i>arundinaceae</i> | reed canary grass | |
| 1,2 | Poaceae | <i>Phalaris</i> | <i>arundinacea</i> | reed canary grass | |
| 1,2 | Poaceae | <i>Phleum</i> | <i>pratense</i> | timothy | |
| 1,2 | Poaceae | <i>Phragmites</i> | <i>australis</i> | Common reed | |
| 1 | Poaceae | <i>Poa</i> | <i>pratensis</i> | common Kentucky blue grass | <i>ssp. pratensis</i> |
| 1,2 | Poaceae | <i>Poa</i> | <i>compressa</i> | Canada bluegrass | |
| 2 | Poaceae | <i>Poa</i> | <i>sp.</i> | bluegrass | |
| 2 | Poaceae | <i>Poa</i> | <i>alsodes</i> | woodland bluegrass | |
| 1,2 | Poaceae | <i>Poa</i> | <i>pratensis</i> | Kentucky bluegrass | |

PLANT SPECIES INVENTORY

Based on existing data, on-site surveys, and/or the availability of suitable habitat, the following species could occur in the Facility Site:

| | | | | | |
|-----|------------------|--------------------|------------------------|----------------------|------------------|
| 2 | Poaceae | <i>Poa</i> | <i>palustris</i> | fowl meadowgrass | |
| 2 | Poaceae | <i>Poa</i> | <i>trivialis</i> | rough bluegrass | |
| | Poaceae | <i>Setaria</i> | <i>pumila</i> | yellow foxtail | |
| 1,2 | Poaceae | <i>Setaria</i> | <i>viridis</i> | green foxtail | |
| | Poaceae | <i>Setaria</i> | <i>faberii</i> | giant foxtail | |
| 2 | Poaceae | <i>Triticum</i> | <i>aestivum</i> | common wheat | |
| 2 | Poaceae | <i>Zea</i> | <i>mays</i> | corn | <i>ssp. mays</i> |
| 1,2 | Polygoneaceae | <i>Fagopyrum</i> | <i>esculentum</i> | buckwheat | |
| 2 | Polygoneaceae | <i>Polygonum</i> | <i>amphibium</i> | water smartweed | |
| 2 | Polygoneaceae | <i>Polygonum</i> | <i>aviculare</i> | common knotgrass | |
| 2 | Polygoneaceae | <i>Polygonum</i> | <i>convolvulus</i> | black bindweed | |
| 2 | Polygoneaceae | <i>Polygonum</i> | <i>hydropiperoides</i> | mild water-pepper | |
| 2 | Polygoneaceae | <i>Polygonum</i> | <i>pensylvanicum</i> | pink smartweed | |
| 1,2 | Polygoneaceae | <i>Polygonum</i> | <i>persicaria</i> | lady's thumb | |
| 2 | Polygoneaceae | <i>Polygonum</i> | <i>sp.</i> | smartweed | |
| 1,2 | Polygoneaceae | <i>Rumex</i> | <i>acetosella</i> | sheep sorrel | |
| 1,2 | Polygoneaceae | <i>Rumex</i> | <i>crispus</i> | curly dock | |
| 1,2 | Polygoneaceae | <i>Rumex</i> | <i>sp.</i> | dock | |
| 2 | Polygoneaceae | <i>Rumex</i> | <i>verticillatus</i> | swamp dock | |
| 2 | Pontederiaceae | <i>Pontederia</i> | <i>cordata</i> | pickerel weed | |
| 1,2 | Portulacaceae | <i>Portulaca</i> | <i>oleracea</i> | common purslane | |
| 2 | Potamogetonaceae | <i>Coleogeton</i> | <i>pectinatum</i> | sago pondweed | |
| 2 | Potamogetonaceae | <i>Potamogeton</i> | <i>crispus</i> | curly pondweed | |
| 2 | Potamogetonaceae | <i>Potamogeton</i> | <i>sp.</i> | pondweed | |
| 2 | Pteridaceae | <i>Adiantum</i> | <i>pedatum</i> | maidenhair fern | |
| 1 | Ranunculaceae | <i>Anemone</i> | <i>canadensis</i> | Canada anemone | |
| 2 | Ranunculaceae | <i>Anemone</i> | <i>virginiana</i> | tall anemone | |
| 2 | Ranunculaceae | <i>Aquilegia</i> | <i>canadensis</i> | wild columbine | |
| 2 | Ranunculaceae | <i>Aquilegia</i> | <i>vulgaris</i> | golden columbine | |
| 2 | Ranunculaceae | <i>Coptis</i> | <i>trifolia</i> | goldthread | |
| 2 | Ranunculaceae | <i>Ranunculus</i> | <i>trichophyllus</i> | white water crowfoot | |
| 1,2 | Ranunculaceae | <i>Ranunculus</i> | <i>acris</i> | tall buttercup | |
| 2 | Ranunculaceae | <i>Ranunculus</i> | <i>sp.</i> | buttercup | |
| 1 | Rosaceae | <i>Fragaria</i> | <i>virginiana</i> | wild strawberry | |
| 1 | Rosaceae | <i>Amelanchier</i> | <i>stolonifera</i> | bush juneberry | |
| 1 | Rosaceae | <i>Amelanchier</i> | <i>arborea</i> | downy shadbush | |
| 1,2 | Rosaceae | <i>Dalibarda</i> | <i>repens</i> | dewdrop | |
| | Rosaceae | <i>Crataegus</i> | <i>sp.</i> | hawthorn | |
| 1,2 | Rosaceae | <i>Fragaria</i> | <i>virginiana</i> | wild strawberry | |
| 1 | Rosaceae | <i>Fragaria</i> | <i>vesca</i> | wood strawberry | |
| 2 | Rosaceae | <i>Geum</i> | <i>fragarioides</i> | barren strawberry | |
| 2 | Rosaceae | <i>Malus</i> | <i>pumila</i> | apple | |
| 1,2 | Rosaceae | <i>Physocarpus</i> | <i>opulifolius</i> | nine bark | |
| 2 | Rosaceae | <i>Potentilla</i> | <i>sp.</i> | cinquefoil | |
| 1,2 | Rosaceae | <i>Potentilla</i> | <i>recta</i> | sulfur cinquefoil | |

PLANT SPECIES INVENTORY

Based on existing data, on-site surveys, and/or the availability of suitable habitat, the following species could occur in the Facility Site:

| | | | | | |
|-----|------------------|-----------------------|----------------------|----------------------------|-----------------------|
| 1 | Rosaceae | <i>Potentilla</i> | <i>simplex</i> | old field cinquefoil | |
| 1,2 | Rosaceae | <i>Potentilla</i> | <i>anserina</i> | silver weed | <i>ssp. anserina</i> |
| 1,2 | Rosaceae | <i>Prunus</i> | <i>serotina</i> | wild black cherry | <i>var. serotina</i> |
| 2 | Rosaceae | <i>Prunus</i> | <i>virginiana</i> | choke cherry | |
| 2 | Rosaceae | <i>Rosa</i> | <i>rubiginosa</i> | sweet-briar rose | |
| 1,2 | Rosaceae | <i>Rosa</i> | <i>rugosa</i> | rugosa rose | |
| 1,2 | Rosaceae | <i>Rubus</i> | <i>allegheensis</i> | blackberry | |
| 2 | Rosaceae | <i>Rubus</i> | <i>idaeus</i> | red raspberry | |
| 2 | Rosaceae | <i>Rubus</i> | <i>occidentalis</i> | black raspberry | |
| 1,2 | Rosaceae | <i>Rubus</i> | <i>odoratus</i> | purple-flowering raspberry | |
| 2 | Rosaceae | <i>Rubus</i> | <i>pubescens</i> | dwarf raspberry | |
| 2 | Rosaceae | <i>Sanguisorba</i> | <i>canadensis</i> | american burnet | |
| 2 | Rosaceae | <i>Spiraea</i> | <i>tomentosa</i> | steeplebush | |
| 2 | Rosaceae | <i>Spiraea</i> | <i>alba</i> | meadowsweet | <i>var. latifolia</i> |
| 1 | Rubiaceae | <i>Galium</i> | <i>palustre</i> | marsh bed-straw | |
| 1 | Rubiaceae | <i>Cephalanthus</i> | <i>occidentalis</i> | buttonbush | |
| 1 | Rubiaceae | <i>Galium</i> | <i>mollugo</i> | wild madder | |
| 2 | Rubiaceae | <i>Galium</i> | <i>asprellum</i> | rough bedstraw | |
| 1,2 | Rubiaceae | <i>Galium</i> | <i>mollugo</i> | white bedstraw | |
| 2 | Rutaceae | <i>Zanthoxylum</i> | <i>americanum</i> | prickly ash | |
| 1 | Salicaceae | <i>Populus</i> | <i>deltoides</i> | eastern cottonwood | |
| 2 | Salicaceae | <i>Populus</i> | <i>balsamifera</i> | balsom poplar | |
| 2 | Salicaceae | <i>Populus</i> | <i>grandidentata</i> | big-toothed aspen | |
| 2 | Salicaceae | <i>Populus</i> | <i>tremuloides</i> | quaking aspen | |
| 2 | Salicaceae | <i>Salix</i> | <i>nigra</i> | black willow | |
| 1,2 | Salicaceae | <i>Salix</i> | <i>fagilis</i> | crack willow | |
| 2 | Saxifragaceae | <i>Saxifraga</i> | <i>virginiensis</i> | virginia saxifrage | |
| 1,2 | Scrophulariaceae | <i>Verbascum</i> | <i>thapsus</i> | mullein | |
| 1,2 | Solanaceae | <i>Physalis</i> | <i>heterophylla</i> | clammy ground cherry | |
| 1,2 | Solanaceae | <i>Solanum</i> | <i>dulcamara</i> | black nightshade | |
| 2 | Thelypteridaceae | <i>Thelypteris</i> | <i>palustris</i> | marsh fern | |
| 1,2 | Typhaceae | <i>Sparganium</i> | <i>eurycarpum</i> | giant bur-reed | |
| 1,2 | Typhaceae | <i>Typha</i> | <i>angustifolia</i> | narrowleaf cattail | |
| 1,2 | Typhaceae | <i>Typha</i> | <i>latifolia</i> | broadleaf cattail | |
| 2 | Typhaceae | <i>Sparganium</i> | <i>eurycarpum</i> | burreed | |
| 2 | Ulmaceae | <i>Ulmus</i> | <i>americana</i> | American elm | |
| 1 | Urticaceae | <i>Urtica</i> | <i>dioica</i> | European stinging nettle | <i>ssp. dioica</i> |
| 1 | Urticaceae | <i>Boehmeria</i> | <i>cylindrica</i> | false nettle | |
| 1,2 | Urticaceae | <i>Urtica</i> | <i>doica</i> | European stinging nettle | |
| 2 | Urticaceae | <i>Urtica</i> | <i>sp.</i> | nettle | |
| 1,2 | Verbenaceae | <i>Verbena</i> | <i>hastata</i> | blue vervain | |
| 2 | Violaceae | <i>Viola</i> | <i>cucullata</i> | bluemarsh violet | |
| 2 | Violaceae | <i>Viola</i> | <i>sp.</i> | violet | |
| 2 | Vitaceae | <i>Parthenocissus</i> | <i>quinquefolia</i> | Vigina creeper | |
| 1,2 | Vitaceae | <i>Vitis</i> | <i>labrusca</i> | fox grape | |

PLANT SPECIES INVENTORY

Based on existing data, on-site surveys, and/or the availability of suitable habitat, the following species could occur in the Facility Site:

| | | | | |
|-----|----------|--------------|----------------|-----------------|
| 1,2 | Vitaceae | <i>Vitis</i> | <i>riparia</i> | riverbank grape |
|-----|----------|--------------|----------------|-----------------|

¹ *Species identified during on-site ecological surveys conducted by EDR in 2016.*

² *Species identified during on-site wildlife surveys conducted by TES in 2007-2008.*

WILDLIFE SPECIES INVENTORY

Based on existing data, on-site surveys, and/or the availability of suitable habitat, the following species could occur in the Facility Site at some time during the year:

| | <u>Common Name</u> | <u>Scientific Name</u> | <u>Conservation Status*</u> |
|---------------------|------------------------------------|-----------------------------------|-----------------------------|
| Bird Species | | | |
| | <u>Loons</u> | <u>Gaviidae</u> | |
| 2,11 | common loon | <i>Gavia immer</i> | SGCN, SSC |
| | <u>Grebes</u> | <u>Pedicipedidae</u> | |
| 5,6 | pie-billed grebe | <i>Podilymbus podiceps</i> | SGCN, State Threatened |
| | <u>Hérons, Bitterns and Egrets</u> | <u>Ardeidae</u> | |
| 2 | great blue heron | <i>Ardea herodias</i> | NYS Protected |
| 2,6,9 | American bittern | <i>Botaurus lentiginosus</i> | SGCN, SSC |
| 5 | cattle egret | <i>Bubulcus ibis</i> | SGCN, NYS Protected |
| 2 | green heron | <i>Butorides virescens</i> | |
| 6 | least bittern | <i>Ixobrychus exilis</i> | SGCN |
| 2,7 | black-crowned night heron | <i>Nycticorax nycticorax</i> | |
| | <u>Rails and Soras</u> | <u>Rallidae</u> | |
| 2 | yellow rail | <i>Coturnicops noveboracensis</i> | |
| 2 | sora | <i>Porzana carolina</i> | |
| 2 | Virginia rail | <i>Rallus limicola</i> | |
| | <u>Waterfowl</u> | <u>Anatidae</u> | |
| 2,9 | wood duck | <i>Aix sponsa</i> | |
| 2 | northern pintail | <i>Anas acuta</i> | SGCN |
| 1,2,7 | mallard | <i>Anas platyrhynchos</i> | |
| 2 | American black duck | <i>Anas rubripes</i> | SGCN - HP |
| 2 | gadwall | <i>Anas strepera</i> | |
| 2 | lesser scaup | <i>Aythya affinis</i> | SGCN |
| 1,2,7,9 | Canada goose | <i>Branta canadensis</i> | |
| 2 | bufflehead | <i>Bucephala albeola</i> | |
| 1,11 | mute swan | <i>Cygnus olor</i> | |
| 1,2,7,9 | common merganser | <i>Mergus merganser</i> | |
| 1,2,7 | double-crested cormorant | <i>Phalacrocorax auritus</i> | |
| | <u>American Vultures</u> | <u>Cathartidae</u> | |
| 1,2,7 | turkey vulture | <i>Cathartes aura</i> | |
| | <u>Falcons</u> | <u>Falconidae</u> | |
| 2 | merlin | <i>Falco columbarius</i> | |
| 2 | peregrine falcon | <i>Falco peregrinus</i> | SGCN, State Endangered |
| 2 | American kestrel | <i>Falco sparverius</i> | SGCN |
| | <u>Hawks</u> | <u>Accipitridae</u> | |
| 9 | Cooper's hawk | <i>Accipiter cooperii</i> | SSC |
| 2 | sharp-shinned hawk | <i>Accipiter striatus</i> | SSC |
| 1,2,9 | red-tailed hawk | <i>Buteo jamaicensis</i> | |
| 2 | rough-legged hawk | <i>Buteo lagopus</i> | |
| 2,5,7 | northern harrier | <i>Circus cyaneus</i> | SGCN, State Threatened |

WILDLIFE SPECIES INVENTORY

Based on existing data, on-site surveys, and/or the availability of suitable habitat, the following species could occur in the Facility Site at some time during the year:

| | <u>Common Name</u> | <u>Scientific Name</u> | <u>Conservation Status*</u> |
|------------|---------------------------|----------------------------------|-----------------------------|
| 1, 2, 11 | bald eagle | <i>Haliaeetus leucocephalus</i> | SGCN, State Threatened |
| | <u>Pheasants</u> | <u>Phasianidae</u> | |
| 2 | ring-necked pheasant | <i>Phasianus colchicus</i> | |
| | <u>Turkeys</u> | <u>Meleagrididae</u> | |
| 1, 2, 9 | wild turkey | <i>Meleagris gallopavo</i> | |
| | <u>Plovers</u> | <u>Charadriidae</u> | |
| 1, 2, 7 | killdeer | <i>Charadrius vociferus</i> | |
| 2, 10 | semipalmated plover | <i>Charadrius semipalmatus</i> | |
| | <u>Sandpipers</u> | <u>Scolopacidae</u> | |
| 2, 7, 9 | spotted sandpiper | <i>Actitis macularia</i> | |
| 2, 10 | ruddy turnstone | <i>Arenaria interpres</i> | SGCN |
| 2, 3, 5, 9 | upland sandpiper | <i>Bartramia longicauda</i> | SGCN - HP, State Threatened |
| 2 | sanderling | <i>Calidris alba</i> | |
| 10 | dunlin | <i>Calidris alpina</i> | |
| 2 | semipalmated sandpiper | <i>Calidris pusilla</i> | SGCN - HP |
| 2, 10 | least sandpiper | <i>Calidris minutilla</i> | |
| 2 | stilt sandpiper | <i>Calidris himantopus</i> | |
| 2 | Wilson's snipe | <i>Gallinago delicata</i> | |
| 1, 2, 9 | American woodcock | <i>Philohela minor</i> | SGCN |
| 9 | common snipe | <i>Gallinago gallinago</i> | |
| 2 | solitary sandpiper | <i>Tringa solitaria</i> | |
| | <u>Gulls, Terns</u> | <u>Laridae</u> | |
| 5, 6 | black tern | <i>Chlidonias niger</i> | SGCN - HP |
| 2, 5 | Caspian tern | <i>Hydroprogne caspia</i> | SGCN, NYS Protected |
| 2 | herring gull | <i>Larus argentatus</i> | |
| 1, 2, 7 | ring-billed gull | <i>Larus delawarensis</i> | |
| 2 | great black-backed gull | <i>Larus marinus</i> | |
| 5, 6 | common tern | <i>Sterna hirundo</i> | SGCN, State Threatened |
| | <u>Pigeons, Doves</u> | <u>Columbidae</u> | |
| 2, 9 | rock pigeon | <i>Columba livia</i> | |
| 2, 9 | mourning dove | <i>Zenaida macroura</i> | |
| | <u>Cuckoos</u> | <u>Cuculidae</u> | |
| 2, 6 | black-billed cuckoo | <i>Coccyzus erythrophthalmus</i> | SGCN |
| | <u>Typical Owls</u> | <u>Strigidae</u> | |
| 2, 5, 6 | short-eared owl | <i>Asio flammeus</i> | SGCN - HP, State Endangered |
| 2, 9 | great horned owl | <i>Bubo virginianus</i> | |
| | <u>Hummingbirds</u> | <u>Trochilidae</u> | |
| 2 | ruby-throated hummingbird | <i>Archilochus colubris</i> | |

WILDLIFE SPECIES INVENTORY

Based on existing data, on-site surveys, and/or the availability of suitable habitat, the following species could occur in the Facility Site at some time during the year:

| | <u>Common Name</u> | <u>Scientific Name</u> | <u>Conservation Status*</u> |
|------------|------------------------------------|-----------------------------------|-----------------------------|
| | <u>Kingfishers</u> | <u>Alcedinidae</u> | |
| 2 | belted kingfisher | <i>Ceryle alcyon</i> | |
| | <u>Woodpeckers</u> | <u>Picidae</u> | |
| 2, 9 | northern flicker | <i>Colaptes auratus</i> | |
| 2, 9 | pileated woodpecker | <i>Dryocopus pileatus</i> | |
| 2, 6, 9 | red-headed woodpecker | <i>Melanerpes erythrocephalus</i> | SGCN - HP, SSC |
| 2, 9 | downy woodpecker | <i>Picoides pubescens</i> | |
| 2, 9 | hairy woodpecker | <i>Picoides villosus</i> | |
| | <u>Flycatchers</u> | <u>Tyrannidae</u> | |
| 2, 9 | eastern wood-pewee | <i>Contopus virens</i> | |
| 2, 9 | least flycatcher | <i>Epidonax minimus</i> | |
| 9 | willow flycatcher | <i>Epidonax traillii</i> | |
| 2, 9 | great crested flycatcher | <i>Myiarchus crinitus</i> | |
| 6 | olive-sided flycatcher | <i>Nuttallornis borealis</i> | SGCN - HP |
| 2, 9 | eastern phoebe | <i>Sayornis phoebe</i> | |
| 2, 7, 9 | eastern kingbird | <i>Tyrannus tyrannus</i> | |
| | <u>Swallows</u> | <u>Hirundinidae</u> | |
| 2, 7 | cliff swallow | <i>Hirundo pyrrhonotta</i> | |
| 1, 2, 7, 9 | barn swallow | <i>Hirundo rustica</i> | |
| 2, 11 | purple martin | <i>Progne subis</i> | |
| 9 | bank swallow | <i>Riparia riparia</i> | |
| 2, 9 | northern rough-winged swallow | <i>Stelgidopteryx serripennis</i> | |
| 2, 7, 9 | tree swallow | <i>Tachycineta bicolor</i> | |
| | <u>Swifts</u> | <u>Apodidae</u> | |
| 10 | chimney swift | <i>Chaetura pelagica</i> | |
| | <u>Shrikes</u> | <u>Laniidae</u> | |
| 2 | northern shrike | <i>Lanius excubitor</i> | |
| | <u>Jays, Crows</u> | <u>Corvidae</u> | |
| 1, 2, 9 | common raven | <i>Corvus corax</i> | |
| 1, 2, 9 | blue jay | <i>Cyanocitta cristata</i> | |
| | <u>Titmice</u> | <u>Paridae</u> | |
| 1, 2, 9 | black-capped chickadee | <i>Parus atricapillus</i> | |
| | <u>Nuthatches</u> | <u>Sittidae</u> | |
| | green frog white-breasted nuthatch | <i>Sitta carolinensis</i> | |
| | <u>Creepers</u> | <u>Certhiidae</u> | |
| 2, 9 | brown creeper | <i>Certhia americana</i> | |

WILDLIFE SPECIES INVENTORY

Based on existing data, on-site surveys, and/or the availability of suitable habitat, the following species could occur in the Facility Site at some time during the year:

| | <u>Common Name</u> | <u>Scientific Name</u> | <u>Conservation Status*</u> |
|------------|------------------------------|--------------------------------|-----------------------------|
| | <u>Wrens</u> | <u>Troglodytidae</u> | |
| 2 | marsh wren | <i>Cistothorus palustris</i> | |
| 5 | sedge wren | <i>Cistothorus platensis</i> | SGCN - HP, State Threatened |
| 2, 9 | house wren | <i>Troglodytes aedon</i> | |
| 2, 9 | winter wren | <i>Troglodytes troglodytes</i> | |
| | <u>Pipits</u> | <u>Motacillidae</u> | |
| 2 | American pipit | <i>Anthus rubescens</i> | |
| | <u>Mimic Thrushes</u> | <u>Mimidae</u> | |
| 2, 9 | gray catbird | <i>Dumetella carolinensis</i> | |
| 2, 9 | brown thrasher | <i>Toxostoma rufum</i> | SGCN - HP |
| | <u>Thrushes</u> | <u>Turdidae</u> | |
| 10 | grey-cheeked thrush | <i>Catharus minimus</i> | |
| 2, 6, 9 | wood thrush | <i>Hylocichla mustelina</i> | SGCN |
| 1, 2, 9 | American robin | <i>Turdus migratorius</i> | |
| | <u>Kinglets</u> | <u>Turdidae</u> | |
| 2 | ruby-crowned kinglet | <i>Regulus calendula</i> | |
| 2 | golden-crowned kinglet | <i>Regulus satrapa</i> | |
| | <u>Waxwings</u> | <u>Bombycillidae</u> | |
| 1, 2, 9 | cedar waxwing | <i>Bombycilla cedrorum</i> | |
| | <u>Starlings</u> | <u>Sturnidae</u> | |
| 1, 2, 7, 9 | European starling | <i>Sturnus vulgaris</i> | |
| | <u>Vireos</u> | <u>Vireonidae</u> | |
| 2, 9 | warbling vireo | <i>Vireo gilvus</i> | |
| 2, 9 | red-eyed vireo | <i>Vireo olivaceus</i> | |
| | <u>Wood Warblers</u> | <u>Parulidae</u> | |
| 2 | bay-breasted warbler | <i>Dendroica castanea</i> | SGCN - HP |
| 2 | cerulean warbler | <i>Dendroica cerulea</i> | SGCN, SSC |
| 2 | yellow-rumped warbler | <i>Dendroica coronata</i> | |
| 2 | magnolia warbler | <i>Dendroica magnolia</i> | |
| 2 | chestnut-sided warbler | <i>Dendroica pensylvanica</i> | |
| 2, 9 | yellow warbler | <i>Dendroica petechia</i> | |
| 2, 10 | black-throated green warbler | <i>Dendroica virens</i> | |
| 10 | mourning warbler | <i>Geothlypis philadelphia</i> | |
| 2, 9 | common yellowthroat | <i>Geothlypis trichas</i> | |
| 2 | black and white warbler | <i>Mniotilta varia</i> | |
| 2, 10 | northern parula | <i>Parula americana</i> | |
| 2, 10 | northern waterthrush | <i>Parkesia noveboracensis</i> | |
| 10 | black-throated blue warbler | <i>Setophaga caerulescens</i> | SGCN |
| 2, 9 | American redstart | <i>Setophaga ruticila</i> | |

WILDLIFE SPECIES INVENTORY

Based on existing data, on-site surveys, and/or the availability of suitable habitat, the following species could occur in the Facility Site at some time during the year:

| | <u>Common Name</u> | <u>Scientific Name</u> | <u>Conservation Status*</u> |
|---------|---------------------------|----------------------------------|-----------------------------|
| 10 | blackpoll warbler | <i>Setophaga virens</i> | |
| 6 | golden-winged warbler | <i>Vermivora chrysoptera</i> | SGCN - HP, SSC |
| 2 | Tennessee warbler | <i>Vermivora peregrina</i> | SGCN |
| 6 | blue-winged warbler | <i>Vermivora pinus</i> | |
| 2 | Nashville warbler | <i>Vermivora ruficapilla</i> | |
| 2, 6 | Canada warbler | <i>Wilsonia canadensis</i> | SGCN - HP |
| | | | |
| | <u>Old World Sparrows</u> | <u>Ploceidae</u> | |
| 1, 2, 7 | house sparrow | <i>Passer domesticus</i> | |
| | | | |
| | <u>Blackbirds</u> | <u>Icteridae</u> | |
| 2, 7, 9 | red-winged blackbird | <i>Agelaius phoeniceus</i> | |
| 2, 7, 9 | bobolink | <i>Dolichonyx oryzivorus</i> | SGCN - HP |
| 2, 9 | Baltimore oriole | <i>Icterus galbula</i> | |
| 9 | orchard oriole | <i>Icterus spurius</i> | |
| 2, 9 | brown-headed cowbird | <i>Molothrus ater</i> | |
| 1, 2, 9 | common grackle | <i>Quiscalus quiscula</i> | |
| 2, 7, 9 | eastern meadowlark | <i>Sturnella magna</i> | SGCN - HP |
| | | | |
| | <u>Cardinals</u> | <u>Cardinalidae</u> | |
| 9 | northern cardinal | <i>Cardinalis cardinalis</i> | |
| 9 | indigo bunting | <i>Passerina cyanea</i> | |
| 2, 9 | rose-breasted grosbeak | <i>Pheucticus ludovicianus</i> | |
| 2, 9 | scarlet tanager | <i>Piranga olivacea</i> | SGCN |
| | | | |
| | <u>Sparrows</u> | <u>Emberizidae</u> | |
| 10 | Nelson's sparrow | <i>Ammodramus nelsoni</i> | |
| 9 | grasshopper sparrow | <i>Ammodramus savannarum</i> | SGCN - HP, SSC |
| 2 | dark-eyed Junco | <i>Junco hyemalis</i> | |
| 2, 7 | song sparrow | <i>Melospiza melodia</i> | |
| 2, 7, 9 | savannah sparrow | <i>Passerculus sandwichensis</i> | |
| 7, 9 | clay-colored sparrow | <i>Spizella pallida</i> | |
| 2, 9 | chipping sparrow | <i>Spizella passerina</i> | |
| 2, 9 | field sparrow | <i>Spizella pusilla</i> | |
| 2 | white-throated sparrow | <i>Zonotrichia albicollis</i> | |
| 2 | white-crowned sparrow | <i>Zonotrichia leucophrys</i> | |
| | | | |
| | <u>True Finches</u> | <u>Fringillidae</u> | |
| 2, 9 | American goldfinch | <i>Carduelis tristis</i> | |
| 9 | purple finch | <i>Haemorhous purpureus</i> | |
| 2 | pine grosbeak | <i>Pinicola enucleator</i> | |
| 2, 9 | eastern towhee | <i>Pipilo erythrophthalmus</i> | |
| | | | |
| | <u>Gnatcatchers</u> | <u>Poliopitidae</u> | |
| 10 | blue-grey gnatcatcher | <i>Poliopitila caerulea</i> | |

Mammal Species

| <u>Plainnose Bats</u> | <u>Vespertilionidae</u> |
|-----------------------|-------------------------|
|-----------------------|-------------------------|

WILDLIFE SPECIES INVENTORY

Based on existing data, on-site surveys, and/or the availability of suitable habitat, the following species could occur in the Facility Site at some time during the year:

| | <u>Common Name</u> | <u>Scientific Name</u> | <u>Conservation Status*</u> |
|--------------------------------------|------------------------------------|----------------------------------|-------------------------------------|
| 4 | eastern small-footed myotis | <i>Myotis leibii</i> | SSC, SGCN |
| 4, 6, 12 | northern long-eared bat | <i>Myotis septentrionalis</i> | SGCN - HP, State and Fed Threatened |
| 4, 6, 12 | Indiana bat | <i>Myotis sodalis</i> | SGCN - HP, State and Fed Endangered |
| 12 | eastern red bat | <i>Lasiurus borealis</i> | SGCN |
| 12 | little brown myotis | <i>Myotis lucifugus</i> | SGCN - HP |
| 12 | big brown bat | <i>Eptesicus fuscus</i> | |
| 12 | silver-haired bat | <i>Lasionycteris noctivagans</i> | SGCN |
| 12 | hoary bat | <i>Lasiurus cinereus</i> | SGCN |
| | | | |
| | <u>Racoons</u> | <u>Procyonidae</u> | |
| 2 | raccoon | <i>Procyon lotor</i> | |
| | | | |
| | <u>Dogs, Wolves, Foxes</u> | <u>Canidae</u> | |
| 2 | coyote | <i>Canis latrans</i> | |
| | | | |
| | <u>Squirrels</u> | <u>Sciuridae</u> | |
| 2 | eastern gray squirrel | <i>Sciurus carolinensis</i> | |
| 2 | red squirrel | <i>Tamiasciurus hudsonicus</i> | |
| | | | |
| | <u>Chipmunk</u> | | |
| 2 | eastern chipmunk | <i>Tamias striatus</i> | |
| | | | |
| | <u>Beaver</u> | <u>Castoridae</u> | |
| 2 | beaver | <i>Castor canadensis</i> | |
| | | | |
| | <u>Mice, Rats, Lemmings, Voles</u> | <u>Cricetidae</u> | |
| 2 | meadow vole | <i>Microtus pennsylvanicus</i> | |
| 2 | muskkrat | <i>Ondatra zibethicus</i> | |
| 2 | deer mouse | <i>Peromyscus maniculatus</i> | |
| | | | |
| | <u>Hares, Rabbits</u> | <u>Leporidae</u> | |
| 1 | eastern cottontail | <i>Sylvilagus floridanus</i> | |
| | | | |
| | <u>Deer</u> | <u>Cervidae</u> | |
| 1, 2 | whitetail deer | <i>Odocoileus virginianus</i> | |
| | | | |
| Reptile and Amphibian Species | | | |
| | <u>Snapping Turtles</u> | <u>Chelydridae</u> | |
| 2 | common snapping turtle | <i>Chelydra serpentina</i> | |
| | | | |
| | <u>Box and Water Turtles</u> | <u>Emydidae</u> | |
| 2 | paint turtle | <i>Chrysemys picta</i> | |
| 2 | northern map turtle | <i>Graptemys geographica</i> | SGCN |
| | | | |
| | <u>Colubrids</u> | <u>Colubridae</u> | |
| 1, 2 | northern water snake | <i>Natrix sipedon</i> | |
| 2 | common garter snake | <i>Thamnophis sirtalis</i> | |

WILDLIFE SPECIES INVENTORY

Based on existing data, on-site surveys, and/or the availability of suitable habitat, the following species could occur in the Facility Site at some time during the year:

| | <u>Common Name</u> | <u>Scientific Name</u> | <u>Conservation Status*</u> |
|---------------------|-------------------------------|--------------------------------|-----------------------------|
| | <u>Lungless Salamanders</u> | <u>Plethodontidae</u> | |
| 2 | eastern red-backed salamander | <i>Plethodon cinereus</i> | |
| | <u>Toads</u> | <u>Bufo</u> | |
| 2 | American toad | <i>Bufo americanus</i> | |
| | <u>True Frogs</u> | <u>Ranidae</u> | |
| 2 | bullfrog | <i>Rana catesbeiana</i> | |
| 2 | green frog | <i>Rana clamitans</i> | |
| 2 | pickerel frog | <i>Rana palustris</i> | |
| 1,2 | northern leopard frog | <i>Rana pipiens</i> | |
| Fish Species | | | |
| | <u>Bullhead/Catfishes</u> | <u>Ictaluridae</u> | |
| 8 | brown bullhead | <i>Ameiurus nebulosus</i> | |
| | <u>Carp and Minnows</u> | <u>Cyprinidae</u> | |
| 8 | carp | <i>Cyprinus carpio</i> | |
| 8 | emerald shiner | <i>Notropis atherinoides</i> | |
| 8 | golden shiner | <i>Notemigonus crysoleucas</i> | |
| 8 | spottail shiner | <i>Notropis hudsonicus</i> | |
| 8 | bluntnose minnow | <i>Pimephales notatus</i> | |
| 8 | fathead minnow | <i>Pimephales promelas</i> | |
| 8 | common shiner | <i>Luxilus cornutus</i> | |
| | <u>Drum</u> | <u>Sciaenidae</u> | |
| 8 | freshwater drum | <i>Aplodinotus grunniens</i> | |
| | <u>Freshwater Eels</u> | <u>Anguilla</u> | |
| | American eel | <i>Anguilla rostrata</i> | |
| | <u>Goby</u> | <u>Gobiidae</u> | |
| 8 | round goby | <i>Neogobius melanostomus</i> | |
| | <u>Herring</u> | <u>Alosa</u> | |
| 8 | alewife | <i>Alosa pseudoharengus</i> | |
| | <u>Northern Lampreys</u> | <u>Petromyzontidae</u> | |
| 8 | silver lamprey | <i>Ichthyomyzon unicuspis</i> | |
| | <u>Pikes</u> | <u>Esocidae</u> | |
| 8 | northern pike | <i>Esox lucis</i> | |
| | <u>Perches</u> | <u>Percidae</u> | |
| 8 | yellow perch | <i>Perca flavescens</i> | |
| 8 | walleye | <i>Sander vitreus</i> | |
| | <u>Sturgeon</u> | <u>Acipenseridae</u> | |

WILDLIFE SPECIES INVENTORY

Based on existing data, on-site surveys, and/or the availability of suitable habitat, the following species could occur in the Facility Site at some time during the year:

| | <u>Common Name</u> | <u>Scientific Name</u> | <u>Conservation Status*</u> |
|---|--------------------|---------------------------------|-----------------------------|
| 8 | lake sturgeon | <i>Acipenser fluvescens</i> | State Threatened, SGCN |
| | <u>Suckers</u> | <u>Catostomidae</u> | |
| 8 | longnose sucker | <i>Catostomus catostomus</i> | SGCN |
| 8 | white sucker | <i>Catostomus commersoni</i> | |
| 8 | silver redhorse | <i>Moxostoma anisurum</i> | |
| 8 | shorthead redhorse | <i>Moxostoma macrolepidotum</i> | |
| 8 | greater redhorse | <i>Moxostoma valenciennesi</i> | |
| | <u>Sunfishes</u> | <u>Centrarchidae</u> | |
| 8 | rock bass | <i>Ambloplites rupestris</i> | |
| 8 | pumpkinseed | <i>Lepomis gibbosus</i> | |
| 8 | bluegill | <i>Lepomis macrochirus</i> | |
| 8 | black crappie | <i>Poxomis nigromaculatus</i> | |
| 8 | smallmouth bass | <i>Micropterus dolomieu</i> | |
| 8 | largemouth bass | <i>Micropterus salmoides</i> | |
| | <u>Trout</u> | <u>Salmonidae</u> | |
| 8 | chinook salmon | <i>Oncorhynchus tshawytscha</i> | |
| 8 | lake trout | <i>Salvelinus namaycush</i> | SGCN |

1 *Species identified during on-site ecological surveys conducted by EDR in 2016.*
 2 *Species identified during on-site wildlife surveys conducted by TES in 2007-2008.*
 3 *Species identified by NYNHP as occurring on Galloo Island in a letter dated April 6, 2016.*
 4 *Bat species identified by NYNHP as occurring within 40 miles of Galloo Island in a letter dated April 6, 2016.*
 5 *Bird species identified by NYNHP as occurring within 10 miles of Galloo Island in a letter dated April 6, 2016.*
 6 *Species identified by USFWS online database (IPaC) as occurring in the vicinity of the Project Site.*
 7 *Species identified in the NYS Breeding Bird Atlas (Survey Blocks 3786D and 3886C 2000-2005).*
 8 *Species identified by NYSDEC Fish Atlas, post 1976. Locations of species are generalized and data does not represent an official survey.*
 9 *Species identified in the 2015 Breeding Bird Survey on Galloo Island conducted by Old Bird, Inc.*
 10 *Late spring migrants identified during the 2015 Breeding Bird Survey on Galloo Island conducted by Old Bird, Inc.*
 11 *Non-breeding species identified in the 2015 Breeding Bird Survey on Galloo Island conducted by Old Bird, Inc.*
 12 *Bat species identified in the 2015 Bat Survey of Galloo Island conducted by NEES.*
 * *Species of Greatest Conservation Need (SGCN) and Species of Greatest Conservation Need High Priority (SGCN - HP) identified by NYSDEC as part of the Comprehensive*



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March 15, 2016

Ms. Andrea Chaloux
Environmental Review Specialist
New York Natural Heritage Program
Submitted via email: NaturalHeritage@dec.ny.gov

**RE: Galloo Island Wind
EDR Project No. 16015**

Dear Ms. Chaloux:

Environmental Design and Research, Landscape Architecture, Engineering & Environmental Services, D.P.C. (EDR) is compiling ecological information as part of an environmental review for a proposed wind power project on Galloo Island in the Town of Hounsfield in Jefferson County, New York. Please accept this request for any information you may have concerning documented endangered and threatened wildlife, significant habitats, and/or rare plant species in this area. I have enclosed a map of the project site, which is located within the Galloo Island USGS 7.5-Minute quadrangle.

If you have any questions regarding this data request or require additional project information, please do not hesitate to contact me at 315-471-0688, or jrunner@edrdpc.com. Thank you in advance for your attention to this request. I look forward to receiving your input on this project.

Sincerely,

A handwritten signature in black ink, appearing to read 'Jacob Runner', written over a light blue horizontal line.

Jacob Runner
Environmental Analyst



Galloo Island Wind

Town of Hounsfield, Jefferson County

Project Area Map

March 2016

Notes: 1958 USGS Galloo Island 1:24000 topographic quadrangle.

2. This is a color graphic. Reproduction in grayscale may misrepresent the data.

 Project Site



www.edrdpc.com

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Division of Fish, Wildlife & Marine Resources
New York Natural Heritage Program
625 Broadway, 5th Floor, Albany, New York 12233-4757
Phone: (518) 402-8935 • **Fax:** (518) 402-8925
Website: www.dec.ny.gov



April 6, 2016

Jacob Runner
Environmental Design & Research
217 Montgomery Street, Suite 1000
Syracuse, NY 13202

Dear Mr. Runner:

In response to your recent request, we have reviewed the New York Natural Heritage Program database with respect to the proposed Galloo Island Wind Project (EDR No. 16015), located in the Town of Hounsfield, Jefferson County, New York.

Enclosed is a report of rare or state-listed animals and plants, and significant natural communities, which our databases indicate occur within the Project Area. For further guidance regarding the state-listed animals listed in the report, please contact the NYS DEC Region 6 Office, Division of Environmental Permits, as listed at www.dec.ny.gov/about/39381.html.

Also enclosed is a report of rare birds documented within 10 miles of the project site, and rare bats documented within 40 miles of the project site, for use in assessing potential impacts of bird and bat collisions. For information on NYSDEC's environmental review of proposed wind energy projects, and for the document *Guidelines for Conducting Bird and Bat Studies at Commercial Wind Energy Projects*, please go to www.dec.ny.gov/energy/66494.html.

For most sites, comprehensive field surveys have not been conducted; the enclosed report only includes records from our databases. We cannot provide a definitive statement as to the presence or absence of all rare or state-listed species or significant natural communities. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other resources may be required to fully assess impacts on biological resources.

Our databases are continually growing as records are added and updated. If this proposed project is still under development one year from now, we recommend that you contact us again so that we may update this response with the most current information.

Sincerely,

Nicholas B. Conrad
Information Resources Coordinator
NY Natural Heritage Program



The following state-listed animals have been documented on Galloo Island.

The following list includes animals that are listed by NYS as Endangered, Threatened, or Special Concern; and/or that are federally listed or are candidates for federal listing. The list may also include other rare animals and rare plants found with listed animals.

For information about any permit considerations for your project, contact the Permits staff at the NYSDEC Region 6 Office. For information about potential impacts of your project on these species, and how to avoid, minimize, or mitigate any impacts, contact the Wildlife Manager.

A listing of Regional Offices is at <http://www.dec.ny.gov/about/558.html>.

The following species have been documented on Galloo Island. Potential impacts from the project may need to be addressed.

| <i>COMMON NAME</i> | <i>SCIENTIFIC NAME</i> | <i>NY STATE LISTING</i> | <i>FEDERAL LISTING</i> |
|--|-----------------------------|-------------------------|------------------------|
| Upland Sandpiper <i>Breeding</i> | <i>Bartramia longicauda</i> | Threatened | 11556 |

This report only includes records from the NY Natural Heritage database. For most sites, comprehensive field surveys have not been conducted, and we cannot provide a definitive statement as to the presence or absence of all rare or state-listed species. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other sources may be required to fully assess impacts on biological resources.

If any rare plants or animals are documented during site visits, we request that information on the observations be provided to the New York Natural Heritage Program so that we may update our database.

Information about many of the listed animals in New York, including habitat, biology, identification, conservation, and management, are available online in Natural Heritage's Conservation Guides at www.guides.nynhp.org, and from NYSDEC at www.dec.ny.gov/animals/7494.html.



**The following rare animals have been documented in the
general vicinity of the proposed Galloo Island Wind Project.**

The impacts of wind turbines on animals include both impacts due to disturbance at the site of the turbines, and impacts due to flying birds and bats colliding with turbine blades. Therefore, when screening proposed wind energy projects for potential impacts on rare species, in addition to reporting rare plants and animals documented at the project site itself, NY Natural Heritage reports species of rare birds documented within 10 miles of the project site, and rare bats documented within 40 miles of the project site. These distances were determined in consultation with the NYSDEC Division of Fish, Wildlife and Marine Resources.

For information on NYSDEC's environmental review of proposed wind energy projects, and for the document *Guidelines for Conducting Bird and Bat Studies at Commercial Wind Energy Projects*, please go to www.dec.ny.gov/energy/66494.html.

Bats within 40 miles

| <i>COMMON NAME</i> | <i>SCIENTIFIC NAME</i> | <i>NY STATE LISTING</i> | <i>HERITAGE CONSERVATION STATUS*</i> |
|---|-------------------------------|---|--------------------------------------|
| Indiana Bat <i>Hibernacula and Non-winter locations</i> | <i>Myotis sodalis</i> | Endangered <i>and Federally Listed as Endangered</i> | S1 |
| Northern Long-eared Bat <i>Hibernacula and Non-winter locations</i> | <i>Myotis septentrionalis</i> | Threatened <i>and Federally Listed as Threatened</i> | S1 |
| Eastern Small-footed Myotis <i>Hibernaculum</i> | <i>Myotis leibii</i> | Special Concern | S2 |

Birds within 10 miles

| <i>COMMON NAME</i> | <i>SCIENTIFIC NAME</i> | <i>NY STATE LISTING</i> | <i>HERITAGE CONSERVATION STATUS*</i> |
|--|------------------------------|-------------------------|--------------------------------------|
| Common Tern <i>Breeding</i> | <i>Sterna hirundo</i> | Threatened | S3B |
| Short-eared Owl <i>Breeding and Wintering</i> | <i>Asio flammeus</i> | Endangered | S2 |
| Black Tern <i>Breeding</i> | <i>Chlidonias niger</i> | Endangered | S2B |
| Sedge Wren <i>Breeding</i> | <i>Cistothorus platensis</i> | Threatened | S3B |
| Northern Harrier <i>Breeding and Wintering</i> | <i>Circus cyaneus</i> | Threatened | S3B, S3N |

| | | | |
|---|-----------------------------|----------------|----|
| Pied-billed Grebe <i>Breeding</i> | <i>Podilymbus podiceps</i> | Threatened | S3 |
| Upland Sandpiper <i>Breeding</i> | <i>Bartramia longicauda</i> | Threatened | S3 |
| Caspian Tern <i>Breeding</i> | <i>Hydroprogne caspia</i> | Protected Bird | S1 |
| Cattle Egret <i>Breeding</i> | <i>Bubulcus ibis</i> | Protected Bird | S2 |

* Conservation status in NYS as ranked by NY Natural Heritage Program on a 1 to 5 scale:

S1 = Critically imperiled

S2 = Imperiled

S3 = Rare or uncommon

S4 = Abundant and apparently secure

S5 = Demonstrably abundant and secure

B after one of the above ranks indicates the status rank is for breeding populations only.

N after one of the above ranks indicates the status rank is for nonbreeding wintering populations only.

Galloo Island Wind

IPaC Trust Resources Report

Generated April 07, 2016 08:16 AM MDT, IPaC v3.0.0

This report is for informational purposes only and should not be used for planning or analyzing project level impacts. For project reviews that require U.S. Fish & Wildlife Service review or concurrence, please return to the IPaC website and request an official species list from the Regulatory Documents page.



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U.S. Fish & Wildlife Service

IPaC Trust Resources Report



NAME

Galloo Island Wind

LOCATION

Jefferson County, New York

IPAC LINK

<https://ecos.fws.gov/ipac/project/UK573-4IEHZ-C4HEH-BFH2J-KK6RMA>



U.S. Fish & Wildlife Service Contact Information

Trust resources in this location are managed by:

New York Ecological Services Field Office

3817 Luker Road

Cortland, NY 13045-9349

(607) 753-9334

Endangered Species

Proposed, candidate, threatened, and endangered species are managed by the [Endangered Species Program](#) of the U.S. Fish & Wildlife Service.

This USFWS trust resource report is for informational purposes only and should not be used for planning or analyzing project level impacts.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list from the Regulatory Documents section.

[Section 7](#) of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency.

A letter from the local office and a species list which fulfills this requirement can only be obtained by requesting an official species list either from the Regulatory Documents section in IPaC or from the local field office directly.

The list of species below are those that may occur or could potentially be affected by activities in this location:

Mammals

Indiana Bat *Myotis sodalis* Endangered

CRITICAL HABITAT

No critical habitat has been designated for this species.

https://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=A000

Northern Long-eared Bat *Myotis septentrionalis* Threatened

CRITICAL HABITAT

No critical habitat has been designated for this species.

https://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=A0JE

Critical Habitats

There are no critical habitats in this location

Migratory Birds

Birds are protected by the [Migratory Bird Treaty Act](#) and the [Bald and Golden Eagle Protection Act](#).

Any activity that results in the take of migratory birds or eagles is prohibited unless authorized by the U.S. Fish & Wildlife Service.^[1] There are no provisions for allowing the take of migratory birds that are unintentionally killed or injured.

Any person or organization who plans or conducts activities that may result in the take of migratory birds is responsible for complying with the appropriate regulations and implementing appropriate conservation measures.

1. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

Additional information can be found using the following links:

- Birds of Conservation Concern
<http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>
- Conservation measures for birds
<http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Year-round bird occurrence data
<http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/akn-histogram-tools.php>

The following species of migratory birds could potentially be affected by activities in this location:

American Bittern *Botaurus lentiginosus*

Season: Breeding

https://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=B0F3

Bird of conservation concern

Black Tern *Chlidonias niger*

Season: Breeding

https://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=B09F

Bird of conservation concern

Black-billed Cuckoo *Coccyzus erythrophthalmus*

Season: Breeding

https://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=B0HI

Bird of conservation concern

Blue-winged Warbler *Vermivora pinus*

Season: Breeding

Bird of conservation concern

| | |
|--|------------------------------|
| Canada Warbler <i>Wilsonia canadensis</i> Season: Breeding | Bird of conservation concern |
| Common Tern <i>Sterna hirundo</i> Season: Breeding https://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=B09G | Bird of conservation concern |
| Golden-winged Warbler <i>Vermivora chrysoptera</i> Season: Breeding https://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=B0G4 | Bird of conservation concern |
| Least Bittern <i>Ixobrychus exilis</i> Season: Breeding https://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=B092 | |
| Olive-sided Flycatcher <i>Contopus cooperi</i> Season: Breeding https://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=B0AN | Bird of conservation concern |
| Pied-billed Grebe <i>Podilymbus podiceps</i> Season: Breeding | Bird of conservation concern |
| Red-headed Woodpecker <i>Melanerpes erythrocephalus</i> Season: Breeding | Bird of conservation concern |
| Short-eared Owl <i>Asio flammeus</i> Season: Wintering https://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=B0HD | Bird of conservation concern |
| Wood Thrush <i>Hylocichla mustelina</i> Season: Breeding | Bird of conservation concern |
| Yellow Rail <i>Coturnicops noveboracensis</i> Season: Breeding https://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=B0JG | Bird of conservation concern |

Wildlife refuges and fish hatcheries

There are no refuges or fish hatcheries in this location

Wetlands in the National Wetlands Inventory

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

DATA LIMITATIONS

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

DATA EXCLUSIONS

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

DATA PRECAUTIONS

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

Wetland data is unavailable at this time.