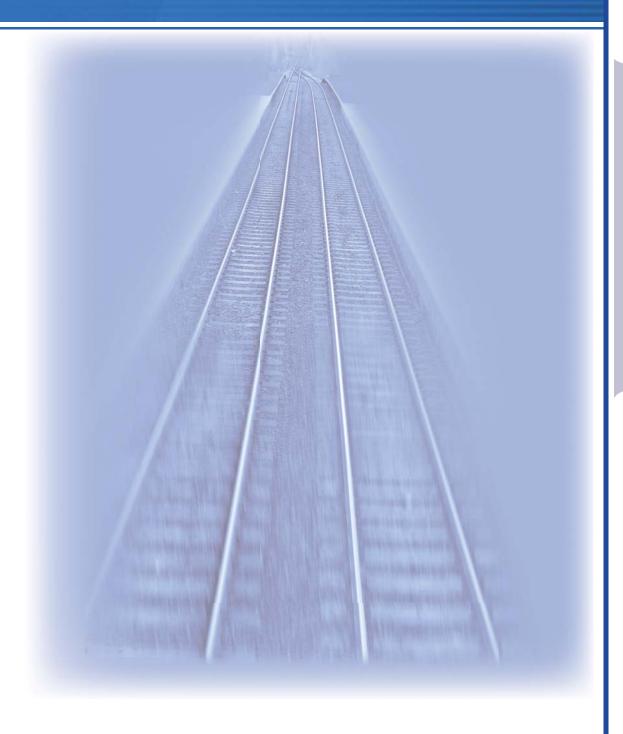
Appendix

THREATENED AND ENDANGERED SPECIES



Species	Stat	us		General Habitat		
Scientific and Common Names	Fed	IL	County	Type	Habitat Description	
Mammals						
Myotis sodalis Indiana bat	Е	Е	Statewide IL	Floodplain Forest Caves	Myotis sodalis hibernates in caves; maternity sites generally are behind loose bark of dead or dying trees or in tree cavities. Forested landscapes are the most important habitat in agricultural landscapes. Known roost tree species include elm, oak, beech, hickory, maple, ash, sassafras, birch, sycamore, locust, aspen, cottonwood, pine, and hemlock (natureserve.org)	
*Spermophilus franklinii Franklin's ground squirrel	-	Т	Mclean, Macoupin	Agricultural (crop, pasture) Water (riparian)	This species has a strong affinity for tallgrass and mid-grass prairies. It also uses riparian areas (marsh edges), forest-field edges, fields, hedgerows, and unmowed strips along railroad rights-of-way and roadsides. It generally avoids shortgrass habitats. Nests are in underground burrows (natureserve.org).	
Birds						
Ammodramus henslowii Henslow's sparrow	-	Т	Cook, Grundy	Agricultural (crop, pasture) Wetland (forest, non-forest)	BREEDING: Open fields and meadows with grass interspersed with weeds or shrubby vegetation, especially in damp or low-lying areas, adjacent to salt marsh in some areas. Found in a variety of habitats that contain tall, dense grass and herbaceous vegetation. Birds are reported to have bred consistently in some undisturbed, protected areas like Goose Lake Prairie (natureserve.org)	

^{*}Refer to Exhibits 5.6-1 thru 5.6-3 in Chapter 5 of this Tier 1 DEIS for the locations of the species' records of occurrence within the existing and proposed railroad right-of-way.

T = Threatened, E = Endangered, C = Candidate

Species	Stat	us		General Habitat			
Scientific and Common Names	Fed	IL	County	Туре	Habitat Description		
Asio flammeus short-eared owl	-	Е	Cook, Mclean	Agricultural (crop, pasture) Wetland (forest, non-forest) Barren (sand)	In Illinois, prefers wet prairies. Ground nester raising young in same habitat. 55% nest in grasslands (prairies), 24% in grain stubble, and 14% in hayfields. Nearly all Illinois nest records are from grassland areas at least 50 hectares in size.		
*Bartamia longicauda upland sandpiper	-	Е	Cook, Grundy, Mclean, Will	Agricultural (crop, pasture) Urban (Transportation/communication, other)	Reported in open grasslands near airports, schools, roadsides, and other areas. Prefers pastures and hayfields. Associated with open grassland habitats such as pastures, hayfields and prairie remnants with an average grass height less than 30 cm		
Botaurus lentiginosus American bittern	-	Е	Grundy	Wetland (forest)	BREEDING: Primarily large freshwater and (less often) brackish marshes, including lake and pond edges where cattails, sedges, or bulrushes are plentiful and marshes where there are patches of open water and aquatic-bed vegetation. Wetlands of 2.5 ha or more may support nesting; smaller wetlands may serve as alternate foraging sites. Nests primarily in inland freshwater wetlands, sometimes in tidal marshes or in sparsely vegetated wetlands or dry grassy uplands. (natureserve.org)		

^{*}Refer to Exhibits 5.6-1 thru 5.6-3 in Chapter 5 of this Tier 1 DEIS for the locations of the species' records of occurrence within the existing and proposed railroad right-of-way.

T = Threatened, E = Endangered, C = Candidate

Species	Stat	us		General Habitat	
Scientific and Common Names	Fed	IL	County	Туре	Habitat Description
Circus cyaneus northern harrier	-	Е	Grundy, Will	Agricultural (crop, pasture) Wetland (nonforest)	BREEDING: Marshes, meadows, grasslands, and cultivated fields. Perches on ground or on stumps or posts. Nests on the ground, commonly near low shrubs, in tall weeds or reeds, sometimes in bog; or on top of low bush above water, or on knoll of dry ground, or on higher shrubby ground near water, or on dry marsh vegetation. During the breeding season, females often hunt in areas adjacent to the nest site. Males hunt farther from the nest where they may encounter habitat types different than those located adjacent to nests. (natureserve.org)
Egretta caerulea little blue heron	-	E	Cook, Madison, St. Clair	Agricultural (crop, pasture) Wetland (forest, non-forest) Water (stream, lake, reservoir)	Occurs in lakes, ponds, marshes, sloughs, marshy shores of streams, and coastal estuaries. In Illinois, usually nests in association with other herons. Nests are placed in stands of young trees, primarily black willows and cottonwoods forming dense thickets.
Egretta thula snowy egret	-	E	Cook, St. Clair	Agricultural (crop, pasture) Wetland (forest, non-forest) Water (stream, lake, reservoir)	Usually occurs in loose groups. Roosts usually communally. Nests in trees or shrubs or, in some areas, on ground or in marsh vegetation. Often nests with other colonial water birds. Nests over water or ground. Willow species and buttonbush stands are common nesting places

T = Threatened, E = Endangered, C = Candidate

Species	Stat	us		General Habitat	
Scientific and Common Names	Fed	IL	County	Туре	Habitat Description
<i>Ixobrychus exilis</i> least bittern	-	Т	Cook, Grundy, Sangamon, Will	Wetland (forest, non forest) Water (stream, lake, reservoir, bay)	Nesting usually occurs among dense, tall growths of emergent vegetation (particularly cattail (TYPHA spp.), sedge (CAREX spp.), bulrush (SCIRPUS spp.), or common reed (PHRAGMITES AUSTRALIS)), interspersed with some woody vegetation and open, fresh water. More densely or sparsely vegetated wetlands contained fewer nests, and interspersion of water and cover may thus be an important characteristic of breeding habitats. (natureserve.org)
<u>*</u> Lanius ludovicianus loggerhead shrike	-	Е	Grundy, McLean, St. Clair, Sangamon, Will	Agricultural (crop, pasture) Urban (residential) Forestland (deciduous, evergreen)	In the Midwest, this species inhabits open, agricultural areas interspersed with grassland habitat. Most nests found in Illinois are in osage orange, honey locust, red cedar and rose.
Nyctanassa violacea Yellow-crowned night heron	-	Е	Cook, St. Clair	Agricultural (crop, pasture) Forestland Wetland Water	Wetlands for foraging and bottomland forest for nesting

^{*}Refer to Exhibits 5.6-1 thru 5.6-3 in Chapter 5 of this Tier 1 DEIS for the locations of the species' records of occurrence within the existing and proposed railroad right-of-way.

T = Threatened, E = Endangered, C = Candidate

Species	Stat	us		General Habitat			
Scientific and Common Names	Fed	IL	County	Туре	Habitat Description		
Nycticorax nycticorax black-crowned night heron		E	Cook, Madison, St. Clair, Sangamon, Will	Wetland (forest, non forest) Water (stream, lake, reservoir, bay)	Seems adapted to nearly every conceivable habitat in a wading bird may exist. Marshes, swamps, wooded streams, mangroves, shores of lakes, ponds, lagoons; salt water, brackish, and freshwater situations. Roosts by day in mangroves or swampy woodland. Eggs are laid in a platform nest in groves of trees near coastal marshes or on marine islands, swamps, marsh vegetation, clumps of grass on dry ground, orchards, and in many other situations. Nests usually with other heron species.		
Rallus elegans king rail	-	Е	Cook, Grundy, Will	Agricultural (crop, pasture) Water (stream, lake, bay) Wetland (nonforested)	Found in marshes, shrub swamps, ponds, stream side, roadside ditches, mudflats or upland fields.		
Sterna antillarum least tern	Е	Е	Madison, St. Clair	Water (stream, lake, reservoir) Barren (beach, sand)	Interior populations nest mainly on riverine sandbars or salt flats that become exposed during periods of low water. breeding in riverine situations depends on the presence of sandbars, favorable water levels during nesting season, and sufficient food (natureserve.org).		
<i>Tyto alba</i> common barn owl	-	E	St. Clair, Will	Urban (residential) Agricultural (crop, pasture, orchard, groves, nurseries) Wetland (non- forest)	Occurs in open and partly open areas often near human habitation such as residential and agricultural areas, old fields and woodland edges.		

T = Threatened, E = Endangered, C = Candidate

Species	Stat	us		General Habitat		
Scientific and Common Names	Fed	IL	County	Туре	Habitat Description	
Reptiles						
Clonophis kirtlandii Kirtland's snake	-	Т	Cook, McLean, Sangamon, Will	Wetland (forest) Water Urban Grassland (meadow)	Occurs in wet meadows, open swamp- forests, reservoirs, and occasionally wet, vacant urban areas.	
*Emydoidea blandingii Blanding's turtle	-	Е	Will	Water (stream, lake, pond) Wetland (forested, herbaceous, riparian, scrub- shrub)	Marshes, ponds, swamps, lake shallows, backwater sloughs, shallow slow-moving rivers, protected coves and inlets of large lakes, oxbows, and pools adjacent to rivers; waters with soft bottom and aquatic vegetation. Sometimes leaves water and walks overland. Eggs are laid usually in sandy soil in upland areas, usually in warm sunny sites. In Illinois peak activity was observed in the turtles during the morning in May, but afternoon activities increased during June and July. (www.naturesurve.org)	
Sistrurus catenatus eastern massasauga	С	Е	Cook, Madison, Will	Wetland (forest, non-forest) Forestland	Occurs in wet prairies, bogs, swamps, and rarely dry woodlands. May hide in underground cavities or crayfish holes.	
Amphibian				,	,	
Pseudacris streckeri illinoensis Illinois chorus frog	-	Т	Madison		Open sandy areas of river lowlands. Ideal habitat of this type is available on the central Illinois sand prairies, adjacent to the Illinois River.	

^{*}Refer to Exhibits 5.6-1 thru 5.6-3 in Chapter 5 of this Tier 1 DEIS for the locations of the species' records of occurrence within the existing and proposed railroad right-of-way.

T = Threatened, E = Endangered, C = Candidate

Species	Stat	us		General Habitat		
Scientific and Common Names	Fed	IL	County	Туре	Habitat Description	
Fish						
*Moxostoma carinatum river redhorse	-	Т	Grundy, Livingston, Will	Water (stream, lake)	Generally confined to clearer large creeks and rivers; occasionally in natural lakes and reservoirs. Adults generally occupy moderate to swift water over clean gravel, boulders, and rubble, or in deep, fast-flowing portions of pools. Small individuals often are in pool shallows and backwaters. Spawns in excavated nest in gravel and gravel-rubble in shoals or large runs. Intolerant of pollution and heavy siltation (natureserve.org).	
Scaphirhynchus albus pallid sturgeon	Е	Е	Madison, St. Clair	Open Water	Rivers	
Invertebrates						
Aflexia rubranura red-veined leaf hopper	-	Т	Grundy, Will	Grassland (prairie)	Occurs in large prairie areas that have populations of prairie dropseed. Known to occur near Midewin Tallgrass Prairie, and it can survive in small patches along the railroad.	
*Cumberlandia monodonta spectaclecase mussel	E		Madison	Water (stream)	Large rivers in areas sheltered from the main force of the current.	
<u>*</u> Elliptio dilatata spike	-	Т	Livingston	Water (stream)	It occurs in medium streams to large rivers primarily in shoal habitat of unimpounded streams and rivers but can occasionally be found in tailwaters of dams (Tennessee River) in water 4 to 8 m deep and can even be found in lakes under some conditions (natureserve.org).	

^{*}Refer to Exhibits 5.6-1 thru 5.6-3 in Chapter 5 of this Tier 1 DEIS for the locations of the species' records of occurrence within the existing and proposed railroad right-of-way.

T = Threatened, E = Endangered, C = Candidate

Species	Stat	us		General Habitat	Habitat Description	
Scientific and Common Names	Fed	IL	County	Туре		
*Epioblasma triqueta snuffbox	Е		Will	Water (stream)	Small to medium creeks in areas with swift current and some large rivers.	
Gammarus acherondytes Illinois cave amphipod	Е	Е	St. Clair	Subterranean Stream	It is endemic to the Illinois Sinkhole Plain in Monroe and St. Clair.	
*Papaipema eryngii Eryngium stem borer	-	Е	Grundy, Will	Grassland (prairie)	Occurs only in large prairie areas that have abundant populations of rattlesnake master, its larval host plant.	
Plethobasus cyphyus sheepnose	E	Е	Will	Water (stream)	Although it does inhabit medium-sized rivers, this mussel generally has been considered a large-river species. It may be associated with riffles and gravel/cobble substrates but usually has been reported from deep water (>2 m) with slight to swift currents and mud, sand, or gravel bottoms. Specimens in larger rivers may occur in deep runs (natureserve.org).	
*Simpsonaias ambigua salamander mussel	-	E	Will	Water (stream)	Although occasionally found elsewhere, there is little doubt the preferred habitat is in sand or silt under large, flat stones in areas of a swift current in medium to large rivers and lakes. Its presence is presumably linked to the mudpuppy, <i>Necturus maculosus</i> , and it is usually rare though can be abundant in patches. (natureserve.org)	

^{*}Refer to Exhibits 5.6-1 thru 5.6-3 in Chapter 5 of this Tier 1 DEIS for the locations of the species' records of occurrence within the existing and proposed railroad right-of-way.

T = Threatened, E = Endangered, C = Candidate

Species	Stat	us		General Habitat		
Scientific and Common Names	Fed	IL	County	Туре	Habitat Description	
Somatochlora hieana Hines emerald dragonfly	Е	Е	Cook, Will	Water (stream) Wetland (non- forested)	The Hine's emerald dragonfly lives in calcareous (high in calcium carbonate) spring-fed marshes and sedge meadows overlaying dolomite bedrock. The species lives in wetlands dominated by grass or grass-like plants that are groundwater fed and shallow. Soil types range from organic muck to mineral soils like marl. A nearby forest edge is also important (Zercher, 2001)	

T = Threatened, E = Endangered, C = Candidate

Species	Stat	us		
Scientific and Common Names	Fed	IL	County	Habitat Description
*Asclepias meadii Mead's milkweed	Т	Е	Will	Mead's milkweed is a species of dry-mesic to mesic tallgrass prairies a community that is climate and fire-adapted and maintained. The species has also been recorded from chert glades and sandstone rockledges. Plants seem to prefer full sun, occupying slopes that grade between 0 and 18%. In Illinois populations occur in tallgrass prairie, dry barrens, and a single sandstone escarpment (natureserve.org).
*Astragalus crassicarpus var. trichocalyx large ground plum	-	E	Jersey, Macoupin,	Open rocky woodlands and coming out onto the edge of prairies, pastures, and along roadsides (natureserve.org).
Boltonia decurrens decurrent false aster	Т	Т	Jersey, Madison, St. Clair	Disturbed alluvial soils. This plant is found on moist, sandy, floodplains and prairie wetlands along the Illinois River. It relies on periodic flooding to scour away other plants that compete for the same habitat. Several communities of decurrent false asters have been found in areas of low-intensity agriculture. Biologists believe that the plant may actually benefit from occasional farming, which eliminates competitive plant species.

^{*}Refer to Exhibits 5.6-1 thru 5.6-3 in Chapter 5 of this Tier 1 DEIS for the locations of the species' records of occurrence within the existing and proposed railroad right-of-way.

T = Threatened, E = Endangered, C = Candidate

Species	Status			
Scientific and Common Names	Fed	IL	County	Habitat Description
*Calopogon oklahomensis Oklahoma grass pink orchid	-	E	Will	Prefers mesic, acidic, sandy to loamy soils; avoids the wetter habitats preferred by most of the other species in the genus. Found in tallgrass and coastal prairies (including prairie remnants such as those beside railroads as well as prairie-haymeadows and other mowed meadows), savannas (such as longleaf pine savannas) and wetland savanna borders, moderately open woodlands (such as post oak-blackjack oak woodlands), hillside seepage bogs and edges of bogs; occasionally in pine plantations, acidic wet barrens, or claypan savannas. Appears to thrive under relatively frequent fires (every 1-3 years, particularly dormant-season burns), late-season haymeadow mowing (where most or all of the above-ground vegetation is effectively removed once every 1-2 years, with thatch not left behind), and perhaps light grazing (natureserve.org).
Calopogon tuberosus grass pink orchid	-	E	Cook, Grundy, Will	A diverse range of open wet situations w/ only apparent common factors being full sun light & constant water supply. Prairies, bogs and fens.
Carex viridula little green sedge	-	Т	Cook	Dune swales, marl flats, disturbed calcareous sites. Green sedge forms small bunches on wet stream banks and the edges of ponds (natureserve.org).
*Dalea foliosa leafy prairie clover	Е	Е	Cook, Will	Mesic dolomite river-terrace prairies of northeastern Illinois. Restricted to thin-soiled (< 4.5 dm), wet or moist, open dolomite prairies on river terraces in the northeastern part of the state (natureserve.org). Known from four locations along the Des Plaines River.

^{*}Refer to Exhibits 5.6-1 thru 5.6-3 in Chapter 5 of this Tier 1 DEIS for the locations of the species' records of occurrence within the existing and proposed railroad right-of-way.

T = Threatened, E = Endangered, C = Candidate

Species	Status			
Scientific and Common Names	Fed	IL	County	Habitat Description
Drosera intermedia narrow-leaved sundew	-	Т	Cook, Grundy, Kankakee, Will	Peat bogs and wet sand prairies in Illinois. Usually in the wettest parts of bogs and on sandy shores subject to periodic inundation.
Hymenopsis herbacea lakeside daisy	Е		Will	Dry, rocky prairies.
Isoetes butleri Quillwort	-	Е	Will	Seasonably wet spots in thin soil over limestone and dolomite bedrock in dolomite prairie.
*Liatris scariosa var. nieuwlandii blazing star	-	Т	Cook, Macoupin, Will	Dry sandy prairie remnants, fields, hillsides; woodlands and barrens with jack pine, oak, aspen; associated roadsides and railroads.
*Melanthium virginicum bunchflower	-	Т	Macoupin	Flowering late springsummer. Bogs, marshes, wet woods, savannas, meadows, along railroads.
Mimuartia patula slender sandwort	-	Т	Cook, Grundy, Will	Dolomite prairies along the Des Plaines, Fox, and Illinois rivers. Rocky soils, barrens, and meadows.
Plantanthera leucophaea prairie white fringed orchid	Т	Е	Cook, Will, St. Clair, Jersey, Sangamon, Macoupin, Mclean, Logan, Madison, Livingston, Grundy	From wet to mesic prairie or wetland communities, including, but not limited to sedge meadow, fen, marsh, or marsh edge. It can occupy a very wide moisture gradient of prairie and wetland vegetation. In some cases, the species may also occur along ditches or roadways where this type of habitat is present. Peripheral habitat includes sedge-sphagnum bog mats around neutral pH kettle lakes, and fallow agricultural fields. Wet ditches and railroad rights-of-way also serve as refugia.

^{*}Refer to Exhibits 5.6-1 thru 5.6-3 in Chapter 5 of this Tier 1 DEIS for the locations of the species' records of occurrence within the existing and proposed railroad right-of-way.

T = Threatened, E = Endangered, C = Candidate

1 - Theatened, L - Endangered, C - Canadate							
Silene regia royal catchfly		Е	Cook, Macoupin, Madison	In Illinois, <i>S. regia</i> occurs along roadsides and in gravel prairies. A historic population was known from a loess hill prairie in St. Clair County. <i>Silene regia</i> is an inhabitant of prairie, open woodlands and glades. Preferred substrate is typically well-drained soils that are calcareous in nature. (natureserve.org)			

Species	Stat	us	County	Habitat Description
Scientific and Common Names	Fed	ed IL		
Sisyrinchium atlanticum eastern blue-eyed grass	-	Т	Kankakee, Macoupin	Mesic prairie habitat in Illinois. Historically found in railroad prairie in Macoupin County.
*Tomanthera auriculata ear-leaved foxglove	-	Т	Will, Macoupin	Habitats include mesic black soil prairies, thickets containing grasses and occasional shrubs, savannas, woodland borders, abandoned fields, and areas along railroads (particularly where remnant prairies occur).
Tradescantia bracteata prairie spiderwort	-	Т	Madison	Dry-mesic silt and sand prairies in western Illinois. Known to have occurred at several locations along railroad right-of-ways.

^{*}Refer to Exhibits 5.6-1 thru 5.6-3 in Chapter 5 of this Tier 1 DEIS for the locations of the species' records of occurrence within the existing and proposed railroad right-of-way.

T = Threatened, E = Endangered, C = Candidate

Sources: NatureServe, 2011 and Zercher D., 2001