

Appendix L  
Threatened and Endangered Species  
and Species of Concern

**NOTICE**

The information contained in this Appendix was developed strictly for the purpose of evaluating the environmental impacts associated with the Ambassador Bridge Enhancement Project and responding to the regulatory requirements applicable to this proposal. Use of this information for other purposes is not intended, and any such use is at the risk of the user.



Ambassador Bridge Enhancement Project

# Threatened and Endangered Species and Species of Concern Information

Prepared by

American Consulting Professionals of New York, PLLC  
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April 2007

**Lists of Federal and State Threatened and Endangered Species and Species of Concern that may be found in Wayne County, Michigan and the Province of Ontario. Aquatic plants are listed along with terrestrial species.**

**NOTE: See Aquatic Ecology Attachment for a list of threatened and endangered species of fish and mollusk.**

## Plant Species

Listed plant species in Wayne county of Michigan and in the Province of Ontario by the Michigan Natural Features Inventory, the United States Fish and Wildlife Services, and the Committee on the Status of Endangered Wildlife in Canada of the Ontario Ministry of Natural Resources. X = believed extirpated, SC = Species of Special Concern, T = threatened, and E = endangered, (-) = not listed.

Scientific Name	Common Name	Ontario Status	Michigan Status	U.S. Federal Status
<i>Adlumia fungosa</i>	Climbing Fumitory	-	SC	-
<i>Agalinis gattereri</i>	Gatterer's Agalinis	E	-	-
<i>Agalinis skinneriana</i>	Skinner's Agalinis	E	-	-
<i>Aletris farinosa</i>	Colicroot	T	-	-
<i>Ammannia robusta</i>	Scarlet Ammannia	E	-	-
<i>Angelica venenosa</i>	Hairy Angelica	-	SC	-
<i>Arabis missouriensis var deamii</i>	Missouri Rock-Cress	-	SC	-
<i>Arisaema dracontium</i>	Green Dragon	SC	-	-
<i>Aristida basiramea</i>	Forked three-awned grass	E	-	-
<i>Aristida longespica</i>	Three-awned grass	-	T	-
<i>Aristolochia serpentaria</i>	Virginia snakeroot	-	T	-
<i>Arnoglossum plantagineum</i>	Tuberous Indian-plantain	SC	-	-
<i>Asclepias hirtella</i>	Tall Green Milkweed	-	T	-
<i>Asclepias sullivantii</i>	Sullivant's Milkweed	-	T	-
<i>Asplenium scolopendrium var. americanum</i>	American hart's tongue	SC	-	T
<i>Bartonia paniculata ssp. paniculata</i>	Branched Bartonia	T	-	-
<i>Buchnera americana</i>	Blue-hearts	E	X	-
<i>Camassia scilloides</i>	Wild-hyacinth	T	T	-
<i>Carex Frankii</i>	Frank's sedge	-	SC	-
<i>Carex juniperorum</i>	Juniper sedge	E	-	-
<i>Carex lupuliformis</i>	False Hop Sedge	E	-	-
<i>Carex squarrosa</i>	Sedge	-	SC	-
<i>Castanea dentata</i>	American Chestnut	T	E	-
<i>Celtis tenuifolia</i>	Dwarf Hackberry	T	-	-
<i>Chimaphila maculata</i>	Spotted Wintergreen	E	-	-
<i>Cirsium pitcheri</i>	Pitcher's Thistle	E	-	T
<i>Cyperus flavescens</i>	Yellow Nut-grass	-	SC	-
<i>Cypripedium candidum</i>	Small White Lady's Slipper	E	-	-
<i>Diarrhena americana</i>	Beak Grass	-	T	-
<i>Eleocharis engalmanii</i>	Engelmann's Spikerush	-	SC	-
<i>Eleocharis equisetoides</i>	Horsetail Spikerush	E	-	-
<i>Enemion biternatum</i>	False Rue-anemone	SC	-	-

Scientific Name	Common Name	Ontario Status	Michigan Status	U.S. Federal Status
<i>Eragrostis pilosa</i>	Small Love Grass	-	SC	-
<i>Euonymus atropurpurea</i>	Wahoo	-	SC	-
<i>Euphorbia commutata</i>	Tinted Spurge	-	T	-
<i>Eurybia divaricata</i>	White Wood Aster	T	-	-
<i>Frasera caroliniensis</i>	American Columbo	SC	-	-
<i>Fraxinus profunda</i>	Pumpkin Ash	-	T	-
<i>Fraxinus quadrangulata</i>	Blue ash	SC	-	-
<i>Galearis spectabilis</i>	Showy Orchis	-	T	-
<i>Gentiana alba</i>	White Prairie Gentian	E	-	-
<i>Gentianella quinquefolia</i>	Stiff Gentian	-	T	-
<i>Geum virginianum</i>	Pales Avens	-	SC	-
<i>Gymnocladus dioicus</i>	Kentucky Coffee-tree	T	SC	-
<i>Hibiscus moscheutos</i>	Swamp Rose-Mallow	SC	SC	-
<i>Hybanthus concolor</i>	Green Violet	-	SC	-
<i>Hydrastis canadensis</i>	Goldenseal	T	T	-
<i>Hymenoxys herbacea</i>	Lakeside daisy	T	-	T
<i>Hypericum gentianoides</i>	Gentian-leaved St. John's-wort	-	SC	-
<i>Iris lacustis</i>	Dwarf Lake Iris	-	T	T
<i>Isoetes engelmannii</i>	Engelmann's Quillwort	E	-	-
<i>Isotria medeoloides</i>	Small-whorled pogonia	E	-	T
<i>Isotria verticillata</i>	Large Whorled Pogonia	E	T	-
<i>Jeffersonia diphylla</i>	Twinleaf	-	SC	-
<i>Juglans cinerea</i>	Butternut	E	-	-
<i>Juncus brachycarpus</i>	Short-fruited Rush	-	T	-
<i>Juncus vaseyi</i>	Vasey's Rush	-	T	-
<i>Justicia americana</i>	Water-willow	T	T	-
<i>Lactuca floridana</i>	Woodland Lettuce	-	T	-
<i>Lespedeza virginica</i>	Slender bush-clover	E	-	-
<i>Leucospora multifida</i>	Conobea	-	SC	-
<i>Liatris spicata</i>	Dense Blazing Star	T	-	-
<i>Lipocarpha micrantha</i>	Small-flowered Lipocarpha	E	-	-
<i>Liparis liliifolia</i>	Purple Twayblade	E	SC	-
<i>Ludwigia alternifolia</i>	Seedbox	-	SC	-
<i>Lycopodiella margueritae</i>	Northern Prostrate Clubmoss	-	T	-
<i>Lycopodiella subappressa</i>	Northern Appressed Clubmoss	-	SC	-
<i>Lysimachia hybrida</i>	Swamp Candles	-	SC	-
<i>Magnolia acuminata</i>	Cucumber Tree	E	-	-
<i>Morus rubra</i>	Red Mulberry	E	T	-
<i>Nelumbo lutea</i>	American lotus	-	T	-

<b>Scientific Name</b>	<b>Common Name</b>	<b>Ontario Status</b>	<b>Michigan Status</b>	<b>U.S. Federal Status</b>
<i>Obovaria olivaria</i>	Hickorynut	-	SC	-
<i>Obovaria subrotundra</i>	Round Hickorynut	-	E	-
<i>Opuntia humifusa</i>	Eastern Prickly Pear Cactus	E	-	-
<i>Panax quinquefolius</i>	Ginseng	E	T	-
<i>Penstemon pallidus</i>	Pale Beard Tongue	-	SC	-
<i>Phaseolus polystachios</i>	Wild Bean	-	SC	-
<i>Phegopteris hexagonoptera</i>	Broad Beech Fern	SC	-	-
<i>Plantago cordata</i>	Heart-leaved Plantain	E	-	-
<i>Platanthera leucophaea</i>	Prairie Fringed Orchid	E	E	T
<i>Polygala cruciata</i>	Cross-leaved milkwort	-	SC	-
<i>Polygala incarnata</i>	Pink milkwort	E	X	-
<i>Potentilla paradoxa</i>	Sand Cinquefoil	-	T	-
<i>Potamogeton hillii</i>	Hill's Pondweed	T	-	-
<i>Ptelea trifoliata</i>	Common Hoptree	T	-	-
<i>Pycnanthemum incanum</i>	Hoary Mountain-mint	E	-	-
<i>Quercus shumardii</i>	Shumard's Oak	SC	SC	-
<i>Rhexia virginica</i>	Meadow-beauty	-	SC	-
<i>Rosa setigera</i>	Climbing Prairie Rose	SC	-	-
<i>Rotala ramosior</i>	Tooth-cup	E	SC	-
<i>Ruellia humilis</i>	Hairy Ruellia	-	T	-
<i>Sagittaria montevidensis</i>	Arrowhead	-	T	-
<i>Sanguisorba canadensis</i>	Canadian Burnet	-	T	-
<i>Scirpus clintonii</i>	Clinton's Bulrush	-	SC	-
<i>Scleria pauciflora</i>	Few-flowered nut-rush	-	E	-
<i>Scleria triglomerata</i>	Tall nut-rush	-	SC	-
<i>Silene virginica</i>	Fire Pink	-	T	-
<i>Silphium laciniatum</i>	Compass-plant	-	T	-
<i>Silphium perfoliatum</i>	Cup-plant	-	T	-
<i>Smilax herbacea</i>	Smooth Carrion-flower	-	SC	-
<i>Smilax rotundifolia</i>	Round-leaved Greenbrier	T	-	-
<i>Solidago riddellii</i>	Riddell's Goldenrod	SC	-	-
<i>Solidago speciosa</i>	Showy Goldenrod	E	-	-
<i>Strophostyles helvula</i>	Trailing Wild Bean	-	SC	-
<i>Stylophorum diphyllum</i>	Wood Poppy	E	-	-
<i>Symphyotrichum praealtum</i>	Willowleaf Aster	T	-	-
<i>Symphyotrichum prenanthoides</i>	Crooked-stem Aster	T	-	-
<i>Symphyotrichum sericeum</i>	Western Silvery Aster	E	-	-
<i>Tephrosia virginiana</i>	Virginia's Goat-rue	E	-	-
<i>Trichophorum planifolium</i>	Bashful Bulrush	E	-	-
<i>Trillium flexipes</i>	Drooping trillium	E	-	-
<i>Trillium recurvatum</i>	Prairie Trillium	-	T	-

<b>Scientific Name</b>	<b>Common Name</b>	<b>Ontario Status</b>	<b>Michigan Status</b>	<b>U.S. Federal Status</b>
<i>Triphora trianthophora</i>	Nodding Pogonia	E	-	-
<i>Vaccinium stamineum</i>	Deerberry	T	-	-
<i>Viola pedata</i>	Bird's foot violet	E	-	-
<i>Wisteria frutescens</i>	Wisteria	-	T	-
<i>Woodsia obtusa</i>	Blunt-lobed Woodsia	E	T	-
<i>Zizania aquatica</i> var. <i>aquatica</i>	Wild Rice	-	T	-



## Avian Species

Listed bird species in Wayne county of Michigan and in the Province of Ontario by the Michigan Natural Features Inventory, the United States Fish and Wildlife Services, and the Committee on the Status of Endangered Wildlife in Canada of the Ontario Ministry of Natural Resources. SC = Species of Special Concern, T = threatened, and E = endangered, (-) = not listed.

Scientific Name	Common Name	Michigan State Status	Ontario Status	U.S. Status
<i>Ammodramus henslowii</i>	Henslow's sparrow	T	E	-
<i>Asio flammeus</i>	Short-eared owl	E	SC	-
<i>Buteo lineatus</i>	Red-shouldered Hawk	T	SC	-
<i>Charadrius melodus circumcinctus</i>	Piping Plover	E	E	E
<i>Colinus virginianus</i>	Northern Bobwhite	-	E	-
<i>Coturnicops noveboracensis</i>	Yellow Rail	T	SC	-
<i>Dendroica cerulea</i>	Cerulean warbler	SC	SC	-
<i>Dendroica kirklandii</i>	Kirkland's warbler	E	E	E
<i>Empidonax vireescens</i>	Acadian flycatcher	-	E	-
<i>Falco Peregrinus</i>	Peregrine Falcon	E	T	-
<i>Haliaeetus leucocephalus</i>	Bald Eagle	T	E	T
<i>Lanius ludovicianus migrans</i>	Eastern Loggerhead Shrike	-	E	-
<i>Icteria virens virens</i>	Yellow-breasted Chat	-	SC	-
<i>Ixobrychus exilis</i>	Least Bittern	T	T	-
<i>Melanerpes erythrocephalus</i>	Red-headed woodpecker	-	SC	-
<i>Numenius borealis</i>	Eskimo Curlew	-	E	-
<i>Nycticorax nycticorax</i>	Black-crowned Night Heron	SC	-	-
<i>Protonotaria citrea</i>	Prothonotary warbler	SC	E	-
<i>Rallus elegans</i>	King Rail	E	E	-
<i>Seiurus motacilla</i>	Louisiana waterthrush	SC	SC	-
<i>Tyto alba</i>	Barn Owl	E	E	-
<i>Wilsonia citrina</i>	Hooded Warbler	SC	T	-

## Reptiles and Amphibians

Listed reptile and amphibian species in Wayne county of Michigan and in the Province of Ontario by the Michigan Natural Features Inventory, the United States Fish and Wildlife Services, and the Committee on the Status of Endangered Wildlife in Canada of the Ontario Ministry of Natural Resources. X= believed extirpated, SC = Species of Special Concern, T = threatened, and E = endangered, (-) = not listed.

Scientific Name	Common Name	Michigan State Status	Ontario Status	U.S Status
<i>Acris crepitans</i>	Northern (Blanchard's) Cricket Frog	SC	E	-
<i>Ambystoma jeffersonianum</i>	Jefferson Salamander	-	T	-
<i>Ambystoma texanum</i>	Smallmouth Salamander	E	E	-
<i>Apalone spinifera</i>	Spiny softshell	-	T	-
<i>Bufo fowleri</i>	Fowler's Toad	-	T	-
<i>Clemmys guttata</i>	Spotted Turtle	T	E	-
<i>Coluber constrictor foxii</i>	Blue Racer	-	E	-
<i>Elaphe gloydi</i>	Eastern Foxsnake	-	T	-
<i>Elaphe obsoleta</i>	Eastern (Black) Rat Snake	SC	T	-
<i>Elaphe vulpine gloydi</i>	Eastern Fox Snake	T	T	-
<i>Eumeces fasciatus</i>	Five-lined Skink	-	SC	-
<i>Glyptemys insculpta</i>	Wood Turtle	SC	E	-
<i>Graptemys geographica</i>	Northern Map Turtle	-	SC	-
<i>Gyrinophilus porphyriticus</i>	Spring Salamander	-	X	-
<i>Heterodon platirhinos</i>	Eastern hog-nose snake	-	T	-
<i>Lampropeltis triangulum</i>	Milksnake	-	SC	-
<i>Nerodia sipedon insularum</i>	Lake Erie Watersnake	-	E	T in Ohio
<i>Regina septemvittata</i>	Queen Snake	-	T	-
<i>Sistrurus catenatus catenatus</i>	Eastern Massasauga	SC	T	Candidate
<i>Sternotherus odoratus</i>	Stinkpot	-	T	-
<i>Thamnophis butleri</i>	Butler's Gartersnake	-	T	-
<i>Thamnophis sauritus</i>	Eastern Ribbonsnake	-	SC	-

## Mammals

Listed mammal species in Wayne county of Michigan and in the Province of Ontario by the Michigan Natural Features Inventory, the United States Fish and Wildlife Services, and the Committee on the Status of Endangered Wildlife in Canada of the Ontario Ministry of Natural Resources. SC = Species of Special Concern, T = threatened, and E = endangered, (-) = not listed.

Scientific Name	Common Name	Michigan State Status	Ontario Status	U.S Status
<i>Canis lupus lycaon</i>	Eastern Gray Wolf	T	SC	T
<i>Glaucomys volans</i>	Southern Flying Squirrel	-	SC	-
<i>Microtus pinetorum</i>	Woodland vole	SC	SC	-
<i>Myotis sodalis</i>	Indiana Bat	E	-	E
<i>Scalopus aquaticus</i>	Eastern mole	-	SC	-
<i>Taxidea taxus jacksoni</i>	American Badger	-	E	-
<i>Urocyon cinereoargenteus</i>	Grey Fox	-	T	-

## MEETING MINUTES

**Meeting Date:** October 2, 2006      **Date Issued:** October 23, 2006  
**Location:** DIBC Offices, Warren, MI  
**Project Name:** Ambassador Bridge Enhancement Project  
**Purpose:** Bird study  
**Notes by:** Terry Yonker, Scott Korpi      **American Project #:** 5049964  
**Copies to:** File, Dan Stamper, Craig Stamper, Anna Peterfreund,

<u>Attendees</u>	<u>Representing</u>	<u>Phone</u>	<u>Fax or e-mail</u>
Todd Hogrefe	MDNR		
Karen Carpenter	MDNR		
Ray Rustem	MDNR		
Terry Yonker	Marine Services Diversified, LLC		<a href="mailto:terryyonker@cs.com">terryyonker@cs.com</a>
Scott Korpi	American Consulting Engineers of Florida, LLC	813-996-2800	<a href="mailto:skorpi@ace-fla.com">skorpi@ace-fla.com</a>

The following notes reflect our understanding of the discussions and decisions made at this meeting. If you have any questions, additions or comments, please contact us at the above address. We will consider the minutes to be accurate unless written notice is received within 10 working days of the date issued.

The meeting was convened by Scott Korpi. The purpose of the meeting was to explore with the Michigan Department of Natural Resources areas of concern with regard to birds and bird migration in the vicinity of the proposed Ambassador Bridge Enhancement Project. Secondly the meeting was held to determine what studies, if any, would be warranted where impacts from the project were likely to occur.

For the benefit of MDNR personnel who had not had the opportunity to read it, Mr. Korpi reviewed the information contained in the Project Description and Categorical Exclusion Environmental Documentation submitted by the Detroit International Bridge Company (DIBC) and Canadian Transit Company to the Canadian Environmental Assessment Agency and the United States Coast Guard. Mr. Korpi described the project which consists of a six-lane cable stayed bridge to be constructed between two existing plazas adjacent to the existing Ambassador Bridge. The span would not require in-water construction. The height of the proposed cable-stayed bridge towers is 544 feet or 181 feet taller than the 363 foot twin towers of the existing Ambassador suspension bridge.

Mr. Korpi indicated that the only concerns raised about the impact of the proposed bridge on resident and migratory birds were raised by the U.S. Coast Guard in early correspondence with the DIBC. Mr. Rustem noted the importance of the Detroit River for migrating waterfowl, but felt most waterfowl

would avoid the bridge or fly under it. Mr. Yonker referenced two reports about waterfowl migration on the Niagara River which showed few waterfowl flew under bridges and that substantial movements of waterfowl occurred after dark. Mr. Rustem also noted that the Natural Heritage Unit's original focus was on possible impacts of the proposed bridge on endangered mussels in the Detroit River. It was noted that the proposed bridge towers would be constructed on land rather than in the water. Mr. Hogrefe expressed concern about possible collisions with the bridge by neotropical migrants after dark and referenced the Avian Collision Study for the Michigan Public Safety Communications System which showed higher collision rates with communication towers that were guyed and lighted with steady burning incandescent red lights. The size and configuration of the cable stays was also discussed as a possible collision risk. Ms. Cleveland said there were not a lot of concerns about collisions between neotropical migrants (including endangered, threatened or species of concern) and the proposed bridge. Mr. Yonker noted that up to 25% of birds observed at night by radar at the site of the proposed Ambassador Bridge on the Niagara River flew below 200 meters (~650 feet) above ground level.

In conclusion the MDNR expressed interest in pursuing information about waterfowl migration on the Detroit River, especially at night. Mr. Rustem suggested that Mr. Ernie Kafcas, a waterfowl specialist from the MDNR Mt. Clemens office, would be an important contact on waterfowl migration. Mr. Rustem also expressed interest in reviewing the Niagara River Crossing Project Avian Study (Mr. Korpi said he would make that study available once it was cleared for release as a part of the project Draft Environmental Impact Statement). Concern was expressed about avian risks associated with proposed bridge lighting, the height of the bridge, and the size and configuration of cables stays.



STATE OF MICHIGAN



JENNIFER M. GRANHOLM  
GOVERNOR

DEPARTMENT OF NATURAL RESOURCES  
LANSING

REBECCA A. HUMPHRIES  
DIRECTOR

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AMERICAN CONSULTING ENGINEERS  
OF FLORIDA, LLC

March 1, 2007

Mr. Scott Korpi, PE SE  
American Consulting Engineers of Florida, LLC  
4111 Land O'Lakes Blvd., Suite 210  
Land O'Lakes, FL 34639

Dear Mr. Korpi:

Information received regarding the impacts of the proposed Ambassador Bridge Enhancement in Wayne County (section 19, T2S R12E), has been reviewed. The information was found

  X   to adequately address the concerns for potential threatened and endangered species at the site in question.

       not adequately address the concerns for potential threatened and endangered species at the site in question.

Based on the provided information,

  X   The proposed project should have no direct impacts on known special natural features at the location(s) specified if it proceeds according to the plans provided. Please contact me for an evaluation if the project plans are changed.

       The following special features may occur on the site(s) and should be avoided and protected from harm from all activities associated with the project and in perpetuity from any future activities on the property.

NATURAL RESOURCES COMMISSION  
Keith J. Charters, Chair • Mary Brown • Hurley J. Coleman, Jr. • Darnell Earley • John Madigan • J. R. Richardson • Frank Wheatlake

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X An endangered species permit is required if activities will harm the species that are present, including transplanting them to another location.

\_\_\_\_\_ The project may proceed with recommendations listed below. You are advised to minimize or eliminate impacts on endangered and threatened species and to report observations to this office.

\_\_\_\_\_ Other recommendations:

Thank you for your cooperation in addressing the protection of Michigan's Natural Resource Heritage. If you have further questions I can be reached at 517-373-9418.

Sincerely,



Lori G. Sargent  
Endangered Species Specialist  
Wildlife Division  
[SargentL@michigan.gov](mailto:SargentL@michigan.gov)

cc: Mr. Craig Czarnecki, US Fish & Wildlife Service  
Mr. Walter Gauthier, US Army Corps of Engineers  
Planning Division, Michigan Department of Transportation



UNITED STATES DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
NATIONAL MARINE FISHERIES SERVICE  
NORTHEAST REGION  
One Blackburn Drive  
Gloucester, MA 01930-2298

Scott Korpi  
American Consulting Engineers of Florida, LLC  
4111 Land O'Lakes Boulevard, Suite 210  
Land O'Lakes, Florida 34639

JUL - 1 2008

Re: Ambassador Bridge Enhancement Project

Dear Mr. Korpi,

This responds to your letter dated June 17, 2008 requesting information on the presence of listed species in the vicinity of the Ambassador Bridge Enhancement Project. The project is located on the Detroit River between Detroit, Michigan and Windsor, Ontario, Canada.

While several species listed by NOAA's National Marine Fisheries Service (NMFS) occur in New York waters, no listed species are known to occur in the Detroit River. As such, NMFS Protected Resources Division does not intend to offer additional comments on this proposal. Should project plans change or new information become available that changes the basis for this determination, further coordination should be pursued. If you have any questions regarding these comments, please contact Julie Crocker at (978)281-9300 x6530. Your request for information regarding Essential Fish Habitat will be addressed by NMFS' Habitat Conservation Division under separate cover.

Sincerely,

Mary A. Colligan  
Assistant Regional Administrator  
for Protected Resources

File Code: Sec 7 No Species Present 2008

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JUL 09 2008  
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OF FLORIDA, LLC

