

# **Attachment 13**

## **Threatened and Endangered Species Review**



# Missouri Department of Conservation Natural Heritage Review Report

February 22, 2016 -- Page 1 of 2

Resource Science Division  
P. O. Box 180  
Jefferson City, MO 65102  
Prepared by: Brittne Brauner  
Brittne.Brauner@mdc.mo.gov  
(573) 522 - 4115 ext. 3182

DAVID GRIMES  
SEMO REGIONAL PLANNING  
COMMISSION  
1 WEST SAINT JOSEPH STREET  
P.O. BOX 366  
PERRYVILLE, MO 63775

Project type:	LAND DEVELOPMENT
Location/Scope:	LANDGRANT 2969
County:	ST. FRANCOIS
Query reference:	FARMINGTON INDUSTRIAL PARK SITE
Query received:	1/19/2015

**This NATURAL HERITAGE REVIEW is not a site clearance letter. Rather, it identifies public lands and sensitive resources known to have been located close to and/or potentially affected by the proposed project.** On-site verification is the responsibility of the project. Natural Heritage records were identified at some date and location. This report considers records near but not necessarily at the project site. Animals move and, over time, so do plant communities. To say "there is a record" does not mean the species/habitat is still there. To say that "there is no record" does not mean a protected species will not be encountered. These records only provide one reference and other information (e.g. wetland or soils maps, on-site inspections or surveys) should be considered. Look for additional information about the biological and habitat needs of records listed in order to avoid or minimize impacts. More information is at <http://mdc.mo.gov/discover-nature/places-go/natural-areas> and [mdc4.mdc.mo.gov/applications/mofwis/mofwis\\_search1.aspx](http://mdc4.mdc.mo.gov/applications/mofwis/mofwis_search1.aspx).

## Level 3 issues: Records of federal-listed (these are also state-listed) species or critical habitats near the project site:

Natural Heritage records identify no wildlife preserves, no designated wilderness areas or critical habitats, and no federal-listed species records within the project area, or in the public land survey section listed above or sections adjacent.

FEDERAL LIST species/habitats are protected under the Federal Endangered Species Act. Contact the U.S. Fish and Wildlife Service (101 Park Deville Drive Suite A, Columbia, Missouri 65203-0007; 573-234-2132) for Endangered Species Act coordination and concurrence information.

## Level 2 issues: Records of state-listed (not federal-listed) endangered species AND / OR state-ranked (not state-listed endangered) species and natural communities of conservation concern. The Department tracks these species and natural communities due to population declines and/or apparent vulnerability.

Natural Heritage records identify no state-listed endangered species within the project area.

Natural Heritage records identify no state-ranked species and/or natural communities within the project area.

See <http://mdc.mo.gov/sites/default/files/resources/2010/04/2015speciesconcern.pdf> for a complete list of species and communities of conservation concern.

STATE ENDANGERED species are listed in and protected under the Wildlife Code of Missouri (3CSR10-4.111).

## General recommendations related to this project or site, or based on information about the historic range of species (unrelated to any specific Natural Heritage records):

- Indiana bats (*Myotis sodalis*, federal and state-listed endangered) and Northern long-eared bats (*Myotis septentrionalis*, federal-listed threatened) hibernate during winter months in caves and mines. During the summer months, they roost and raise young under the bark of trees in riparian forests and upland forests near perennial streams. During project activities, avoid degrading stream quality and where possible leave snags standing and preserve mature forest canopy. Do not enter caves known to harbor Indiana bats, especially from September to April. **If any trees need to be removed by your project, please contact the U.S. Fish and Wildlife Service (Ecological Services, 101 Park Deville Drive, Suite A, Columbia, Missouri 65203-0007; Phone 573-234-2132) for further coordination.**



- Gray bats (*Myotis grisescens*, federal and state-listed endangered) could occur in the project area, as they forage over streams, rivers, and reservoirs. Avoid entry or disturbance of any cave inhabited by gray bats and when possible retain forest vegetation along the stream and from the gray bat cave opening to the stream. See <http://mdc.mo.gov/104> for best management recommendations.
- St. Francois County has known karst geologic features (e.g. caves, springs, and sinkholes, all characterized by subterranean water movement). Few karst features are recorded in Natural Heritage records, and ones not noted here may be encountered at the project site or affected by the project. Cave fauna (many of which are species of conservation concern) are influenced by changes to water quality, so check your project site for any karst features and make every effort to protect groundwater in the project area.
- Construction should be managed to minimize erosion and sedimentation/runoff to nearby streams and lakes, including adherence to any "Clean Water Permit" conditions. Project design should include stormwater management elements that assure storm discharge rates to streams for heavy rain events will not increase from present levels. Revegetate disturbed areas to minimize erosion using native plant species compatible with the local landscape and wildlife needs. Annual ryegrass may be combined with native perennials for quicker green-up. Avoid aggressive exotic perennials such as crownvetch and sericea lespedeza.
- Invasive exotic species are a significant issue for fish, wildlife and agriculture in Missouri. Seeds, eggs, and larvae may be moved to new sites on boats or construction equipment, so inspect and clean equipment thoroughly before moving between project sites.
  - ◆ Remove any mud, soil, trash, plants or animals from equipment before leaving any water body or work area.
  - ◆ Drain water from boats and machinery that have operated in water, checking motor cavities, live-well, bilge and transom wells, tracks, buckets, and any other water reservoirs.
  - ◆ When possible, wash and rinse equipment thoroughly with hard spray or HOT water ( $\geq 140^{\circ}$  F, typically available at do-it-yourself carwash sites), and dry in the hot sun before using again.

*These recommendations are ones project managers might prudently consider based on a general understanding of species needs and landscape conditions. Natural Heritage records largely reflect sites visited by specialists in the last 30 years. Many privately owned tracts have not been surveyed and could host remnants of species once but no longer common.*

# Missouri

## Federally-Listed Threatened, Endangered and Candidate Species County Distribution

Revised April 2015

Species	Status	Habitat	Current Distribution
<b>Birds</b>			
Least Tern (interior population) ( <i>Sterna antillarum</i> )	Endangered	Riverine sandbars	Andrew, Atchison, Boone, Buchanan, Callaway, Cape Girardeau, Carroll, Chariton, Clark, Clay, Cole, Cooper, Franklin, Gasconade, Holt, Howard, Jackson, Jefferson, Lafayette, Lewis, Lincoln, Marion, Mississippi, Moniteau, Platte, Ralls, Ray, Saline, Scott, St. Charles, Ste. Genevieve, St. Louis, Stoddard, Warren
Piping plover ( <i>Charadrius melodus</i> ) Northern Great Plains Breeding Population	Threatened	Riverine sandbars	Andrew, Atchison, Boone, Buchanan, Callaway, Cape Girardeau, Carroll, Chariton, Clark, Clay, Cole, Cooper, Franklin, Gasconade, Holt, Howard, Jackson, Jefferson, Lafayette, Lewis, Lincoln, Marion, Mississippi, Moniteau, Platte, Ralls, Ray, Saline, Scott, St. Charles, Ste. Genevieve, St. Louis, Stoddard, Warren
Rufa Red knot ( <i>Calidris canutus rufa</i> )	Threatened	Shorebird that migrates through Missouri - irregularly observed feeding on mudflats, sandbars, shallowly flooded areas and pond margins along the Missouri and Mississippi Rivers from May 1 through September 30.	Andrew, Atchison, Boone, Buchanan, Callaway, Cape Girardeau, Carroll, Chariton, Clark, Clay, Cole, Cooper, Franklin, Gasconade, Holt, Howard, Jackson, Jefferson, Lafayette, Lewis, Lincoln, Marion, Mississippi, Moniteau, Platte, Ralls, Ray, Saline, Scott, St. Charles, Ste. Genevieve, St. Louis, Stoddard, Warren
<b>Mammals</b>			
Gray bat ( <i>Myotis grisescens</i> )	Endangered	Caves	Barry, Benton, Boone, Callaway, Camden, Carter, Cedar, Christian, Cole, Crawford, Dade, Dallas, Dent, Douglass, Franklin, Gasconade, Greene, Henry, Hickory, Howard, Howell, Iron, Jasper, Jefferson, Laclede, Lawrence, Madison, Maries, McDonald, Miller, Morgan, Newton, Oregon, Osage, Ozark, Phelps, Pike, Pulaski, Ralls, Reynolds, Ripley, St. Clair, St. Louis, Shannon, Stone, Taney, Texas, Washington, Wayne, Wright
Indiana bat ( <i>Myotis sodalis</i> )	Endangered	Hibernacula = Caves and mines; Maternity and foraging habitat = small stream corridors with well developed riparian woods; upland forests	All counties in Missouri
Indiana Bat	Critical Habitat Designated		Crawford, Franklin, Iron, Shannon, Washington
Northern long-eared bat <i>Myotis septentrionalis</i>	Threatened	Statewide	Hibernates in caves and mines - swarming in surrounding wooded areas in autumn. Roosts and forages in upland forests during spring and summer.



Species	Status	Habitat	Current Distribution
Ozark big-eared bat ( <i>Plecotus townsendii ingens</i> )	Endangered	Caves in limestone karst regions dominated by mature hardwood forest	Barry, Stone
<b>Amphibian</b>			
Ozark hellbender ( <i>Cryptobranchus alleganiensis bishopi</i> )	Endangered	Rivers	Carter, Dent, Douglas, Howell, Oregon, Ozark, Ripley, Shannon, Texas, Wright
<b>Fish</b>			
Arkansas darter ( <i>Etheostoma cragini</i> )	Candidate	Rivers	Barry, Barton, Jasper, Newton, Dade, Lawrence
Grotto sculpin ( <i>Cottus specus</i> )	Endangered	Cave streams	Perry
Neosho madtom ( <i>Noturus placidus</i> )	Threatened	Rivers	Jasper
Niangua darter ( <i>Etheostoma nianguae</i> )	Threatened	Rivers	Benton, Camden, Cedar, Dallas, Greene, Hickory, Maries, Miller, Osage, St. Clair, Webster
Niangua darter ( <i>Etheostoma nianguae</i> )	Critical Habitat		Camden, Cedar, Dallas, Greene, Hickory, Miller, St. Clair
Ozark cavefish ( <i>Amblyopsis rosae</i> )	Threatened	Caves in the Boone and Burlington limestone formations of the Ozark Mountains	Barry, Greene, Jasper, Lawrence, Newton, Stone
Pallid sturgeon ( <i>Scaphirhynchus albus</i> )	Endangered	Mississippi and Missouri Rivers	Andrew, Atchison, Boone, Buchanan, Callaway, Cape Girardeau, Carroll, Chariton, Clay, Cole, Cooper, Franklin, Gasconade, Holt, Howard, Jackson, Jefferson, Lafayette, Lewis, Livingston, Mississippi, Moniteau, Montgomery, New Madrid, Osage, Pemiscot, Perry, Platte, Ray, St. Charles, St. Genevieve, St. Louis, Saline, Scott, Warren
Topeka shiner ( <i>Notropis topeka</i> )	Endangered	Small prairie (or former prairie) streams in pools containing clear, clean water. Most Topeka shiner streams are perennial (flow year-round), but some are small enough to stop flowing during dry summer months. In these circumstances, water levels must be maintained by groundwater seepage for the fish to survive. Topeka shiner streams generally have clean gravel, rock, or sand bottoms.	Boone, Caldwell, Callaway, Clark, Cole, Cooper, Daviess, Dekalb, Grundy, Harrison, Mercer, Moniteau, Morgan, Pettis, Putnam, Randolph, Ray, Schuyler
<b>Insects</b>			
Hine's emerald dragonfly ( <i>Somatochlora hineana</i> )	Endangered	Streams and associated wetlands overlying dolomite bedrock	Dent, Iron, Phelps, Reynolds, Ripley, St. Francis
Hine's emerald dragonfly ( <i>Somatochlora hineana</i> )	Critical Habitat	Maps and written descriptions of Hine's Critical Habitat in Missouri: from Federal Register (PDF)  <b>Note:</b> first page includes map of Michigan.	Dent, Iron, Phelps, Reynolds, Ripley,  <b>Note:</b> Critical habitat was designated in error in the following counties: Crawford, Washington, Wayne. S7 consultation for the Hine's emerald dragonfly in these counties is not necessary.



Species	Status	Habitat	Current Distribution
<b>Mussels</b>			
Curtis' pearlymussel ( <i>Epioblasma forentina curtisi</i> )	Endangered	Little Black River	Bollinger, Butler, Ripley, Wayne
Fat pocketbook ( <i>Potamilus capax</i> )	Endangered	Rivers	Clark, Dunklin, Marion, Mississippi, Pike, Ralls
Higgins eye pearlymussel ( <i>Lampsilis higginsii</i> )	Endangered	Mississippi River	Marion
Neosho mucket ( <i>Lampsilis rafinesqueana</i> )	Endangered	Rivers	Barry, Barton, Jasper, Lawrence, McDonald, and Newton
Neosho mucket ( <i>Lampsilis rafinesqueana</i> )	Critical Habitat	Elk River, Spring River, North Fork Spring River, Shoal Creek	Jasper, Lawrence, McDonald, and Newton
Pink mucket ( <i>Lampsilis abrupta</i> )	Endangered	Rivers	Butler, Cedar, Cole, Franklin, Gasconade, Jefferson, Maries, Miller, Osage, Ripley, St. Clair, St. Louis, Wayne
Rabbitsfoot ( <i>Quadrula cylindrica cylindrica</i> )	Threatened	Rivers	Butler, Jasper, Madison Newton, Wayne
Rabbitsfoot ( <i>Quadrula cylindrica cylindrica</i> )	Critical Habitat	Big Sunflower, Big Black, Black, Lower Mississippi, Spring, and White Rivers	Jasper, Madison and Wayne
Scaleshell ( <i>Leptodea leptodon</i> )	Endangered	Big, Big Piney, Bourbeuse, Gasconade, and Meramec Rivers	Crawford, Franklin, Gasconade, Jefferson, Laclede, Maries, Osage, Pulaski, St. Louis, Wright
Sheepnose ( <i>Plethobasus cyphus</i> )	Endangered	Bourbeuse, Gasconade (Osage Fork), Meramec, and Mississippi Rivers	Crawford, Franklin, Jefferson, Laclede, Lewis, Marion, Pike, Ralls, St. Louis
Snuffbox ( <i>Epioblasma triquetra</i> )	Endangered	Small to medium-sized creeks with a swift current	Bollinger, Franklin, Gasconade, Jefferson, Phelps, Ripley, St. Louis, Wayne
Spectaclecase ( <i>Cumberlandia monodonta</i> )	Endangered	Big, Big Piney, Bourbeuse, Gasconade, Meramec, and Mississippi Rivers	Cedar, Cole, Crawford, Franklin, Gasconade, Jefferson, Laclede, Maries, Marion, Miller, Osage, Phelps, Pulaski, Ralls, St. Clair, St. Louis, Texas, Washington
Winged mapleleaf ( <i>Quadrula frugosa</i> )	Endangered	Medium to large rivers in mud, sand, or gravel	Franklin
<b>Snail</b>			
Tumbling Creek cave snail ( <i>Antrobia culveri</i> )	Endangered and Critical Habitat	Cave stream	Taney
<b>Crustacean</b>			
cave crayfish, no common name ( <i>Cambarus aculabrum</i> )	Endangered	Cave	McDonald
<b>Plants</b>			
Eastern prairie fringed orchid ( <i>Platanthera leucophaea</i> )	Threatened	Mesic to wet prairies and meadows	Carter, Grundy, Ralls
Decurrent false aster ( <i>Boltonia decurrens</i> )	Threatened	Disturbed alluvial soils	Cape Girardeau, Dunklin, Franklin, Howell, Lincoln, Mississippi, Pike, St. Charles, St. Louis



Species	Status	Habitat	Current Distribution
Geocarpon ( <i>Geocarpon minimum</i> )	Threatened	Moist soils in exposed sandstone glades	Cedar, Dade, Greene, Henry, Jasper, Lawrence, Polk, St. Clair
Mead's milkweed ( <i>Asclepias meadii</i> )	Threatened	Virgin prairies	Adair, Barton, Benton, Cass, Cedar, Dade, Harrison, Henry, Iron, Johnson, Pettis, Polk, Reynolds, St. Clair, St. Louis, Scotland, Sullivan, Vernon
Missouri bladderpod ( <i>Physaria filiformis</i> )	Threatened	Open glades in shallow limestone soils	Christian, Dade, Greene, Lawrence
Pondberry ( <i>Lindera milissifolium</i> )	Endangered	Bottomland hardwood forest	Butler, Ripley
Running buffalo clover ( <i>Trifolium stoloniferum</i> )	Endangered	Disturbed bottomland meadows	Barry, Benton, Boone, Callaway, Carter, Cedar, Christian, Cole, Cooper, Crawford, Dade, Dent, Dunklin, Howard, Jasper, Laclede, Lincoln, Madison, Maries, Moniteau, Montgomery, Ozark, Phelps, St. Charles, St. Louis, Taney, Texas, Vernon, Wayne
Virginia sneezeweed ( <i>Helenium virginicum</i> )	Threatened	Sinkhole ponds under stressed conditions (i.e., variable hydroperiod, low pH soils, high levels of aluminum and arsenic, low levels of macronutrients and boron)	Christian, Dent, Howell, Oregon, Shannon, Texas, Webster, Wright
Western prairie fringed orchid ( <i>Platanthera praeclara</i> )	Threatened	Wet prairies & sedge meadows	Atchison, Greene, Harrison, Holt, Jackson, Jasper, Johnson, Lawrence, Vernon



## Missouri Department of Conservation

Missouri Department of Conservation's Mission is to protect and manage the forest, fish, and wildlife resources of the state and to facilitate and provide opportunities for all citizens to use, enjoy and learn about these resources.

### **Natural Heritage Review Level Two Report: State Listed Endangered Species and/or Missouri Species/Natural Communities of Conservation Concern**

There are records for state-listed Endangered Species, or Missouri Species or Natural Communities of Conservation Concern within or near the defined Project Area. Please contact Missouri Department of Conservation for further coordination.

**Foreword:** Thank you for accessing the Missouri Natural Heritage Review Website developed by the Missouri Department of Conservation with assistance from the U.S. Fish and Wildlife Service, the U.S. Army Corps of Engineers, Missouri Department of Transportation and NatureServe. The purpose of this website is to provide information to federal, state and local agencies, organizations, municipalities, corporations and consultants regarding sensitive fish, wildlife, plants, natural communities and habitats to assist in planning, designing and permitting stages of projects.

#### **PROJECT INFORMATION**

**Project Name and ID Number:** Farmington Industrial Park Site Certification #331

**Project Description:** Farmington Industrial Park Site Certification

**Project Type:** Residential, Commercial and Governmental Building Development

**Contact Person:** David Grimes

**Contact Information:** dgrimes@semorpc.org or 5735478357



**Disclaimer:** The NATURAL HERITAGE REVIEW REPORT produced by this website identifies if a species tracked by the Natural Heritage Program is known to occur within or near the area submitted for your project, and shares suggested recommendations on ways to avoid or minimize project impacts to sensitive species or special habitats. If an occurrence record is present, or the proposed project might affect federally listed species, the user must contact the Department of Conservation or U.S. Fish and Wildlife Service for more information. The Natural Heritage Program tracks occurrences of sensitive species and natural communities where the species or natural community has been found. Lack of an occurrence record does not mean that a sensitive plant, animal or natural community is not present on or near the project area. Depending on the project, current habitat conditions, and geographic location in the state, surveys may be necessary. Additionally, because land use conditions change and animals move, the existence of an occurrence record does not mean the species/habitat is still present. Therefore, Reports include information about records near but not necessarily on the project site.

The Natural Heritage Report is not a site clearance letter for the project. It provides an indication of whether or not public lands and sensitive resources are known to be (or are likely to be) located close to the proposed project. Incorporating information from the Natural Heritage Program into project plans is an important step that can help reduce unnecessary impacts to Missouri's sensitive fish, forest and wildlife resources. However, the Natural Heritage Program is only one reference that should be used to evaluate potential adverse project impacts. Other types of information, such as wetland and soils maps and on-site inspections or surveys, should be considered. Reviewing current landscape and habitat information, and species' biological characteristics would additionally ensure that Missouri Species of Conservation Concern are appropriately identified and addressed in planning efforts.

**U.S. Fish and Wildlife Service – Endangered Species Act (ESA) Coordination:** Lack of a Natural Heritage Program occurrence record for federally listed species in your project area does not mean the species is not present, as the area may never have been surveyed. Presence of a Natural Heritage Program occurrence record does not mean the project will result in negative impacts. The information within this report is not intended to replace Endangered Species Act consultation with the U.S. Fish and Wildlife Service (USFWS) for listed species. Direct contact with the USFWS may be necessary to complete consultation and it is required for actions with a federal connection, such as federal funding or a federal permit; direct contact is also required if ESA concurrence is necessary. Visit the USFWS Information for Planning and Conservation (IPaC) website at <https://ecos.fws.gov/ipac/> for further information. This site was developed to help streamline the USFWS environmental review process and is a first step in ESA coordination. The Columbia Missouri Ecological Field Services Office may be reached at 573-234-2132, or by mail at 101 Park Deville Drive, Suite A, Columbia, MO 65203.

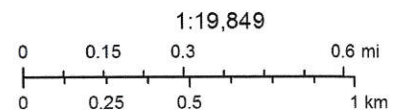
**Transportation Projects:** If the project involves the use of Federal Highway Administration transportation funds, these recommendations may not fulfill all contract requirements. Please contact the Missouri Department of Transportation at 573-526-4778 or [www.modot.mo.gov/ehp/index.htm](http://www.modot.mo.gov/ehp/index.htm) for additional information on recommendations.

# Farmington Industrial Park Site Certification



January 19, 2016

- Project Boundary
- Buffered Project Boundary



Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community



## Species or Communities of Conservation Concern within the Area:

There are records for state-listed Endangered Species, or Missouri Species or Natural Communities of Conservation Concern within or near the defined Project Area. Please contact the Missouri Department of Conservation for further coordination.

MDC Natural Heritage Review  
Resource Science Division  
P.O. Box 180  
Jefferson City, MO  
65102-0180  
Phone: 573-522-4115 ext. 3182  
[NaturalHeritageReview@mdc.mo.gov](mailto:NaturalHeritageReview@mdc.mo.gov)

## Other Special Search Results:

The project occurs on public land, FARMINGTON (GIESSING LAKE), FARMINGTON (HAGER LAKE), FARMINGTON (THOMAS LAKE), please contact MDC.

## Project Type Recommendations:

**New construction, maintenance and remodeling, including government, commercial and residential buildings and other structures.** Fish, forest, and wildlife impacts can be avoided by siting projects in locations that have already been disturbed or previously developed, where and when feasible, and by avoiding alteration of areas providing existing habitat, such as wetlands, streams, forest, native grassland, etc. The project should be managed to minimize erosion and sedimentation/runoff to nearby wetlands, streams and lakes, including adherence to any "Clean Water Act Permit" conditions. Project design should include stormwater management elements that assure storm discharge rates to streams for heavy rain events will not increase from present levels. Revegetate areas in which the natural cover is disturbed to minimize erosion using native plant species compatible with the local landscape and wildlife needs. Annual ryegrass may be combined with native perennials for quicker green-up. Avoid aggressive exotic perennials such as crownvetch and sericea lespedeza. Pollutants, including sediment, can have significant impacts far downstream. Use silt fences and/or vegetative filter strips to buffer streams and drainages, and monitor the site after rain events and until a well-rooted ground cover is reestablished.

## Project Location and/or Species Recommendations:

**Endangered Species Act Coordination - Indiana bats (*Myotis sodalis*, federal- and state-listed endangered) and Northern long-eared bats (*Myotis septentrionalis*, federal-listed threatened)** hibernate during winter months in caves and mines. During the summer months, they roost and raise young under the bark of trees in wooded areas, often riparian forests and upland forests near perennial streams. During project activities, avoid degrading stream quality and where possible leave snags standing and preserve mature forest canopy. Do not enter caves known to harbor Indiana bats, especially from September to April. **If any trees need to be removed for your project, please contact the U.S. Fish and Wildlife Service (Ecological Services, 101 Park Deville Drive, Suite A, Columbia, Missouri 65203-0007; Phone 573-234-2132) for further coordination.**

The project location submitted and evaluated is within the range of the Gray Myotis (i.e., Gray Bat) in Missouri. Depending on habitat conditions of your project's location, Gray Myotis (*Myotis grisescens*, federal and state-listed endangered) could occur within the project area, as they forage over streams, rivers, lakes, and reservoirs. Avoid entry or disturbance of any cave inhabited by Gray Myotis and when possible retain forest vegetation along the stream and from the cave opening to the stream. See <http://mdc.mo.gov/104> for best management recommendations.

**Invasive exotic species** are a significant issue for fish, wildlife and agriculture in Missouri. Seeds, eggs, and larvae may be moved to new sites on boats or construction equipment. Please inspect and clean equipment thoroughly before moving between project sites. See <http://mdc.mo.gov/9633> for more information.

- Remove any mud, soil, trash, plants or animals from equipment before leaving any water body or work area.
- Drain water from boats and machinery that have operated in water, checking motor cavities, live-well, bilge and transom wells, tracks, buckets, and any other water reservoirs.
- When possible, wash and rinse equipment thoroughly with hard spray or HOT water (?140° F, typically available at do-it-yourself car wash sites), and dry in the hot sun before using again.

**Streams and Wetlands – Clean Water Act Permits:** Streams and wetlands in the project area should be protected from activities that degrade habitat conditions. For example, soil erosion, water pollution, placement of fill, dredging, in-stream activities, and riparian corridor removal, can modify or diminish aquatic habitats. Streams and wetlands may be protected under the Clean Water Act and require a permit for any activities that result in fill or other modifications to the site. Conditions provided within the U.S. Army Corps of Engineers (USACE) Clean Water Act Section 404 permit (<http://www.nwk.usace.army.mil/Missions/RegulatoryBranch.aspx>) and the Missouri Department of Natural Resources (DNR) issued Clean Water Act Section 401 Water Quality Certification (<http://dnr.mo.gov/env/wpp/401/index.html>), if required, should help minimize impacts to the aquatic organisms and aquatic habitat within the area. Depending on your project type, additional permits may be required by the Missouri Department of Natural Resources, such as permits for stormwater, wastewater treatment facilities, and confined animal feeding operations. Visit <http://dnr.mo.gov/env/wpp/permits/index.html> for more information on DNR permits. Visit both the USACE and DNR for more information on Clean Water Act permitting.

For further coordination with the Missouri Department of Conservation and the U.S. Fish and Wildlife Services, please see the contact information below.

MDC Natural Heritage Review  
Resource Science Division  
P.O. Box 180  
Jefferson City, MO  
65102-0180  
Phone: 573-522-4115 ext. 3182  
[NaturalHeritageReview@mdc.mo.gov](mailto:NaturalHeritageReview@mdc.mo.gov)

U.S. Fish and Wildlife Service  
Ecological Service  
101 Park Deville Drive  
Suite A  
Columbia, MO  
65203-0007  
Phone: 573-234-2132

### Miscellaneous Information

**FEDERAL** Concerns are species/habitats protected under the Federal Endangered Species Act and that have been known near enough to the project site to warrant consideration. For these, project managers must contact the U.S. Fish and Wildlife Service Ecological Services (101 Park Deville Drive Suite A, Columbia, Missouri 65203-0007; Phone 573-234-2132; Fax 573-234-2181) for consultation.

**STATE** Concerns are species/habitats known to exist near enough to the project site to warrant concern and that are protected under the Wildlife Code of Missouri (RSMo 3 CSR 1 0). "State Endangered Status" is determined by the Missouri Conservation Commission under constitutional authority, with requirements expressed in the Missouri Wildlife Code, rule 3CSR 1 0-4.111. Species tracked by the Natural Heritage Program have a "State Rank" which is a numeric rank of relative rarity. Species tracked by this program and all native Missouri wildlife are protected under rule 3CSR 10-4.110 General Provisions of the Wildlife Code.

Additional information on Missouri's sensitive species may be found at <http://mdc.mo.gov/discover-nature/field-guide/endangered-species>. Detailed information about the animals and some plants mentioned may be accessed at [http://mdc4.mdc.mo.gov/applications/mofwis/mofwis\\_search1.aspx](http://mdc4.mdc.mo.gov/applications/mofwis/mofwis_search1.aspx). If you would like printed copies of best management practices cited as internet URLs, please contact the Missouri Department of Conservation.



## David Grimes

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**From:** David Grimes  
**Sent:** Tuesday, January 19, 2016 11:25 AM  
**To:** Brittne Brauner  
**Cc:** David Grimes  
**Subject:** RE: Query on Threatened and Endangered Species

Brittne:

As a follow on – This is a site that is currently being row cropped. It is within the designated Farmington Industrial Park. When I checked the federal threatened, endangered and candidate species list I got:

The Indiana Bat – All counties in Missouri

Hine's Emerald Dragonfly – Streams and associated wetlands overlying dolomite bedrock (and there are no wetlands on the site)

And that's it.

Please tell me I can get clearance based on this information.

Thanks,

Dave

David Grimes  
Deputy Director  
Southeast Missouri Regional Planning Commission  
1 West Saint Joseph Street  
P.O. Box 366  
Perryville, MO 63775  
[dgrimes@semorpc.org](mailto:dgrimes@semorpc.org)  
(573)547-8357

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**From:** Brittne Brauner [mailto:[Brittne.Brauner@mdc.mo.gov](mailto:Brittne.Brauner@mdc.mo.gov)]  
**Sent:** Tuesday, January 19, 2016 9:49 AM  
**To:** 'David Grimes'  
**Subject:** RE: Query on Threatened and Endangered Species

Hi Dave,

Please use the Missouri Natural Heritage Review website (<https://naturalheritagereview.mdc.mo.gov/>) to query for records of Species and Natural Communities of Conservation Concern, public conservation lands, and other sensitive forest, fish and wildlife resources that could be affected by construction and development projects.

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resources including Endangered Species Act species, may be necessary depending on the project, its location and construction practices. Please visit the U.S. Fish and Wildlife Website – Information for Planning and Conservation at <https://ecos.fws.gov/ipac/> for additional information or contact the USFWS.

If a Level Two response is received, records of state-listed Species and Natural Communities of Conservation Concern occur within or near the project area. Please contact the Missouri Department of Conservation for further coordination and information. In addition, further coordination and consultation with the U.S. Fish and Wildlife Service for USFWS trust resources including Endangered Species Act species, may be necessary depending on the project, its location and construction practices. Please visit the U.S. Fish and Wildlife Website – Information for Planning and Conservation at <https://ecos.fws.gov/ipac/> for additional information or contact the USFWS.

If a Level Three response is received, records of federal, and possibly also state-listed Species and Natural Communities of Conservation Concern occur within or near the project area. Please contact the Missouri Department of Conservation for further coordination and information. In addition, further coordination and consultation with the U.S. Fish and Wildlife Service for USFWS trust resources including Endangered Species Act species, is necessary. Please visit the U.S. Fish and Wildlife Website – Information for Planning and Conservation at <https://ecos.fws.gov/ipac/> for additional information or contact the USFWS.

Please include the following items when submitting your Natural Heritage Review request to the Missouri Department of Conservation or the U.S. Fish and Wildlife Service:

- Township, Range & Section or Latitude and Longitude of project location
- Aerial map of project location
- A description of project activities; for example, replacement of a concrete low water crossing with a 30 foot long span bridge, and submit project designs.
- ArcGIS data layers or .kmz files with the project's location will help expedite reviews of most projects.

The request may be submitted to the Missouri Department of Conservation by postal mail or electronic mail at the following addresses.

Attn: Natural Heritage Review Coordinator  
Resource Science Division  
Missouri Department of Conservation  
2901 West Truman Blvd.  
P.O. Box 180  
Jefferson City, MO 65102  
[NaturalHeritageReview@mdc.mo.gov](mailto:NaturalHeritageReview@mdc.mo.gov)  
573-522-4115 ex 3182

Staff of the U.S. Fish and Wildlife Service may be contacted by phone at 573-234-2132, or through postal mail at:  
U.S. Fish and Wildlife Service  
Ecological Services  
101 Park Deville Drive, Suite A  
Columbia, Missouri 65203-0007

If you have questions, please give me a call.

Thank you,

Brittnie Brauner



Environmental Review Coordinator  
Missouri Department of Conservation  
573-522-4115 ex 3182  
[Brittnie.Brauner@mdc.mo.gov](mailto:Brittnie.Brauner@mdc.mo.gov)

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**From:** David Grimes [<mailto:dgrimes@semorpc.org>]  
**Sent:** Tuesday, January 19, 2016 9:39 AM  
**To:** Brittnie Brauner  
**Cc:** David Grimes  
**Subject:** FW: Query on Threatened and Endangered Species

Brittnie.

Do you need anything else on this?

Thanks,

Dave

David Grimes  
Deputy Director  
Southeast Missouri Regional Planning Commission  
1 West Saint Joseph Street  
P.O. Box 366  
Perryville, MO 63775  
[dgrimes@semorpc.org](mailto:dgrimes@semorpc.org)  
(573)547-8357

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**From:** Bruce Henry [<mailto:Bruce.Henry@mdc.mo.gov>]  
**Sent:** Wednesday, January 13, 2016 5:43 PM  
**To:** David Grimes  
**Cc:** Brittnie Brauner  
**Subject:** RE: Query on Threatened and Endangered Species

Dave,

Thank you for your request of a Heritage Review. Brittnie Brauner, our Environmental Review Coordinator, is in charge of all Heritage Review requests that are not on MDC lands or private lands supported by MDC land management advisors. I cc'd her to this email for ease of communication. She is currently out of the office until next Monday, but I am certain that she will be able to assist you with your request when she returns.

Thanks,

**Bruce Henry**  
**Natural History Biologist**  
**Southeast Region**  
Missouri Department of Conservation  
2302 County Park Drive  
Cape Girardeau, MO 63701

Phone: 573-290-5858 ext. 4423

Mobile: 309-945-5618

Fax: 573-290-5736

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**From:** David Grimes [<mailto:dgrimes@semorpc.org>]  
**Sent:** Wednesday, January 13, 2016 11:38 AM  
**To:** Bruce Henry  
**Cc:** David Grimes  
**Subject:** FW: Query on Threatened and Endangered Species

Bruce:

As a follow on here is what I have so far - -

The U.S. Fish and Wildlife service lists some 43 species as threatened or endangered within the State of Missouri. Of these only the Indiana Bat and Hines Emerald Dragonfly are listed in St. Francois County. The Indiana Bat is listed for every county in Missouri. Hine's Emerald Dragonfly is listed for St. Francois County among a total of six counties. The habitat is identified as "Streams and associated wetlands overlying dolomite bedrock." As noted above at 3.4 there are no streams or wetlands on the site proposed for certification.

I do not believe there is any potential impact from industrial development on the site which is now being row cropped.

I'm attaching some information that should help.

Thanks,

Dave

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**From:** David Grimes [<mailto:dgrimes@semorpc.org>]  
**Sent:** Wednesday, January 13, 2016 11:22 AM  
**To:** [bruce.henry@mdc.mo.gov](mailto:bruce.henry@mdc.mo.gov)  
**Cc:** David Grimes  
**Subject:** Query on Threatened and Endangered Species

Bruce:

I'm working on a project for the City of Farmington to get a new site at their Industrial Park certified under the Missouri Certified Sites Program.

The question I'm looking at now is:

### **3.6 Threatened or Endangered Species Review**

3.6.1 Provide a copy of documentation submitted to the U.S. Fish & Wildlife Service / Missouri Department of Conservation and a copy of the response identifying both the presence and species of state and federal threatened and endangered species within the boundary of the parcel, or absence thereof.

3.6.2 If threatened and endangered species are identified by governing agencies, species identification and delineation needs to be completed by a qualified biologist and reviewed by the appropriate authority to determine any development restrictions or mitigation measures. Please provide documentation, if applicable.



Can you help me with this?

Thanks,

Dave

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Southeast Missouri Regional Planning Commission  
1 West Saint Joseph Street  
P.O. Box 366  
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## David Grimes

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**From:** David Grimes  
**Sent:** Tuesday, January 19, 2016 11:22 AM  
**To:** Brittne Brauner  
**Cc:** David Grimes  
**Subject:** RE: Query on Threatened and Endangered Species  
**Attachments:** DOC Endangered Species Report.pdf

Brittne:

Okay, I'm attaching what I got.

Now what?

Dave

---

**From:** Brittne Brauner [mailto:[Brittne.Brauner@mdc.mo.gov](mailto:Brittne.Brauner@mdc.mo.gov)]  
**Sent:** Tuesday, January 19, 2016 9:49 AM  
**To:** 'David Grimes'  
**Subject:** RE: Query on Threatened and Endangered Species

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