RESPONSES TO
U.S. DEPARTMENT OF ENERGY
LETTERS TO STATE AGENCIES
AND NATIVE AMERICAN GROUPS

United States Department of the Interior

FISH AND WILDLIFE SERVICE

Ecological Services
6950 Americana Parkway, Suite H
Reynoldsburg, Ohio 43068-4127

September 23, 2002

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AMESQ

Log No._____

Date Received OCT 9 2002

File Code_____

James L. Elmore, Ph.D.
Department of Energy
Oak Ridge Operations Office
P.O. Box 2001
Oak Ridge, TN 37831

Dear Dr. Elmore:

This responds to your letter of July 12, 2002 regarding Federally listed endangered or threatened species that may occur in the vicinity of the Portsmouth Gaseous Diffusion Plant (PORTS) located in Pike County, Ohio.

ENDANGERED SPECIES COMMENTS:

The proposed project lies within the range of the Indiana bat (*Myotis sodalis*), a Federally listed endangered species. Summer habitat requirements for the Indiana bat are not well defined, but the following are thought to be of importance:
1. Dead trees and snags (especially those with exfoliating bark), split tree trunk and/or branches, or cavities which may be used as maternity roosts;
2. Live trees (such as shagbark hickory) which have exfoliating bark;
3. Stream corridors, riparian areas, and upland woodlots which provide forage sites.

We recommend that if potential bat roost trees with the above characteristics are encountered in the project area, they should be saved wherever possible. If they must be cut, they should not be cut between April 15 and September 15.

If desirable trees are present and if the above time restriction is unacceptable, mist net or other surveys should be conducted to determine if bats are present. Any survey should be designed and conducted in coordination with the endangered species coordinator for this office, Ms. Angela Boyer (614-469-6923 ext. 22). The survey should be conducted in June or July, the period when peak bat populations could be expected.

The project lies within the range of the timber rattlesnake, a large shy rattlesnake that is declining throughout its national range. No Federal listing status has been assigned to this species. Instead, the U.S. Fish and Wildlife Service has initiated a pre-listing Conservation Action Plan to support state and local conservation efforts. Your proactive

efforts to conserve this species now may help avoid the need to list the species under the Endangered Species Act in the future. The timber rattlesnake is protected throughout much of its range and listed as endangered by the State of Ohio. Due to their rarity and reclusive nature, we encourage early project coordination to avoid potential impacts to timber rattlesnakes and their habitat.

In Ohio, the timber rattlesnake is restricted to the un-glaciated Allegheny Plateau and utilizes the specific habitat types, depending upon season. Winters are spent in dens usually associated with high, dry ridges. These dens may face any direction, but southeast to southwest are most common. Such dens usually consist of narrow crevices in the bedrock. Rocks may or may not be present on the surface. From these dens, timber rattlesnakes radiate throughout the surrounding hills and move distances as great as 4.5 miles. In the fall, timber rattlesnakes return to the same den. Intensive efforts to transplant timber rattlesnakes have not been successful. Thus protection of the winter dens is critical to the survival of this species. Some project management ideas include the following:

1) At a minimum, project evaluations should contain delineations of timber rattlesnake habitat within project boundaries. Descriptions should indicate the quality and quantity of timber rattlesnake habitat (den sites, basking sites, and foraging area, etc.) that may be affected by the project.

2) In cases where timber rattlesnakes are known to occur or where potential habitat is rated moderate to high, timber rattlesnake surveys may be necessary. If surveys are to be conducted, it may be helpful to inquire about timber rattlesnake sightings with local resource agency personnel or reliable local residents. In addition, local herpetologists may have knowledge of historical populations as well as precise knowledge of the habits, and the specific local types of habitats that may contain timber rattlesnakes. Surveys should be performed during the periods of spring emergence from dens (usually a short period in April or May) and throughout the active season until October. The species is often easiest to locate during the summer months when pregnant females seek open areas in early morning, especially after cool evenings.

3) In portions of projects where timber rattlesnakes will be affected, clearing and construction activities should occur at distances greater than 100 feet from known dens. Most importantly, tops of ridges and areas of exposed rock should be avoided.

4) In areas where timber rattlesnake dens are known or likely to exist, maintenance activities (mowing, cutting, burning, etc.) should be conducted from November 1 to March 1, when timber rattlesnakes are hibernating.

Two divisions of the Ohio Department of Natural Resources, the Division of Wildlife (614-265-6300) and the Division of Natural Areas and Preserves (614-265-6472), maintain lists of plants and animals of concern to the State of Ohio. If you have not already done so, you may wish to contact each of these agencies to obtain site-specific information about species of state concern.

If you have questions or we may be of further assistance in this matter please contact Mr. Bill Kurey of this office at 614-469-6923 ext. 14.

Sincerely,

Mary Knapp

Mary Knapp, Ph.D.
Supervisor

cc: R. Sanders, ODOW

FISH & WILDLIFE COMMISSION
Mike Boatwright, Paducah
Tom Baker, Bowling Green
Allen K. Gailor, Louisville
Ron Southall, Elizabethtown
Dr. James R. Rich, Taylor Mill, Chairman
Ben Frank Brown, Richmond
Doug Hensley, Hazard
Dr. Robert C. Webb, Grayson
David H.Godby, Somerset

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF FISH AND WILDLIFE RESOURCES
C. THOMAS BENNETT, COMMISSIONER

July 26, 2002

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Date Received AUG 2 2002
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Mr. James L. Elmore
Department of Energy
Oak Ridge Operations Office
P.O. Box 2001
Oak Ridge, TN 37831

RE: Environmental Impact Statement Converting DUF6
Stored at Paducah Gaseous Diffusion Plant,
McCracken County, Kentucky

Dear Mr. Elmore:

I have reviewed the information provided on the above-referenced project. Accordingly, I offer the following comments and recommendations.

A review of the Kentucky Fish and Wildlife Information System indicates that several federal and/or state threatened and/or endangered species are known to occur within McCracken County that could be impacted by the project. That species list is attached. Please be aware that our database system is a dynamic one that only represents our current knowledge of the various species distributions. This information may also be obtained on the worldwide web at: www.kfwis.state.ky.us.

I would recommend that a habitat survey be conducted at the site of the proposed project and if any habitat that might harbor any of these species exists, then a specific survey for that species should be conducted. The results of those surveys will dictate if any additional surveys or analysis need to be conducted.

I appreciate the opportunity to comment.

Sincerely,

Wayne L. Davis
Environmental Section Chief

cc: Environmental Section Files

EDUCATION PAYS

1 of 1

Alosa alabamae	Alabama shad	Osteichthyes	MCCRACKEN	C	E	Reference
Atractosteus spatula	alligator gar	Osteichthyes	MCCRACKEN		E	Reference
Cyprinella camura	bluntface shiner	Osteichthyes	MCCRACKEN		E	Reference
Hybognathus hayi	cypress minnow	Osteichthyes	MCCRACKEN		E	Reference
Myotis sodalis	Indiana myotis	Mammalia	MCCRACKEN	LE	E	Reference
Obovaria retusa	ring pink	Bivalvia	MCCRACKEN	LE	E	Reference
Notropis maculatus	taillight shiner	Osteichthyes	MCCRACKEN		T	Reference
Nyctanassa violacea	yellow-crowned night-heron	Aves	MCCRACKEN		T	Reference

United States Department of the Interior

FISH AND WILDLIFE SERVICE
446 Neal Street
Cookeville, TN 38501

September 18, 2002

Mr. James L. Elmore, Ph.D.
U.S. Department of Energy
Oak Ridge Operations Office
P.O. Box 2001
Oak Ridge, Tennessee 37831

Dear Dr. Elmore:

Thank you for your letter and enclosures received July 23, 2002, regarding the preparation of an Environmental Impact Statement (EIS) for the proposed construction and operation of a facility to convert DUF6 to a more stable chemical form at the Paducah Gaseous Diffusion Plant (PGDP) in McCracken County, Kentucky. The referenced maps of the PGDP and proposed facility locations were not included in your letter. U.S. Fish and Wildlife Service personnel have reviewed the information submitted and offer the following comments for consideration.

According to our records, the following federally listed endangered species may occur on or near the PGDP:

Indiana bat *Myotis sodalis*

A qualified biologist should assess potential impacts and determine if the proposed project may affect the species. We recommend that you submit a copy of your assessment and the draft EIS to this office for review and concurrence. A finding of "may affect" could require the initiation of formal consultation procedures.

These constitute the comments of the U.S. Department of the Interior in accordance with provisions of the Endangered Species Act (87 Stat. 884, as amended: 16 U.S.C. 1531 et seq.). We appreciate the opportunity to comment. Should you have any questions or need further assistance, please contact Steve Alexander of my staff at 931/528-6481, ext. 210, or via e-mail at *steven_alexander@fws.gov*.

Sincerely,

for Lee A. Barclay, Ph.D.
Field Supervisor

xc: Wayne Davis, KDFWR, Frankfort
Laila Lienesch, FWS, Frankfort

DONALD S. DOTT, JR.
DIRECTOR

PAUL E. PATTON
GOVERNOR

COMMONWEALTH OF KENTUCKY
KENTUCKY STATE NATURE PRESERVES COMMISSION
801 SCHENKEL LANE
FRANKFORT, KENTUCKY 40601-1403
(502) 573-2886 VOICE
(502) 573-2355 FAX

August 12, 2002

James L. Elmore, Ph.D.
Department of Energy
Oak Ridge Operations Office
P.O. Box 2001
Oak Ridge, TN 37831-2001

Dear Dr. Elmore:

This letter is in response to your data request of July 12, 2002 for State-Listed species information in the vicinity of the Paducah Gaseous Diffusion Plant DUF6 Conversion facility project. We have reviewed our Natural Heritage Program Database to determine if any of the endangered, threatened, or special concern plants and animals or exemplary natural communities monitored by the Kentucky State Nature Preserves Commission occur in the area. Based on our most current information, we have determined that 68 occurrences of the plants or animals and one occurrence of the exemplary natural communities that are monitored by KSNPC are reported as occurring in the specified area. Please see the attached report for more information. I have included a separate report of the species known from McCracken County, Kentucky as well.

Data and data products received from the Kentucky State Nature Preserves Commission, including any portion thereof, may not be reproduced in any form or by any means without the express written authorization of the Kentucky State Nature Preserves Commission. The exact location of plants, animals, and natural communities, if released by the Kentucky State Nature Preserves Commission, may not be released in any document or correspondence. These products are provided on a temporary basis for the express project (described above) of the requester, and may not be redistributed, resold or copied without the written permission of the Kentucky State Nature Preserves Commission's Data Manager (801 Schenkel Lane, Frankfort, KY, 40601. Phone: (502) 573-2886).

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EDUCATION PAYS

AN EQUAL OPPORTUNITY EMPLOYER M/F/D

Please note that the quantity and quality of data collected by the Kentucky Natural Heritage Program are dependent on the research and observations of many individuals and organizations. In most cases, this information is not the result of comprehensive or site-specific field surveys; many natural areas in Kentucky have never been thoroughly surveyed, and new plants and animals are still being discovered. For these reasons, the Kentucky Natural Heritage Program cannot provide a definitive statement on the presence, absence, or condition of biological elements in any part of Kentucky. Heritage reports summarize the existing information known to the Kentucky Natural Heritage Program at the time of the request regarding the biological elements or locations in question. They should never be regarded as final statements on the elements or areas being considered, nor should they be substituted for on-site surveys required for environmental assessments. We would greatly appreciate receiving any pertinent information obtained as a result of on-site surveys.

If you have any questions or if I can be of further assistance, please do not hesitate to contact me.

Sincerely,

Sara Hines

Sara Hines
Data Manager

Enclosures: Data Report and Interpretation Key, McCracken County List
Endangered, Threatened, and Special Concern Plants and Animals of Kentucky
Plants and Animals Presumed Extinct or Extirpated from Kentucky
Monitored Natural Communities of Kentucky

Data Key for Element and Occurrence Reports (v. 3.98)
Kentucky State Nature Preserves Commission
Natural Heritage Program Data Services

Many of the data fields on the enclosed report are easily understood. Other fields, however, use abbreviations and formats that are not always self-explanatory. A key to these fields follows. Your report may contain some or all of the following data fields.

BEARING:	Bearing in degrees from a center point to an occurrence's latitude and longitude. This field is masked for sensitive occurrences; contact KSNPC in these cases. Omitted for G, U, and Q precision occurrence records.
BESTSOURCE:	Best available reference to the occurrence: literature citation, collector, collection number, museum or herbarium code, etc.
COMMENTS:	Additional information about the occurrence including identification, taxonomy, or date of occurrence.
DIRECTIONS:	Directions to an occurrence. This field is masked for sensitive occurrences; contact KSNPC in these cases.
DISTANCE:	Distance from a center point to an occurrence's latitude and longitude. Units coded as M (miles), K (kilometers), and F (feet). This field is masked for sensitive occurrences; contact KSNPC in these cases. Omitted for G, U, and Q precision occurrence records.
ELCODE:	Element (species) code.
EOCODE:	Element (species) code, occurrence number (last three digits), and state.
EODATA:	Occurrence population data: date of observation, number of individuals, health, size of colony, flowering data, etc.
EORANK:	Judgement of occurrence quality: A = excellent, B = good, C = marginal, D = poor, E = verified extant but quality not judged, O = obscure (not found at reported site but more searching needed), H = historically known from site but no known observation or collection since 1975, X = extirpated from site.
FIRSTOBS:	Year of first known observation or collection.
GENDESC:	Description of an occurrence's habitat.
GRANK:	Estimate of element abundance on a global scale: G1 = extremely rare, G2 = rare, G3 = uncommon, G4 = common, G5 = very common, GH = historically known and expected to be rediscovered, GU = uncertain, GX = extinct. Subspecies and variety abundances are coded with a 'T' suffix; the 'G' portion of the rank then refers to the entire species.
HABITAT:	General description of the element's habitat across its range.
IDENT:	Whether the identification has been checked by a reliable individual and is believed to be correctly identified: Y = identification confirmed and believed correct, N = No, identification determined to be wrong despite reports to the contrary, ? = Whether identification is correct or not is confusing or disputed, blank or U = unknown whether identification correct or not, assumed correct.
KSNPC:	Kentucky State Nature Preserves Commission status: N or blank = none, E = endangered, T = threatened, S = special concern, H = historic, X = extirpated.
LASTOBS:	Year(-month-date) of most recent known observation or collection.
LAT:	Latitude. This field is masked for sensitive occurrences; contact KSNPC in these cases. Omitted for G, U and Q precision occurrences.
LONG:	Longitude. This field is masked for sensitive occurrences; contact KSNPC in these cases. Omitted for G, U and Q precision occurrences.
MAP NUMBER:	Number used to location the element on KSNPC Heritage maps.
MARGNUM:	See MAP NUMBER.
PREC:	See PRECISION.

Rare Species And Communities Recorded for the Proposed DUF6 Conversion Facility at the Paducah Gaseous Diffusion Plant.

KSNPC
Data Request No. 03-022

EOCODE	SNAME	SCOMNAME	GRANK	SRANK	SPROT	USESA	IDENT	LASTOBS	PREC	EORANK	COUNTY	7.5 MINUTE QUADRANGLE	EPA WATERBODY	DIRECTIONS	HABITAT
***Vascular Plants															
PDFAB0G041*013*KY	BAPTISIA BRACTEATA VAR LEUCOPHAEA	CREAM WILD INDIGO	G4G5T4T5	S3	S		Y	1997-05-11	S	C	McCracken	HEATH		WEST KY WMA, RD AROUND NUCLEAR PLANT (DYKE RD).	PRAIRIES AND OPEN WOODS ON SANDY SOIL.
PDJUG01010*002*KY	CARYA AQUATICA	WATER HICKORY	G5	S2S3	T			1997-	M	D	McCracken	JOPPA		METROPOLIS LAKE.	BOTTOMLANDS AND FLOODPLAIN SWAMPS.
PDSTY01030*021*KY	HALESIA TETRAPTERA	MOUNTAIN SILVER-BELL	G5	S1S2	E		Y	2001-04-13	S	B	McCracken	JOPPA		METROPOLIS LAKE SNP; SW END OF METROPOLIS LAKE, CA 0.3 AIR MI E OF POWERPLANT LOCATED OFF OF KY 996.	RICH WOODS AND EDGES OF SLOUGHS AND OXBOW LAKES.
PDSTY01030*015*KY	HALESIA TETRAPTERA	MOUNTAIN SILVER-BELL	G5	S1S2	E		Y	1991-06-20	S	A	McCracken	JOPPA		CIRCA 1.0 AIR MI WNW OF N CORNER OF SETTLING PONDS FOR SHAWNEE STEAM PLANT ALONG RIDGE ABOVE OHIO RIVER.	RICH WOODS AND EDGES OF SLOUGHS AND OXBOW LAKES.
PDAST6C040*001*KY	MELANTHERA NIVEA	SNOW MELANTHERA	G5	S37	S		Y	2001-07-23	S	B/A	McCracken	JOPPA		METROPOLIS LAKE, OFF KY 996, W OF PADUCAH.	FLOODPLAINS AND SANDY WOODS INCLUDING DISTURBED OPENINGS.
PMPOA480S0*005*KY	MUHLENBERGIA GLABRIFLORIS	HAIR GRASS	G4?	S2S3	S			1977-09-21	M	H	McCracken	JOPPA		ALONG METROPOLIS FERRY ROAD, OFF OF KY 1420.	DRY, DESSICCATED OR BAKED SOILS, PRAIRIES, GRAVELS, OR ROCKY SLOPES AND MEDLEY REPORTS WET WOODS, MARSH EDGES AND FIELDS.
PDAST8L082*015*KY	SILPHIUM LACINIATUM VAR ROBINSONII	COMPASS PLANT	G5T?	S2	T		Y	1993-07	S	B	McCracken	HEATH		725 BETWEEN KY 726 AND KY 1154 (MARGNUM 34, 370505N, 884838W), (MARGNUM 35, 370513N, 884859W), (MARGNUM 36, 370521N, 884906W), (MARGNUM 37, 370515N, 884908W), (MARGNUM 38, 370517N, 884916W); JCT OF MAGRUDER RD	PRAIRIES INCL. REMNANTS OF THIS FLORA ON ROADSIDES AND FIELDS.
PDAST8L082*025*KY	SILPHIUM LACINIATUM VAR ROBINSONII	COMPASS PLANT	G5T?	S2	T			1993-07	S	C	McCracken	HEATH		WEST KENTUCKY WILDLIFE MANAGEMENT AREA BETWEEN SPRING BAYOU (BAYOU CREEK) AND ACID RD, CA 0.5 AIR MI NNW OF SPRING BAYOU CHURCH.	PRAIRIES INCL. REMNANTS OF THIS FLORA ON ROADSIDES AND FIELDS.
PDAST8L082*016*KY	SILPHIUM LACINIATUM VAR ROBINSONII	COMPASS PLANT	G5T?	S2	T		Y	1993-07	S	A	McCracken	HEATH		BOTH SIDES OF UNNAMED GRAVEL RD, CA 0.1 AIR MI S OF SOUTH ACID RD (MARGNUM 23), (MARGNUM 32, 370610N, 884935W), (MARGNUM 40, 370553N, 884949W), (MARGNUM 41, 370548N, 884952W), (MARGNUM 42, 370546N, 884945W),	PRAIRIES INCL. REMNANTS OF THIS FLORA ON ROADSIDES AND FIELDS.
***Gastropod															
IMGASK5100*009*KY	LEPTOXIS PRAEROSA	ONYX ROCKSNAIL	G5	S3S4	S		Y	1980-10-18	S	H	McCracken	JOPPA		OHIO RIVER AT MILE 948.0, LITTLE CHAIN BAR.	CALL (1895) INDICATED THAT IN THE OHIO RIVER AT THE FALLS IT OCCURRED IN THE GREATEST PROFUSION WHERE THE BOTTOM IS CLEAN ROCK OR ROCK WITH ABUNDANT "CONFERVOID" VEGETATION.
IMGASK6100*023*KY	LITHASIA VERRUCOSA	VARICOSE ROCKSNAIL	G3G4	S3S4	S		Y	1980-10-08	S	H	McCracken	JOPPA		OHIO RIVER AT MILE 948.0, LITTLE CHAIN BAR.	OBSERVATIONS ON THE HABITAT INCLUDE SPECIMENS TAKEN FROM RECENTLY EXPOSED BARS AND POOLS WITH SAND, GRAVEL, AND ROCK SUBSTRATES (HAAG AND PALMER-BALL, PERS COMM).

Rare Species And Communities Recorded for the Proposed DUF6 Conversion Facility at the Paducah Gaseous Diffusion Plant.

KSNPC
Data Request No. 03-022

EOCODE	SNAME	SCOMNAME	GRANK	SRANK	SPROT	USESA	DENT	LASTOBS	PREC	EORANK	COUNTY	7.5 MINUTE QUADRANGLE	EPA WATERBODY	DIRECTIONS	HABITAT
***Bivalves															
IMBIV21110*054*KY	LAMPSILIS ABRUPTA	PINK MUCKET	G2	S1	E	LE	Y	2001-08-31	S	D	McCracken	JOPPA		OHIO RIVER MILE 948.4, CA 120 M FROM KY SHORE.	APPARENTLY MORE COMMONLY FROM GRAVEL AND COBBLE. COLLECTED FROM SHALLOW AND DEEP WATER WITH CURRENT VELOCITY RANGING FROM ZERO TO SWIFT (AHLSTEDT 1983, BOGAN AND PARMALEE 1983, BUCHANAN 1980), BUT NEVER STANDING POOLS OF WATER (LAURITSEN PARMALEE 1967, STANSBERY 1976), BUT OCCURS IN MEDIUM-SIZED STREAMS IN GRAVEL, SAND, OR EVEN MUD (PARMALEE 1967, JOHNSON 1970, GORDON AND LAYZER 1989). IN THE LOWER WABASH AND OHIO RIVERS SPECIMENS WERE TAKEN IN DEEP WATER (5-10 FEET OR MORE) IN CURRENT FROM SAND
IMBIV21130*079*KY	LAMPSILIS OVATA	POCKETBOOK	G5	S1	E			1954-06-30	G	H	McCracken	JOPPA		OHIO RIVER BETWEEN METROPOLIS AND JOPPA (PLOTTED AT MIDPOINT).	
IMBIV34020*032*KY	PLETHOBASUS COOPERIANUS	ORANGEFOOT PIMPLEBACK	G1	S1	E	LE	Y	1907-08-18	G	H	McCracken	BANDANA		OHIO RIVER AT HILLERMAN, IL.	USUALLY FOUND IN LARGE RIVERS IN SAND AND GRAVEL SUBSTRATES (AHLSTEDT 1983, BOGAN AND PARMALEE 1983, MILLER, A.C. ET AL. 1986).
IMBIV34020*053*KY	PLETHOBASUS COOPERIANUS	ORANGEFOOT PIMPLEBACK	G1	S1	E	LE	Y	1999-09-07	S	D	McCracken	JOPPA		OHIO R AT LITTLE CHAIN BAR CA R MI 948.	USUALLY FOUND IN LARGE RIVERS IN SAND AND GRAVEL SUBSTRATES (AHLSTEDT 1983, BOGAN AND PARMALEE 1983, MILLER, A.C. ET AL. 1986).
IMBIV34020*056*KY	PLETHOBASUS COOPERIANUS	ORANGEFOOT PIMPLEBACK	G1	S1	E	LE	Y	2001-08-31	S	D	McCracken	JOPPA		OHIO RIVER MILE 948.4, CA 120 M FROM KY SHORE.	USUALLY FOUND IN LARGE RIVERS IN SAND AND GRAVEL SUBSTRATES (AHLSTEDT 1983, BOGAN AND PARMALEE 1983, MILLER, A.C. ET AL. 1986).
IMBIV34030*090*KY	PLETHOBASUS CYPHYUS	SHEEPNOSE	G3	S3	S		Y	1954-06-30	G	H	McCracken	JOPPA		OHIO RIVER BETWEEN METROPOLIS AND JOPPA (PLOTTED AT MIDPOINT).	USUALLY FOUND IN LARGE RIVERS IN CURRENT ON MUD, SAND, OR GRAVEL BOTTOMS AT DEPTH OF 1-2 METERS OR MORE (BAKER 1928, PARMALEE 1967, GORDON AND LAYZER 1989).
IMBIV34030*087*KY	PLETHOBASUS CYPHYUS	SHEEPNOSE	G3	S3	S		Y	1955-05-17	G	H	McCracken	JOPPA		OHIO RIVER AT JOPPA.	USUALLY FOUND IN LARGE RIVERS IN CURRENT ON MUD, SAND, OR GRAVEL BOTTOMS AT DEPTH OF 1-2 METERS OR MORE (BAKER 1928, PARMALEE 1967, GORDON AND LAYZER 1989).
IMBIV34030*065*KY	PLETHOBASUS CYPHYUS	SHEEPNOSE	G3	S3	S		Y	1907-08-18	G	H	McCracken	BANDANA		OHIO RIVER AT HILLERMAN, IL.	USUALLY FOUND IN LARGE RIVERS IN CURRENT ON MUD, SAND, OR GRAVEL BOTTOMS AT DEPTH OF 1-2 METERS OR MORE (BAKER 1928, PARMALEE 1967, GORDON AND LAYZER 1989).
IMBIV34030*125*KY	PLETHOBASUS CYPHYUS	SHEEPNOSE	G3	S3	S		Y	1999-08	S	D	McCracken	JOPPA		OHIO RIVER AT LITTLE CHAIN BAR, CA MI 948.	USUALLY FOUND IN LARGE RIVERS IN CURRENT ON MUD, SAND, OR GRAVEL BOTTOMS AT DEPTH OF 1-2 METERS OR MORE (BAKER 1928, PARMALEE 1967, GORDON AND LAYZER 1989).
IMBIV37030*001*KY	POTAMILUS CAPAX	FAT POCKETBOOK	G1	S1	E	LE	Y	1907-08	G	H	McCracken	BANDANA		OHIO R, AT HILLERMAN, MASSAC CO., ILL.	BACK CHANNELS, AND SOMETIMES IN DITCHES, IN MUD (OOZE); MIXED SAND, MUD, AND CLAY; OR FINE SILT AND MUD IN FLOWING WATER AT DEPTHS OF A FEW INCHES UP TO EIGHT FEET (PARMALEE 1967, AHLSTEDT AND JENKINSON 1987, CUMMINGS AND MAYER 1993, CUMMINGS ET AL. 1990).
IMBIV37030*029*KY	POTAMILUS CAPAX	FAT POCKETBOOK	G1	S1	E	LE	Y	1999-09-07	S	D	McCracken	JOPPA		OHIO RIVER AT CA R MI 945.6; BAR AT POWERLINE CROSSING.	BACK CHANNELS, AND SOMETIMES IN DITCHES, IN MUD (OOZE); MIXED SAND, MUD, AND CLAY; OR FINE SILT AND MUD IN FLOWING WATER AT DEPTHS OF A FEW INCHES UP TO EIGHT FEET (PARMALEE 1967, AHLSTEDT AND JENKINSON 1987, CUMMINGS AND MAYER 1993, CUMMINGS ET AL. 1990).
IMBIV39041*041*KY	QUADRULA CYLINDRICA CYLINDRICA	RABBITSFOOT	G3T3	S2	T		Y	1907-08-18	G	H	McCracken	BANDANA		OHIO RIVER AT HILLERMAN, IL.	SMALL TO LARGE RIVERS WITH SAND, GRAVEL, AND COBBLE AND MODERATE TO SWIFT CURRENT, SOMETIMES IN DEEP WATER (PARMALEE 1967, BOGAN AND PARMALEE 1983).

Rare Species And Communities Recorded for the Proposed DUF6 Conversion Facility at the Paducah Gaseous Diffusion Plant.

KSNPC
Data Request No. 03-022

EOCODE	SNAME	SCOMNAME	GRANK	SRANK	SPROT	USESA	IDENT	LASTOBS	PREC	EORANK	COUNTY	7.5 MINUTE QUADRANGLE	EPA WATERBODY	DIRECTIONS	HABITAT
IMBIV39041*030*KY	QUADRULA CYLINDRICA CYLINDRICA	RABBITSFOOT	G3T3	S2	T		Y	1987-05-21	S	O	McCracken	JOPPA		OHIO RIVER, ORM 945, AT END OF ROAD THAT PASSES E SIDE OF METROPOLIS LAKE, 10 MI WNW OF PADUCAH.	SMALL TO LARGE RIVERS WITH SAND, GRAVEL, AND COBBLE AND MODERATE TO SWIFT CURRENT, SOMETIMES IN DEEP WATER (PARMALEE 1967, BOGAN AND PARMALEE 1983).
***Crustaceans															
ICMAL11060*004*KY	ORCONECTES LANCIFER	A CRAYFISH	G5	S1	E		Y	1975-04-26	S	H	McCracken	JOPPA		METROPOLIS LAKE 4.8 KM N GRAHAMVILLE NEAR END OF HWY 305 (ACTUALLY END OF HWY 996 AND DRIVEWAY TO LAKE).	OXBOW LAKES AND STREAMS ON THE GULF COASTAL PLAIN (PAGE 1985), WHERE IT LIVES AMONG ORGANIC DEBRIS, USUALLY NEAR BALD CYPRESS (BURR AND HOBBS 1984).
***Fishes															
AFCBA02010*002*KY	ATRACTOSTEUS SPATULA	ALLIGATOR GAR	G3G4	S1	E			1975-06-27	G	H	McCracken	JOPPA		OHIO RIVER AT SHAWNEE STEAM PLANT, NEAR PADUCAH.	SLUGGISH POOLS AND BACKWATERS OF LARGE RIVERS, BACKWATERS, AND OXBOW LAKES (BURR AND WARREN 1986, PAGE AND BURR 1991, ETNIER AND STARNES 1993).
AFCJC05020*006*KY	ERIMYZON SUCETTA	LAKE CHUBSUCKER	G5	S2	T		Y		G	H	McCracken	JOPPA		OHIO RIVER, SHAWNEE STEAM PLANT W OF PADUCAH.	LOWLAND LENTIC HABITATS (WETLANDS AND FLOODPLAIN LAKES) WITH SUBMERGENT AND FLOATING VEGETATION (BURR AND WARREN 1986, ETNIER AND STARNES 1993).
AFCHD01040*003*KY	ESOX NIGER	CHAIN PICKEREL	G5	S3	S			1972-05-28	M	E	McCracken	JOPPA		METROPOLIS LAKE, 4.8 KM N GRAHAMVILLE.	COASTAL PLAIN WETLANDS, STREAMS, AND VEGETATED OXBOW LAKE SHORELINES, AND IT ALSO TOLERATES RESERVOIR CONDITIONS (BURR AND WARREN 1986, ETNIER AND STARNES 1993).
AFCJB16030*004*KY	HYBOGNATHUS HAYI	CYPRESS MINNOW	G5	S1	E		Y	1993-07-21	S	D	McCracken	JOPPA		METROPOLIS LAKE, 3 MI N GRAHAMVILLE.	COASTAL PLAIN AND SHAWNEE HILLS. USUALLY OVER MUD OR SAND BOTTOMS, BUT OCCASIONALLY ASSOCIATED WITH SUBMERGED AQUATIC VEGETATION OR OTHER COVER (BURR AND WARREN 1986, PFLIEGER 1975, SMITH 1979, GILBERT 1980, BURR ET AL. 1980). NEEDS WETLANDS ADJACENT
AFBAA01020*006*KY	ICHTHYOMYZON CASTANEUS	CHESTNUT LAMPREY	G4	S2	S			1951-	G	H	McCracken	JOPPA		OHIO RIVER AT JOPPA, ILLINOIS.	CONSISTS OF GRAVEL AND RUBBLE WITH AREAS OF SAND AND SILT. LARVAE REQUIRE CLEAR STREAMS WITH STABLE BARS OF SILT, SAND AND ORGANIC DETRITIS (BECKER 1983, PFLIEGER 1975, ROHDE AND LANTEIGNE-COURCHERE 1980, SCOTT AND CROSSMAN 1973, SMITH 1979).
AFBAA01020*007*KY	ICHTHYOMYZON CASTANEUS	CHESTNUT LAMPREY	G4	S2	S			1951-	G	H	McCracken	METROPOLIS		OHIO RIVER AT METROPOLIS, ILLINOIS.	CONSISTS OF GRAVEL AND RUBBLE WITH AREAS OF SAND AND SILT. LARVAE REQUIRE CLEAR STREAMS WITH STABLE BARS OF SILT, SAND AND ORGANIC DETRITIS (BECKER 1983, PFLIEGER 1975, ROHDE AND LANTEIGNE-COURCHERE 1980, SCOTT AND CROSSMAN 1973, SMITH 1979).
AFBAA01020*010*KY	ICHTHYOMYZON CASTANEUS	CHESTNUT LAMPREY	G4	S2	S			1974-04-17	G	E	McCracken	JOPPA		OHIO RIVER, AT SHAWNEE STEAM PLANT.	CONSISTS OF GRAVEL AND RUBBLE WITH AREAS OF SAND AND SILT. LARVAE REQUIRE CLEAR STREAMS WITH STABLE BARS OF SILT, SAND AND ORGANIC DETRITIS (BECKER 1983, PFLIEGER 1975, ROHDE AND LANTEIGNE-COURCHERE 1980, SCOTT AND CROSSMAN 1973, SMITH 1979).
AFCJC07030*016*KY	ICTIOBUS NIGER	BLACK BUFFALO	G5	S3	S		Y	1997-09-30	M	C	McCracken	JOPPA		OHIO RIVER, SHAWNEE STEAM PLANT, NW OF PADUCAH.	RESERVOIRS AND MEDIUM TO LARGE RIVERS WITH MODERATE TO LOW GRADIENT AND SOMETIME SWIFT CURRENT (BECKER 1983, PFLIEGER 1975, SMITH 1979, TRAUTMAN 1981, AND BURR AND WARREN 1986).
AFCJC07030*026*KY	ICTIOBUS NIGER	BLACK BUFFALO	G5	S3	S		Y	1996-04	S	D	McCracken	JOPPA		LITTLE BAYOU CREEK [AT UNNAMED RD NR HOOPER CEMETERY CA 2.0 AIR KM NW OF KY 996-KY 1420 JCT].	RESERVOIRS AND MEDIUM TO LARGE RIVERS WITH MODERATE TO LOW GRADIENT AND SOMETIME SWIFT CURRENT (BECKER 1983, PFLIEGER 1975, SMITH 1979, TRAUTMAN 1981, AND BURR AND WARREN 1986).

Rare Species And Communities Recorded for the Proposed DUF6 Conversion Facility at the Paducah Gaseous Diffusion Plant.

KSNPC
Data Request No. 03-022

EOCODE	SNAME	SCOMNAME	GRANK	SRANK	SPROT	USESA	IDENT	LASTOBS	PREC	EORANK	COUNTY	7.5 MINUTE QUADRANGLE	EPA WATERBODY	DIRECTIONS	HABITAT
AFCJC07030*027*KY	ICTIOBUS NIGER	BLACK BUFFALO	G5	S3	S		Y	1997-03	S	D	McCracken	JOPPA		BIG BAYOU CREEK (CA. 0.4 STREAM KM S OF WEST BOONE RD CROSSING).	RESERVOIRS AND MEDIUM TO LARGE RIVERS WITH MODERATE TO LOW GRADIENT AND SOMETIME SWIFT CURRENT (BECKER 1983, PFLIEGER 1975, SMITH 1979, TRAUTMAN 1981, AND BURR AND WARREN 1986).
AFCQB11120*032*KY	LEPOMIS MINIATUS	REDSPOTTED SUNFISH	G5	S2	T		Y	1997-03	S	D	McCracken	HEATH		LITTLE BAYOU CK AT KY 358 (SITE 12).	OCCURS IN WELL-VEGETATED SWAMPS, SLOUGHS, BOTTOMLAND LAKES, AND LOW GRADIENT STREAMS (BURR AND MAYDEN 1979, PFLIEGER 1975, SMITH 1979, BURR AND WARREN 1986, ETNIER AND STARNES 1993).
AFCQB11120*033*KY	LEPOMIS MINIATUS	REDSPOTTED SUNFISH	G5	S2	T		Y	1996-04	S	D	McCracken	JOPPA		LITTLE BAYOU AT UNNAMED RD (SITE 10) [NR HOOPER CEMETERY CA 2.0 AIR KM NW OF KY 966/KY 1420 JCT].	OCCURS IN WELL-VEGETATED SWAMPS, SLOUGHS, BOTTOMLAND LAKES, AND LOW GRADIENT STREAMS (BURR AND MAYDEN 1979, PFLIEGER 1975, SMITH 1979, BURR AND WARREN 1986, ETNIER AND STARNES 1993).
AFCQB11120*034*KY	LEPOMIS MINIATUS	REDSPOTTED SUNFISH	G5	S2	T		Y	1996-06	S	D	McCracken	JOPPA		BIG BAYOU CREEK AT BOLDRY RD, 2.8 RIVER KM FROM MOUTH (SITE 14).	OCCURS IN WELL-VEGETATED SWAMPS, SLOUGHS, BOTTOMLAND LAKES, AND LOW GRADIENT STREAMS (BURR AND MAYDEN 1979, PFLIEGER 1975, SMITH 1979, BURR AND WARREN 1986, ETNIER AND STARNES 1993).
AFCQB11120*007*KY	LEPOMIS MINIATUS	REDSPOTTED SUNFISH	G5	S2	T		Y	1998-04-02	S	A	McCracken	JOPPA		METROPOLIS LAKE, 4.8 KM N OF GRAHAMVILLE.	OCCURS IN WELL-VEGETATED SWAMPS, SLOUGHS, BOTTOMLAND LAKES, AND LOW GRADIENT STREAMS (BURR AND MAYDEN 1979, PFLIEGER 1975, SMITH 1979, BURR AND WARREN 1986, ETNIER AND STARNES 1993).
AFCND02010*007*KY	MENIDIA BERYLLINA	INLAND SILVERSIDE	G5	S2	T		Y	1992-08-04	M	C	McCracken	JOPPA		OHIO RIVER NEAR JOPPA.	SCHOOLING SURFACE FISH THAT OCCURS IN THE MISSISSIPPI RIVER AND FLOODPLAIN LAKES (BURR AND WARREN 1986, ETNIER AND STARNES 1993).
AFCND02010*009*KY	MENIDIA BERYLLINA	INLAND SILVERSIDE	G5	S2	T		Y	1992-09-25	M	C	McCracken	JOPPA		OHIO RIVER MILE 944-948, NEAR SHAWNEE STEAM PLANT.	SCHOOLING SURFACE FISH THAT OCCURS IN THE MISSISSIPPI RIVER AND FLOODPLAIN LAKES (BURR AND WARREN 1986, ETNIER AND STARNES 1993).
AFCND02010*012*KY	MENIDIA BERYLLINA	INLAND SILVERSIDE	G5	S2	T		Y	1993-07-21	S	A	McCracken	JOPPA		METROPOLIS LAKE AT BOAT RAMP.	SCHOOLING SURFACE FISH THAT OCCURS IN THE MISSISSIPPI RIVER AND FLOODPLAIN LAKES (BURR AND WARREN 1986, ETNIER AND STARNES 1993).
AFCJB28650*002*KY	NOTROPIS MACULATUS	TAILLIGHT SHINER	G5	S2S3	T		Y	1998-04-02	S	A	McCracken	JOPPA		METROPOLIS LAKE, 5 KM N GRAHAMVILLE.	LOW GRADIENT STREAMS, OXBOW LAKES, AND SLOUGHS IN AND AROUND CYPRESS KNEES, MARGINAL VEGETATION, AND ACCUMULATIONS OF STICKS AND DETRITUS (BURR AND PAGE 1975, BURR AND WARREN 1986, ETNIER AND STARNES 1993).
AFCKA02220*014*KY	NOTURUS STIGMOSUS	NORTHERN MADTOM	G3	S2S3	S				G	H	McCracken	JOPPA		OHIO RIVER AT SHAWNEE STEAM PLANT, NW OF PADUCAH.	LARGE STREAMS AND RIVERS IN MODERATE TO SWIFT CURRENT OVER GRAVEL AND SAND, AND SOMETIMES DEBRIS OR PONDWEED FOR COVER (BURR AND WARREN 1986, ETNIER AND STARNES 1993).
AFCKA02220*037*KY	NOTURUS STIGMOSUS	NORTHERN MADTOM	G3	S2S3	S		Y	1999-09-08	S	D	McCracken	JOPPA		OHIO R AT LITTLE CHAIN BAR.	LARGE STREAMS AND RIVERS IN MODERATE TO SWIFT CURRENT OVER GRAVEL AND SAND, AND SOMETIMES DEBRIS OR PONDWEED FOR COVER (BURR AND WARREN 1986, ETNIER AND STARNES 1993).
***Amphibians															
AAABC02060*035*KY	HYLA CINEREA	GREEN TREEFROG	G5	S3	S		Y	1991-06-28	S	B	McCracken	JOPPA		CIRCA 0.3 AIR MI SW OF W TIP OF SHAWNEE STEAM PLANT SETTLING PONDS.	FLOODPLAIN WETLANDS, PARTICULARLY THOSE DOMINATED BY BUTTONBUSH AND HERBACEOUS EMERGENT VEGETATION.

Rare Species And Communities Recorded for the Proposed DUF6 Conversion Facility at the Paducah Gaseous Diffusion Plant.

KSNPC
Data Request No. 03-022

EOCODE	SNAME	SCOMNAME	GRANK	SRANK	SPROT	USESA	IDENT	LASTOBS	PREC	EORANK	COUNTY	7.5 MINUTE QUADRANGLE	EPA WATERBODY	DIRECTIONS	HABITAT
AAABC02060*034*KY	HYLA CINEREA	GREEN TREEFROG	G5	S3	S		Y	1991-06-25	S	B	McCracken	JOPPA		WEST KENTUCKY WILDLIFE MANAGEMENT AREA, CA 1.4 AIR MI WNW OF THE N TIP OF THE N-MOST SHAWNEE STEAM PLANT SETTLING POND.	FLOODPLAIN WETLANDS, PARTICULARLY THOSE DOMINATED BY BUTTONBUSH AND HERBACEOUS EMERGENT VEGETATION.
AAABH01014*049*KY	RANA AREOLATA CIRCULOSA	NORTHERN CRAWFISH FROG	G4T4	S3	S		Y	1964-03-07	G	O	McCracken	PADUCAH WEST		US 62, 5.0 MI SW OF PADUCAH.	BREEDS IN PONDS IN FARMLAND AND EDGE. REMAINS UNDERGROUND THROUGHOUT MOST OF THE YEAR, USING CRAYFISH BURROWS IN MOIST GRASSLANDS AND MEADOWS.
AAABH01014*050*KY	RANA AREOLATA CIRCULOSA	NORTHERN CRAWFISH FROG	G4T4	S3	S		Y	1964-03-13	M	O	McCracken	HEATH		US 60, 0.6 MI E OF FUTURE CITY, 10 MI W OF PADUCAH.	BREEDS IN PONDS IN FARMLAND AND EDGE. REMAINS UNDERGROUND THROUGHOUT MOST OF THE YEAR, USING CRAYFISH BURROWS IN MOIST GRASSLANDS AND MEADOWS.
AAABH01014*011*KY	RANA AREOLATA CIRCULOSA	NORTHERN CRAWFISH FROG	G4T4	S3	S		Y	1991-03-18	S	C	McCracken	JOPPA		MARTIN CEMETERY, S SIDE KY 358 CA 0.6 RD MI E JCT BETHEL CHURCH RD.	BREEDS IN PONDS IN FARMLAND AND EDGE. REMAINS UNDERGROUND THROUGHOUT MOST OF THE YEAR, USING CRAYFISH BURROWS IN MOIST GRASSLANDS AND MEADOWS.
AAABH01014*007*KY	RANA AREOLATA CIRCULOSA	NORTHERN CRAWFISH FROG	G4T4	S3	S		Y	1991-03-20	S	C	McCracken	HEATH		CIRCA 0.2 AIR MI E OF KY 1154, CA 1.2 RD MI N OF ITS JCT W/ US 60.	BREEDS IN PONDS IN FARMLAND AND EDGE. REMAINS UNDERGROUND THROUGHOUT MOST OF THE YEAR, USING CRAYFISH BURROWS IN MOIST GRASSLANDS AND MEADOWS.
AAABH01014*013*KY	RANA AREOLATA CIRCULOSA	NORTHERN CRAWFISH FROG	G4T4	S3	S		Y	1991-03-18	S	C	McCracken	JOPPA		CIRCA 0.2 RD MI E OF BETHEL CHURCH RD, CA 1.0 RD MI S JCT KY 358 (MARGNUM 33). CA 1.0 AIR MI SSE JCT KY 358 AND BETHEL CHURCH ROAD (MARGNUM 34, 370748N, 884941W).	BREEDS IN PONDS IN FARMLAND AND EDGE. REMAINS UNDERGROUND THROUGHOUT MOST OF THE YEAR, USING CRAYFISH BURROWS IN MOIST GRASSLANDS AND MEADOWS.
AAABH01014*009*KY	RANA AREOLATA CIRCULOSA	NORTHERN CRAWFISH FROG	G4T4	S3	S		Y	1991-03-18	S	C	McCracken	HEATH		WEST KENTUCKY WILDLIFE MANAGEMENT AREA, N SIDE WATER WORKS RD JUST W OF FILTRATION PLANT. MI NNW JCT KY 358 AND OGDEN LANDING RD (MARGNUM 14).	BREEDS IN PONDS IN FARMLAND AND EDGE. REMAINS UNDERGROUND THROUGHOUT MOST OF THE YEAR, USING CRAYFISH BURROWS IN MOIST GRASSLANDS AND MEADOWS.
AAABH01014*010*KY	RANA AREOLATA CIRCULOSA	NORTHERN CRAWFISH FROG	G4T4	S3	S		Y	1991-03-20	S	C	McCracken	HEATH		WEST KY WMA, CA 1.3 RD MI W JCT KY 996 AND KY 358 ON N SIDE KY 358 (MARGNUM 15, 370723N, 884736W). WEST KY WMA, 1.5 RD MI W OF JCT KY 996 AND KY 358, 0.15 AIR MI S OF WEST KENTUCKY WILDLIFE MANAGEMENT AREA, CA 0.1 RD MI NW OF JCT KY 358 AND KY 995, DOWN ROAD JUST SE OF LODGE (MARGNUM 36), AND CA 0.15 RD MI NW OF JCT KY 358 AND KY 995, DOWN RD JUST SE OF LODGE (MARGNUM 39).	BREEDS IN PONDS IN FARMLAND AND EDGE. REMAINS UNDERGROUND THROUGHOUT MOST OF THE YEAR, USING CRAYFISH BURROWS IN MOIST GRASSLANDS AND MEADOWS.
AAABH01014*015*KY	RANA AREOLATA CIRCULOSA	NORTHERN CRAWFISH FROG	G4T4	S3	S		Y	1998-02-27	S	C	McCracken	JOPPA			BREEDS IN PONDS IN FARMLAND AND EDGE. REMAINS UNDERGROUND THROUGHOUT MOST OF THE YEAR, USING CRAYFISH BURROWS IN MOIST GRASSLANDS AND MEADOWS.
AAABH01014*014*KY	RANA AREOLATA CIRCULOSA	NORTHERN CRAWFISH FROG	G4T4	S3	S		Y	1991-03-18	S	C	McCracken	JOPPA		WEST KENTUCKY WILDLIFE MANAGEMENT AREA, CA 0.6 RD MI SW OF JCT KY 995 AND KY 358, CA 0.15 AIR MI W OF KY 995, CA 0.5 RD MI SW OF AREA OFFICE (LODGE).	BREEDS IN PONDS IN FARMLAND AND EDGE. REMAINS UNDERGROUND THROUGHOUT MOST OF THE YEAR, USING CRAYFISH BURROWS IN MOIST GRASSLANDS AND MEADOWS.
AAABH01014*008*KY	RANA AREOLATA CIRCULOSA	NORTHERN CRAWFISH FROG	G4T4	S3	S		Y	1991-03-20	S	C	McCracken	HEATH		CIRCA 0.4 AIR MI NW OF SPRING BAYOU CHURCH ON KY 725 (MARGNUM 11). CA 0.7 RD MI W OF SPRING BAYOU CHURCH ON KY 725 ON N SIDE OF RD (MARGNUM 12, 370524N, 885030W).	BREEDS IN PONDS IN FARMLAND AND EDGE. REMAINS UNDERGROUND THROUGHOUT MOST OF THE YEAR, USING CRAYFISH BURROWS IN MOIST GRASSLANDS AND MEADOWS.
***Reptiles															
ARAAG01022*008*KY	APALONE MUTICA MUTICA	MIDLAND SMOOTH SOFTSHELL	G5T5	S3	S		Y	1986-07-16	G	E	McCracken	METROPOLIS		OHIO RIVER, NEAR BOAT RAMP ACROSS FROM JOPPA [ASSUMED TO MEAN METROPOLIS], ILL.	OPEN WATER HABITATS; MOST NUMEROUS IN OPEN RIVER SITUATIONS WITH GRAVEL OR SAND SUBSTRATES, BUT ALSO PRESENT IN SLOWER RIVERS AND IMPOUNDMENTS.

Rare Species And Communities Recorded for the Proposed DUF6 Conversion Facility at the Paducah Gaseous Diffusion Plant.

KSNPC
Data Request No. 03-022

EOCODE	SNAME	SCOMNAME	GRANK	SRANK	SPROT	USESA	IDENT	LASTOBS	PREC	EORANK	COUNTY	7.5 MINUTE QUADRANGLE	EPA WATERBODY	DIRECTIONS	HABITAT
***Birds															
ABPBX91050*039*KY	AIMOPHILA AESTIVALIS	BACHMAN'S SPARROW	G3	S1B	E		Y	1951-07-17	G	X	McCracken	PADUCAH WEST	;OHIO RIVER FROM TENNESSEE RIVER TO MISSISSIPPI RIVER	5 MI W OF PADUCAH.	OPEN PINE WOODS WITH SCATTERED BUSHES OR UNDERSTORY, BRUSHY OR OVERGROWN HILLSIDES, OVERGROWN FIELDS WITH THICKETS AND BRAMBLES, GRASSY ORCHARDS.
ABPAV10080*014*KY	CORVUS OSSIFRAGUS	FISH CROW	G5	S3B	S		Y	1980-06-27	Q	H	McCracken	JOPPA	OHIO RIVER FROM TENNESSEE RIVER TO MISSISSIPPI RIVER	WEST KY WMA, ALONG OHIO RIVER AT EDGE OF BOTTOMLAND FOREST.	BEACHES, BAYS, LAGOONS, INLETS, SWAMPS, NEAR MARSHES, AND, LESS FREQUENTLY, DECIDUOUS OR CONIFEROUS WOODLAND, IN INLAND SITUATIONS PRIMARILY IN BALDCYPRESS SWAMPS AND ALONG MAJOR WATERCOURSES. ALSO GARBAGE DUMPS.
ABNJB20010*004*KY	LOPHODYTES CUCULLATUS	HOODED MERGANSER	G5	S1S2B,S3S4N	T		Y	1980-05-08	S	H	McCracken	JOPPA		WEST KENTUCKY WILDLIFE MANAGEMENT AREA, 3.9 MI NNW OF GRAHAMVILLE.	STREAMS, LAKES, SWAMPS, MARSHES, AND ESTUARIES; WINTERS MOSTLY IN FRESHWATER BUT ALSO REGULARLY IN ESTUARIES AND SHELTERED BAYS (B83COM01NA).
ABPBW01110*001*KY	VIREO BELLII	BELL'S VIREO	G5	S2S3B	S		Y	1980-06-27	M	H	McCracken	JOPPA		ALONG LITTLE BAYOU CREEK, ADJ TO THE W SIDE OF THE ASH SETTLING POND AT THE SHAWNEE STEAM PLANT, 6 MI NNW OF GRAHAMVILLE.	DENSE BRUSH, MESQUITE, STREAMSIDE THICKETS, AND SCRUB OAK, IN ARID REGIONS BUT OFTEN NEAR WATER (B83COM01NA); MOIST WOODLAND, BOTTONLANDS, WOODLAND EDGE, SCATTERED COVER AND HEDGEROWS IN CULTIVATED AREAS. OPEN WOODLAND, BRUSH IN WINT.
ABPBW01110*002*KY	VIREO BELLII	BELL'S VIREO	G5	S2S3B	S		Y	1994-05-05	S	C	McCracken	JOPPA		WEST KENTUCKY WMA, W SIDE OF MAIN GRAVEL RD, CA 1.0 MI S OF ENTRANCE ON KY 358.	DENSE BRUSH, MESQUITE, STREAMSIDE THICKETS, AND SCRUB OAK, IN ARID REGIONS BUT OFTEN NEAR WATER (B83COM01NA); MOIST WOODLAND, BOTTONLANDS, WOODLAND EDGE, SCATTERED COVER AND HEDGEROWS IN CULTIVATED AREAS. OPEN WOODLAND, BRUSH IN WINT.
***Mammals															
AMACC01030*026*KY	MYOTIS AUSTRORIPARIUS	SOUTHEASTERN MYOTIS	G3G4	S1S2	E			1999-07-14	S	E	McCracken	HEATH		WEST KENTUCKY WMA, BAYOU CREEK JUST UPSTREAM OF SOUTH ACID RD.	THE SOUTHEASTERN MYOTIS USES PRIMARILY CAVES FOR HIBERNACULA AND SUMMER MATERNITY AND ROOSTING SITES.
AMACC01030*027*KY	MYOTIS AUSTRORIPARIUS	SOUTHEASTERN MYOTIS	G3G4	S1S2	E			1999-07-22	S	E	McCracken	JOPPA	;OHIO RIVER FROM TENNESSEE RIVER TO MISSISSIPPI RIVER	BAYOU CREEK RIDGE STATE NATURAL AREA, W END ON N SIDE OF CREEK, CA 0.1 AIR MI SE OF END OF WMA RD TO OHIO RIVER.	THE SOUTHEASTERN MYOTIS USES PRIMARILY CAVES FOR HIBERNACULA AND SUMMER MATERNITY AND ROOSTING SITES.
AMACC01100*101*KY	MYOTIS SODALIS	INDIANA BAT	G2	S1S2	E	LE	Y	1999-07-28	S	E	McCracken	JOPPA	;OHIO RIVER FROM TENNESSEE RIVER TO MISSISSIPPI RIVER	WEST KENTUCKY WILDLIFE MANAGEMENT AREA, W OF BAYOU CREEK RIDGE SNA, CA 0.1 AIR MI SE OF END OF RD (MARGNUM 24), AND CA 0.15 RD MI SE OF BAYOU CREEK ALONG OLD RD (MARGNUM 58).	INDIANA BATS USE PRIMARILY CAVES FOR HIBERNACULA, ALTHOUGH THEY ARE OCCASIONALLY FOUND IN OLD MINE PORTALS.
AMACC06010*015*KY	NYCTICEIUS HUMERALIS	EVENING BAT	G5	S2S3	T		Y	1999-07-28	S	E	McCracken	JOPPA	;OHIO RIVER FROM TENNESSEE RIVER TO MISSISSIPPI RIVER	0.4 AIR MI SSE OF END OF RD TO OHIO RIVER (MARGNUM 26), AND JUST DOWNSTREAM OF GRAVEL RD CROSSING (MARGNUM 59), AND W OF BAYOU CR RIDGE, CA 0.1 AIR MI SE OF N END OF WMA ROAD TO THE OHIO RIVER (MARGNUM 26).	THE EVENING BAT IS A COLONIAL SPECIES THAT ROOSTS IN TREES AND HOUSES. IT APPARENTLY MIGRATES SOUTHWARD IN WINTER.
AMACC06010*047*KY	NYCTICEIUS HUMERALIS	EVENING BAT	G5	S2S3	T		Y	1999-08-02	S	E	McCracken	JOPPA		WEST KY WMA, ALONG BAYOU CREEK CA 0.8 AIR MI WSW OF HEADQUARTERS.	THE EVENING BAT IS A COLONIAL SPECIES THAT ROOSTS IN TREES AND HOUSES. IT APPARENTLY MIGRATES SOUTHWARD IN WINTER.
***Palustrine Communities															

KSNPC
Data Request No. 03-022

Rare Species And Communities Recorded for the Proposed DUF6 Conversion Facility at the Paducah Gaseous Diffusion Plant.

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8/12/02

ECOCODE	SNAME	SCOMNAME	GRANK	SRANK	SPROT	USESA	IDENT	LASTOBS	PREC	EORANK	COUNTY	7.5 MINUTE QUADRANGLE	EPA WATERBODY	DIRECTIONS	HABITAT
CPFORI0001E001*KY	FLOODPLAIN RIDGE/TERRACE FOREST			S1	N		Y	1991-06	S	B	McCracken	JOPPA		WEST KY WILDLIFE MANAGEMENT AREA, BAYOU CREEK WOODS, CA 2.0 AIR MI NW OF SHAWNEE STEAM PLANT.	

69 Records Processed.

COUNTY REPORT
OF
ENDANGERED, THREATENED, AND SPECIAL CONCERN
PLANTS, ANIMALS, AND NATURAL COMMUNITIES
OF
KENTUCKY

KENTUCKY STATE NATURE PRESERVES COMMISSION
801 SCHENKEL LANE
FRANKFORT, KY 40601
(502) 573-2886 (phone)
(502) 573-2355 (fax)

www.kynaturepreserves.org

Data Current as of June 2002

Kentucky State Nature Preserves Commission
Key for County List Report

The attached report lists endangered, threatened, special concern, and historic plants, animals, and natural communities (elements) reported from each county in Kentucky. Within a county, elements are arranged first by taxonomic complexity (plants first, natural communities last), and second by scientific name. A key to status, ranks, and count data fields follows.

STATUS

KSNPC: Kentucky State Nature Preserves Commission status:
N or blank = none E = endangered T = threatened S = special concern H = historic X = extirpated

USESA: U.S. Fish and Wildlife Service status:
N or blank = none C = candidate LT = listed as threatened
LE = listed as endangered

LTNL = Listed Threatened in part of its range, but is not listed in Kentucky (Copperbelly water snake has a special conservation agreement in 14 Kentucky counties as an alternative to Federal Listing.)

RANKS

GRANK: Estimate of element abundance on a global scale:
G1 = extremely rare G2 = rare G3 = uncommon G4 = common G5 = very common
GU = uncertain GH = historically known and expected to be rediscovered GX = extinct

Subspecies and variety abundances are coded with a 'T' suffix; the 'G? portion of the rank then refers to the entire species.

SRANK: Estimate of element abundance in Kentucky:

S1 = extremely rare	S2 = rare	S3 = uncommon
S4 = many occurrences	S5 = very common	SA = accidental
SRF = reported falsely in literature	SU = uncertain	SX = extirpated
SE = exotic	? = unknown	SH = historically known in state
SZ = not of significant conservation concern		SR = reported but without persuasive documentation
S#B - breeding rank for non-resident species		S#N - non-breeding rank for non-resident species

COUNT DATA FIELDS

OF OCCURRENCES: Number of occurrences of a particular element from a county. Column headings are as follows:

E - currently reported from the county
H - reported from the county but not seen since 1980 (at least 20 years)
F - reported from county & cannot be relocated but for which further inventory is needed (previously reported as "O")
X - known to have extirpated from the county
U - reported from a county but cannot be mapped to a quadrangle or exact location.

The data from which the county report is generated is continually updated. The date on which the report was created is in the report footer. Contact KSNPC for a current copy of the report, which is produced in this form annually.

Please note that the quantity and quality of data collected by the Kentucky Natural Heritage Program are dependent on the research and observations of many individuals and organizations. In most cases, this information is not the result of comprehensive or site-specific field surveys; many natural areas in Kentucky have never been thoroughly surveyed, and new species of plants and animals are still being discovered. For these reasons, the Kentucky Natural Heritage Program cannot provide a definitive statement on the presence, absence, or condition of biological elements in any part of Kentucky. Heritage reports summarize the existing information known to the Kentucky Natural Heritage Program at the time of the request regarding the biological elements or locations in question. They should never be regarded as final statements on the elements or areas being considered, nor should they be substituted for on-site surveys required for environmental assessments.

KSNPC appreciates the submission of any endangered species data for Kentucky from field observations. For information on data reporting or other data services provided by KSNPC, please contact the Data Manager at:

KY State Nature Preserves Commission
801 Schenkel Lane
Frankfort, KY 40601
phone: (502) 573-2886
fax: (502) 573-2355

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County	Taxonomic Group	Scientific name	Common name	Statuses	Ranks	# of Occurrences E H F X U
	HABITAT					
McCracken	PLANTS	***AESCULUS PAVIA***	RED BUCKEYE	T	G5/S2S3	0 1 0 0 0
	WOODS AND THICKETS.					
McCracken	PLANTS	***ASTER DRUMMONDII VAR TEXANUS***	TEXAS ASTER	T	G5T?/S2	0 0 0 0 1
	BOTTOMLANDS AND OPEN WOODS.					
McCracken	PLANTS	***BAPTISIA BRACTEATA VAR LEUCOPHAEA***	CREAM WILD INDIGO	S	G4G5T4T5/S3	2 0 0 0 0
	PRAIRIES AND OPEN WOODS ON SANDY SOIL.					
McCracken	PLANTS	***CAREX HYSTERICINA***	PORCUPINE SEDGE	H	G5/SH	0 1 0 0 0
	SWAMPS, WET MEADOWS, SHORELINES.					
McCracken	PLANTS	***CARYA AQUATICA***	WATER HICKORY	T	G5/S2S3	1 0 0 0 0
	BOTTOMLANDS AND FLOODPLAIN SWAMPS.					
McCracken	PLANTS	***HALESIA TETRAPTERA***	MOUNTAIN SILVER-BELL	E	G5/S1S2	2 0 0 0 1
	RICH WOODS AND EDGES OF SLOUGHS AND OXBOW LAKES.					
McCracken	PLANTS	***HETEROTHECA SUBAXILLARIS VAR LATIFOLIA***	BROAD-LEAF GOLDEN-ASTER	T	G5T5/S2	1 0 0 0 0
	DRY, OFTEN SANDY PLACES, PARTICULARLY DISTURBED SITES.					
McCracken	PLANTS	***HYDROLEA UNIFLORA***	ONE-FLOWER FIDDLELEAF	S	G5/S3?	0 1 0 0 0
	SWAMPY WOODLANDS, POND AND SLOUGH MARGINS, WET DITCHES.					
McCracken	PLANTS	***HYPERICUM ADPRESSUM***	CREEPING ST. JOHN'S-WORT	H	G2G3/SH	0 0 0 0 1
	MARSHES, SHORES, WET MEADOWS, SWALES AND DITCHES.					
McCracken	PLANTS	***LATHYRUS PALUSTRIS***	VETCHLING PEAVINE	T	G5/S2	0 0 0 0 1
	WET MEADOWS, SWAMPS, WET WOODS, AND IN KY BOULDER COBBLE BARS ALONG CREEKS AND RIVERS, AND KNOWN FROM A ROADSIDE NEAR A RAILROAD. (MEDLEY).					
McCracken	PLANTS	***LESPEDEZA STUEVEI***	TALL BUSH-CLOVER	S	G4?/S3?	0 1 0 0 0
	DRY HILLSIDE, WOODLAND.					
McCracken	PLANTS	***LILIUM SUPERBUM***	TURK'S CAP LILY	T	G5/S1S2	0 0 0 0 1
	MOIST MEADOWS, MOIST/WET WOODS INLCUDING FLOODPLAINS, AND COVES					
McCracken	PLANTS	***MALUS ANGUSTIFOLIA***	SOUTHERN CRABAPPLE	S	G5?/S3	0 1 0 0 0
	OPEN DRY - MESIC WOODS AND THICKETS.					
McCracken	PLANTS	***MELANTHERA NIVEA***	SNOW MELANTHERA	S	G5/S3?	1 0 0 0 0
	FLOODPLAINS AND SANDY WOODS INCLUDING DISTURBED OPENINGS.					
McCracken	PLANTS	***MUHLENBERGIA GLABRIFLORIS***	HAIR GRASS	S	G4?/S2S3	0 1 0 0 0
	DRY, DESSICCATED OR BAKED SOILS, PRAIRIES, GRAVELS, OR ROCKY SLOPES AND MEDLEY REPORTS WET WOODS, MARSH EDGES AND FIELDS.					
McCracken	PLANTS	***PRENANTHES ASPERA***	ROUGH RATTLESNAKE-ROOT	E	G4?/S1	1 1 0 0 0
	DRY PRAIRIES AND BARRENS, LIMESTONE GLADES, DRY, OPEN ROCKY WOODS. USUALLY IN ACID SOILS.					
McCracken	PLANTS	***RUDBECKIA SUBTOMENTOSA***	SWEET CONEFLOWER	E	G5/S1	1 0 1 0 0
	PRAIRIES AND LOW GROUNDS SUCH AS OPEN STREAM TERRACE WOODLANDS.					
McCracken	PLANTS	***SILPHIUM LACINIATUM VAR ROBINSONII***	COMPASS PLANT	T	G5T?/S2	5 0 0 0 0
	PRAIRIES INCL. REMNANTS OF THIS FLORA ON ROADSIDES AND FIELDS.					
McCracken	PLANTS	***SOLIDAGO BUCKLEYI***	BUCKLEY'S GOLDENROD	S	G4/S2S3	0 1 0 0 0
	WOODS AND BLUFFS.					

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	HABITAT					
McCracken	GASTROPODS	***LEPTOXIS PRAEROSA***	ONYX ROCKSNAIL	S	G5/S3S4	0 1 0 0 0
	CALL (1895) INDICATED THAT IN THE OHIO RIVER AT THE FALLS IT OCCURRED IN THE GREATEST PROFUSION WHERE THE BOTTOM IS CLEAN ROCK OR ROCK WITH ABUNDANT CONFERVOID" VEGETATION."					
McCracken	GASTROPODS	***LITHASIA ARMIGERA***	ARMORED ROCKSNAIL	S	G3G4/S3S4	0 0 0 0 1
	BARS AND POOLS WITH SAND, GRAVEL, AND ROCK SUBSTRATES (KNPC), SLOPING ROCK OUTCROPS WITH POCKETS OF SAND, GRAVEL AND MUD, PARTIALLY BURIED LOGS, AND ROCK RIPRAP (SICKEL 1988).					
McCracken	GASTROPODS	***LITHASIA GENICULATA***	ORNATE ROCKSNAIL	S	G3G4/S1	0 3 0 0 0
McCracken	GASTROPODS	***LITHASIA VERRUCOSA***	VARICOSE ROCKSNAIL	S	G3G4/S3S4	0 2 0 0 1
	OBSERVATIONS ON THE HABITAT INCLUDE SPECIMENS TAKEN FROM RECENTLY EXPOSED BARS AND POOLS WITH SAND, GRAVEL, AND ROCK SUBSTRATES (HAAG AND PALMER-BALL, PERS COMM).					
McCracken	BIVALVES	***FUSCONAIA SUBROTUNDA SUBROTUNDA***	LONGSOLID	S	G3T3/S3	0 1 0 0 0
	GRAVEL BARS AND DEEP POOLS IN LARGE RIVERS AND LARGE TO MEDIUM-SIZED STREAMS (AHLSTEDT 1984, GOODRICH AND VAN DER SCHALIE 1944, NEEL AND ALLEN 1964, PARMALEE 1967).					
McCracken	BIVALVES	***LAMPSILIS ABRUPTA***	PINK MUCKET	E/LE	G2/S1	2 3 1 0 0
	LARGE RIVERS IN HABITATS RANGING FROM SILT TO BOULDERS, BUT APPARENTLY MORE COMMONLY FROM GRAVEL AND COBBLE. COLLECTED FROM SHALLOW AND DEEP WATER WITH CURRENT VELOCITY RANGING FROM ZERO TO SWIFT (AHLSTEDT 1983, BOGAN AND PARMALEE 1983, BUCHANAN 1980), B					
McCracken	BIVALVES	***LAMPSILIS OVATA***	POCKETBOOK	E	G5/S1	0 3 0 0 0
	CONSIDERED A LARGE RIVER SPECIES (CLENCH AND VAN DER SCHALIE 1944, PARMALEE 1967, STANSBERY 1976), BUT OCCURS IN MEDIUM-SIZED STREAMS IN GRAVEL, SAND, OR EVEN MUD (PARMALEE 1967, JOHNSON 1970, GORDON AND LAYZER 1989). IN THE LOWER WABASH AND OHIO RIVERS					
McCracken	BIVALVES	***OBOVARIA RETUSA***	RING PINK	E/LE	G1/S1	0 1 0 1 0
	LARGE RIVER SPECIES THAT INHABITS GRAVEL AND SAND BARS (BOGAN AND PARMALEE 1983, GOODRICH AND VAN DER SCHALIE 1944, NEEL AND ALLEN 1964, STANSBERY 1976).					
McCracken	BIVALVES	***PLETHOBASUS COOPERIANUS***	ORANGEFOOT PIMPLEBACK	E/LE	G1/S1	4 2 2 0 0
	USUALLY FOUND IN LARGE RIVERS IN SAND AND GRAVEL SUBSTRATES (AHLSTEDT 1983, BOGAN AND PARMALEE 1983, MILLER, A.C. ET AL. 1986).					
McCracken	BIVALVES	***PLETHOBASUS CYPHYUS***	SHEEPNOSE	S	G3/S3	3 5 1 0 0
	USUALLY FOUND IN LARGE RIVERS IN CURRENT ON MUD, SAND, OR GRAVEL BOTTOMS AT DEPTH OF 1-2 METERS OR MORE (BAKER 1928, PARMALEE 1967, GORDON AND LAYZER 1989).					
McCracken	BIVALVES	***PLEUROBEMA RUBRUM***	PYRAMID PIGTOE	E	G2/S1	0 1 0 0 0
	INHABITS MEDIUM TO LARGE RIVERS AND USUALLY OCCURS IN SAND OR GRAVEL BOTTOMS IN DEEP WATERS (AHLSTEDT 1984, MURRAY AND LEONARD 1962, PARMALEE ET AT. 1982).					
McCracken	BIVALVES	***POTAMILUS CAPAX***	FAT POCKETBOOK	E/LE	G1/S1	1 1 1 1 0
	OCCURS IN MEDIUM TO LARGE-SIZED RIVERS OFTEN AROUND ISLAND AND BACK CHANNELS, AND SOMETIMES IN DITCHES, IN MUD (OOZE); MIXED SAND, MUD, AND CLAY; OR FINE SILT AND MUD IN FLOWING WATER AT DEPTHS OF A FEW INCHES UP TO EIGHT FEET (PARMALEE 1967, AHLSTEDT AN					
McCracken	BIVALVES	***POTAMILUS PURPURATUS***	BLEUFER	E	G5/S1	1 0 0 0 0
	DEEP STREAMS WITH DEEP MUD AND FAIRLY QUIET POOLS (MURRAY AND LEONARD 1962). IN MISSOURI BOOTHEEL STREAMS, IT IS FOUND IN SMALL TO MEDIUM GRAVEL WITH MUD OCCASIONALLY INTERSPERSED (OESCH 1984). IN THE ST. FRANCIS RIVER OF ARKANSAS AND MISSOURI, INDIVIDUA					
McCracken	BIVALVES	***QUADRULA CYLINDRICA CYLINDRICA***	RABBITSFOOT	T	G3T3/S2	1 2 1 0 0
	SMALL TO LARGE RIVERS WITH SAND, GRAVEL, AND COBBLE AND MODERATE TO SWIFT CURRENT, SOMETIMES IN DEEP WATER (PARMALEE 1967, BOGAN AND PARMALEE 1983).					
McCracken	CRUSTACEANS	***CAMBARELLUS PUER***	A DWARF CRAYFISH	E	G4G5/S1	0 0 1 0 0
	CYPRESS SWAMPS, STREAMS, AND LOWLANDS (DRAINED WETLANDS) ON THE MISSISSIPP ALLUVIAL PLAIN, USUALLY AMONG LIVING OR DEAD VEGETATION (PAGE 1985).					
McCracken	CRUSTACEANS	***ORCONECTES LANCIFER***	A CRAYFISH	E	G5/S1	0 1 0 0 0
	OXBOW LAKES AND STREAMS ON THE GULF COASTAL PLAIN (PAGE 1985), WHERE IT LIVES AMONG ORGANIC DEBRIS, USUALLY NEAR BALD CYPRESS (BURR AND HOBBS 1984).					

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	HABITAT					
McCracken	INSECTS	***EUPHYES DUKESI***	DUKES' SKIPPER	S	G3/S1	3 0 0 1 0
	SHADED TUPELO SWAMPS IN SOUTH, PARTIALLY SHADED MARSHES AND DITCHES IN MIDWEST (OPLER AND MALIKUL 1992). FEEDS ON SEDGES (CAREX LACUSTRIS AND C. HYALINOLEPIS) (L.D. GIBSON PERS COMM). ON THE ATLANTIC COAST IT ALSO FEEDS ON CAREX WALTERIANA (L.D. GIBSON P					
McCracken	INSECTS	***SATYRIUM FAVONIUS ONTARIO***	NORTHERN HAIRSTREAK	S	G4T4/S1	0 1 0 0 0
	S. FAVONIUS IS FOUND IN WOODS OR EDGES WITH EVERGREEN OR DECIDUOUS OAKS (OPLER AND MALIKUL 1992). MAIN HABITAT REQUIREMENTS ARE BLACK JACK OAK (QUERCUS MARILANDICA) AND A NECTAR SOURCE SUCH AS FARKLEBERRY (VACCINIUM ARBORETUM) OR DOGBANE (APOCYNUM CANNAB					
McCracken	FISHES	***ACIPENSER FULVESCENS***	LAKE STURGEON	E	G3/S1	0 1 0 0 0
	LAKES AND LARGE RIVERS WITH A FIRM SAND/GRAVEL BOTTOM (BURR AND WARREN 1986, ETNIER AND STARNES 1993).					
McCracken	FISHES	***ATRACTOSTEUS SPATULA***	ALLIGATOR GAR	E	G3G4/S1	0 1 0 0 0
	SLUGGISH POOLS AND BACKWATERS OF LARGE RIVERS, BACKWATERS, AND OXBOW LAKES (BURR AND WARREN 1986, PAGE AND BURR 1991, ETNIER AND STARNES 1993).					
McCracken	FISHES	***CYPRINELLA VENUSTA***	BLACKTAIL SHINER	S	G5/S3	1 0 0 0 0
	OCCURS IN CREEKS AND SMALL STREAMS OF THE COASTAL PLAIN OVER FIRM SAND AND GRAVEL OF RIFFLES AND RACEWAYS, AND ALONG UNDERCUT BANKS OR AMONG SUBMERGED STUMPS AND LOGS (BURR AND WARREN 1986). ALSO, OVER FIRM SAND OR GRAVEL IN THE MISSISSIPPI AND LOWER OHI					
McCracken	FISHES	***ERIMYZON SUCETTA***	LAKE CHUBSUCKER	T	G5/S2	0 1 0 0 0
	LOWLAND LENTIC HABITATS (WETLANDS AND FLOODPLAIN LAKES) WITH SUBMERGENT AND FLOATING VEGETATION (BURR AND WARREN 1986, ETNIER AND STARNES 1993).					
McCracken	FISHES	***ESOX NIGER***	CHAIN PICKEREL	S	G5/S3	1 0 0 0 0
	COASTAL PLAIN WETLANDS, STREAMS, AND VEGETATED OXBOW LAKE SHORELINES, AND IT ALSO TOLERATES RESERVOIR CONDITIONS (BURR AND WARREN 1986, ETNIER AND STARNES 1993).					
McCracken	FISHES	***ETHEOSTOMA PROELIARE***	CYPRESS DARTER	T	G5/S2	1 0 0 0 0
	SMALL TO MEDIUM-SIZE SLUGGISH STREAMS, OXBOWS, AND WETLANDS WHERE THE BOTTOM IS SOFT AND AQUATIC VEGETATION ABOUNDS (BURR AND MAYDEN 1979, KUEHNE AND BARBOUR 1983, PAGE 1983, BURR AND WARREN 1986).					
McCracken	FISHES	***HYBOGNATHUS HAYI***	CYPRESS MINNOW	E	G5/S1	1 2 0 0 0
	OXBOW LAKES AND QUIET WATER OF LOW GRADIENT STREAMS ON THE COASTAL PLAIN AND SHAWNEE HILLS. USUALLY OVER MUD OR SAND BOTTOMS, BUT OCCASIONALLY ASSOCIATED WITH SUBMERGED AQUATIC VEGETATION OR OTHER COVER (BURR AND WARREN 1986, PFLIEGER 1975, SMITH 1979, G					
McCracken	FISHES	***ICHTHYOMYZON CASTANEUS***	CHESTNUT LAMPREY	S	G4/S2	1 2 0 0 0
	MODERATE-SIZE CREEKS, LARGE RIVERS, AND RESERVOIRS. SUBSTRATE CONSISTS OF GRAVEL AND RUBBLE WITH AREAS OF SAND AND SILT. LARVAE REQUIRE CLEAR STREAMS WITH STABLE BARS OF SILT, SAND AND ORGANIC DETRITIS (BECKER 1983, PFLIEGER 1975, ROHDE AND LANTEIGNE-COU					
McCracken	FISHES	***ICTIOBUS NIGER***	BLACK BUFFALO	S	G5/S3	4 0 0 0 0
	RESERVOIRS AND MEDIUM TO LARGE RIVERS WITH MODERATE TO LOW GRADIENT AND SOMETIME SWIFT CURRENT (BECKER 1983, PFLIEGER 1975, SMITH 1979, TRAUTMAN 1981, AND BURR AND WARREN 1986).					
McCracken	FISHES	***LEPOMIS MINIATUS***	REDSPOTTED SUNFISH	T	G5/S2	4 0 0 0 0
	OCCURS IN WELL-VEGETATED SWAMPS, SLOUGHS, BOTTOMLAND LAKES, AND LOW GRADIENT STREAMS (BURR AND MAYDEN 1979, PFLIEGER 1975, SMITH 1979, BURR AND WARREN 1986, ETNIER AND STARNES 1993).					
McCracken	FISHES	***LOTA LOTA***	BURBOT	S	G5/SU	1 0 0 0 0
	KENTUCKY SPECIMENS GENERALLY COME FROM MEDIUM TO LARGE-SIZE RIVERS. IN THE NORTH, THEY INHABIT COOL, LARGE, AND DEEP RIVERS AND LAKES (BECKER 1983, PFLIEGER 1975, SCOTT AND CROSSMAN 1973, SMITH 1979, TRAUTMAN 1981).					
McCracken	FISHES	***MENIDIA BERYLLINA***	INLAND SILVERSIDE	T	G5/S2	4 0 0 0 0
	SCHOOLING SURFACE FISH THAT OCCURS IN THE MISSISSIPPI RIVER AND FLOODPLAIN LAKES (BURR AND WARREN 1986, ETNIER AND STARNES 1993).					
McCracken	FISHES	***NOTROPIS MACULATUS***	TAILLIGHT SHINER	T	G5/S2S3	1 1 0 0 0
	LOW GRADIENT STREAMS, OXBOW LAKES, AND SLOUGHS IN AND AROUND CYPRESS KNEES, MARGINAL VEGETATION, AND ACCUMULATIONS OF STICKS AND DETRITUS (BURR AND PAGE 1975, BURR AND WARREN 1986, ETNIER AND STARNES 1993).					

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	HABITAT					
McCracken	FISHES	***NOTURUS STIGMOSUS***	NORTHERN MADTOM	S	G3/S2S3	2 1 0 0 0
	LARGE STREAMS AND RIVERS IN MODERATE TO SWIFT CURRENT OVER GRAVEL AND SAND, AND SOMETIMES DEBRIS OR PONDWEED FOR COVER (BURR AND WARREN 1986, ETNIER AND STARNES 1993).					
McCracken	FISHES	***UMBRA LIMI***	CENTRAL MUDMINNOW	T	G5/S2S3	1 0 0 0 0
	RESTRICTED TO DENSE BEDS OF SUBMERGENT AQUATIC VEGETATION OR ORGANIC DEBRIS PILES IN SPRING-FED WETLANDS, DITCHES, AND THE MARGINS OF LOWLAND LAKES OF THE COASTAL PLAIN (BURR AND WARREN 1986).					
McCracken	AMPHIBIANS	***AMPHIUMA TRIDACTYLUM***	THREE-TOED AMPHIUMA	E	G5/S1	0 0 0 0 1
	THE AMPHIUMA IS FOUND IN LAKES, OPEN SPRING STREAMS OF RUNNING WATER, AND STREAMS FLOWING OVER CALCAREOUS ROCKS. ALSO RECORDED FROM DRAINAGE DITCHES, BAYOUS, AND WOODED ALLUVIAL SWAMPS (BISHOP 1974). PROBABLY ONLY THE LATTER IN KENTUCKY.					
McCracken	AMPHIBIANS	***HYLA CINEREA***	GREEN TREEFROG	S	G5/S3	2 0 0 0 0
	FLOODPLAIN WETLANDS, PARTICULARLY THOSE DOMINATED BY BUTTONBUSH AND HERBACEOUS EMERGENT VEGETATION.					
McCracken	AMPHIBIANS	***RANA AREOLATA CIRCULOSA***	NORTHERN CRAWFISH FROG	S	G4T4/S3	17 1 6 0
	BREEDS IN PONDS IN FARMLAND AND EDGE. REMAINS UNDERGROUND THROUGHOUT MOST OF THE YEAR, USING CRAYFISH BURROWS IN MOIST GRASSLANDS AND MEADOWS.					
McCracken	REPTILES	***APALONE MUTICA MUTICA***	MIDLAND SMOOTH SOFTSHELL	S	G5T5/S3	1 0 0 0 0
	OPEN WATER HABITATS; MOST NUMEROUS IN OPEN RIVER SITUATIONS WITH GRAVEL OR SAND SUBSTRATES, BUT ALSO PRESENT IN SLOWER RIVERS AND IMPOUNDMENTS.					
McCracken	REPTILES	***MACROCLEMYS TEMMINCKII***	ALLIGATOR SNAPPING TURTLE	T	G3G4/S2	0 1 0 0 0
	FLOODPLAIN SLOUGHS, BACKWATER AREAS OF LARGER RIVERS, IMPOUNDMENTS. SEEMS TO PREFER MUDDY SUBSTRATE WITH DARK RETREATS INCLUDING MUSKAT AND BEAVER DENS, LOGS, OR SHELTERING VEGETATION.					
McCracken	REPTILES	***THAMNOPHIS SAURITUS SAURITUS***	EASTERN RIBBON SNAKE	S	G5T5/S3	1 0 0 0 0
	VARIETY OF SEMI-OPEN HABITATS, GENERALLY IN WEEDY OR BRUSHY GROWTH ALONG THE MARGINS OF SLOUGHS, MARSHES AND OTHER AQUATIC HABITATS.					
McCracken	BIRDS	***ACCIPITER STRIATUS***	SHARP-SHINNED HAWK	S	G5/S3B,S4N	1 0 0 0 0
	FOREST AND OPEN WOODLAND, CONIFEROUS, MIXED, OR DECIDUOUS, PRIMARILY IN CONIF. IN MORE NORTHERN AND MOUNTAINOUS PORTION OF RANGE (B83COM01NA). MIGRATES THROUGH VARIOUS HABITATS, MAINLY ALONG RIDGES, LAKESHORES, & COASTLINES (B83NAT01NA).					
McCracken	BIRDS	***AIMOPHILA AESTIVALIS***	BACHMAN'S SPARROW	E	G3/SX?B	0 0 0 1 0
	OPEN PINE WOODS WITH SCATTERED BUSHES OR UNDERSTORY, BRUSHY OR OVERGROWN HILLSIDES, OVERGROWN FIELDS WITH THICKETS AND BRAMBLES, GRASSY ORCHARDS.					
McCracken	BIRDS	***ARDEA HERODIAS***	GREAT BLUE HERON	S	G5/S3B,S4N	0 0 1 0 0
	FRESHWATER AND BRACKISH MARSHES, ALONG LAKES, RIVERS, BAYS, LAGOONS, OCEAN BEACHES, MANGROVES, FIELDS, AND MEADOWS.					
McCracken	BIRDS	***CORVUS OSSIFRAGUS***	FISH CROW	S	G5/S3B	2 1 0 0 0
	BEACHES, BAYS, LAGOONS, INLETS, SWAMPS, NEAR MARSHES, AND, LESS FREQUENTLY, DECIDUOUS OR CONIFEROUS WOODLAND, IN INLAND SITUATIONS PRIMARILY IN BALDCYPRESS SWAMPS AND ALONG MAJOR WATERCOURSES. ALSO GARBAGE DUMPS.					
McCracken	BIRDS	***ICTINIA MISSISSIPPIENSIS***	MISSISSIPPI KITE	S	G5/S2B	1 0 0 0 0
	TALL FOREST, OPEN WOODLAND, PRAIRIE, SEMIARID RANGELAND, SHELTERBELTS, WOODED AREAS BORDERING LAKES AND STREAMS IN MORE OPEN REGIONS, SCRUBBY OAKS AND MESQUITE.					
McCracken	BIRDS	***LOPHODYTES CUCULLATUS***	HOODED MERGANSER	T	G5/S1S2B,S3S4N	0 1 0 0 0
	STREAMS, LAKES, SWAMPS, MARSHES, AND ESTUARIES; WINTERS MOSTLY IN FRESHWATER BUT ALSO REGULARLY IN ESTUARIES AND SHELTERED BAYS (B83COM01NA).					
McCracken	BIRDS	***RIPARIA RIPARIA***	BANK SWALLOW	S	G5/S3B	0 0 1 0 0
	OPEN AND PARTLY OPEN SITUATIONS, FREQUENTLY NEAR FLOWING WATER (B83COM01NA).					
McCracken	BIRDS	***TYTO ALBA***	BARN OWL	S	G5/S3	2 0 0 0 0
	OPEN AND PARTLY OPEN COUNTRY IN A WIDE VARIETY OF SITUATIONS, OFTEN AROUND HUMAN HABITATION (B83COM01NA). IN NORTHERN WINTER OFTEN ROOSTS IN DENSE CONIFERS; ALSO ROOSTS IN NEST BOXES IF AVAILABLE (A85MAR01NA).					

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McCracken	BIRDS	***VIREO BELLII***	BELL'S VIREO	S	G5/S2S3B	1 1 0 0 0
	DENSE BRUSH, MESQUITE, STREAMSIDE THICKETS, AND SCRUB OAK, IN ARID REGIONS BUT OFTEN NEAR WATER (B83COM01NA); MOIST WOODLAND, BOTTONLANDS, WOODLAND EDGE, SCATTERED COVER AND HEDGEROWS IN CULTIVATED AREAS. OPEN WOODLAND, BRUSH IN WINT.					
McCracken	MAMMALS	***MYOTIS AUSTRORIPARIUS***	SOUTHEASTERN MYOTIS	E	G3G4/S1S2	1 0 0 0 0
	THE SOUTHEASTERN MYOTIS USES PRIMARILY CAVES FOR HIBERNACULA AND SUMMER MATERNITY AND ROOSTING SITES.					
McCracken	MAMMALS	***MYOTIS SODALIS***	INDIANA BAT	E/LE	G2/S1S2	1 0 0 0 0
	INDIANA BATS USE PRIMARILY CAVES FOR HIBERNACULA, ALTHOUGH THEY ARE OCCASIONALLY FOUND IN OLD MINE PORTALS.					
McCracken	MAMMALS	***NYCTICEIUS HUMERALIS***	EVENING BAT	T	G5/S2S3	3 0 0 0 0
	THE EVENING BAT IS A COLONIAL SPECIES THAT ROOSTS IN TREES AND HOUSES. IT APPARENTLY MIGRATES SOUTHWARD IN WINTER.					
McCracken	COMMUNITIES	***FLOODPLAIN RIDGE/TERRACE FOREST***		N	S1	1 0 0 0 0
McCracken	COMMUNITIES	***WET PRAIRIE***		N	S1	1 0 0 0 0

EASTERN SHAWNEE TRIBE
OF OKLAHOMA

P.O. Box 350 · Seneca, MO 64865 · (918) 666-2435 · FAX (918) 666-3325

July 23, 2002

Department of Energy
Gary S. Hartman, EIS Document Manager
Oak Ridge Operations Office
PO Box 2001
Oak Ridge, Tennessee 37831

Re: Paducah Gaseous Diffusion Plant,
McCracken County, Kentucky
Portsmouth Gaseous Diffusion Plant.
Pike County, Ohio

Dear Mr. Hartman:

Thank you for notice of the referenced project. The Eastern Shawnee Tribe of Oklahoma is currently unaware of any documentation directly linking Indian Religious Sites to the proposed construction. In the event any items falling under the Native American Graves Protection and Repatriation Act (NAGPRA) are discovered during construction, the Eastern Shawnee Tribe request notification and further consultation.

The Eastern Shawnee Tribe has no objection to the proposed construction. However, if any human skeletal remains and/or any objects falling under NAGPRA are uncovered during construction, the construction should stop immediately, and the appropriate persons, including state and tribal NAGPRA representatives contacted.

Sincerely,

Charles Enyart

Charles Enyart, Chief
Eastern Shawnee Tribe of Oklahoma

PEORIA TRIBE OF INDIANS OF OKLAHOMA
118 S. Eight Tribes Trail (918) 540-2535 FAX (918) 540-2538
P.O. Box 1527
MIAMI, OKLAHOMA 74355

CHIEF
John P. Froman

SECOND CHIEF
Joe Goforth

July 26, 2002

Gary S. Hartman
Department of Energy
Oak Ridge Operations Office
P. O. Box 2001
Oak Ridge, Tennessee 37831

RE: DUF conversion facilities

Thank you for notice of the referenced project. The Peoria Tribe of Indians of Oklahoma is currently unaware of any documentation directly linking Indian Religious Sites to the proposed construction. In the event any items falling under the Native American Graves Protection and Repatriation Act (NAGPRA) are discovered during construction, the Peoria Tribe request notification and further consultation.

The Peoria Tribe has no objection to the proposed construction. However, if any human skeletal remains and/or any objects falling under NAGPRA are uncovered during construction, the construction should stop immediately, and the appropriate persons, including state and tribal NAGPRA representatives contacted.

John P. Froman
Chief

xc: Bud Ellis, Repatriation/NAGPRA Committee Chairman

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Log No. 71278
Date Received AUG 2 2002
File Code

TREASURER LeAnne Reeves
SECRETARY Hank Downum
FIRST COUNCILMAN Claude Landers
SECOND COUNCILMAN Jenny Rampey
THIRD COUNCILMAN Jason Dollarhide

July 26, 2002

TENNESSEE HISTORICAL COMMISSION
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
2941 LEBANON ROAD
NASHVILLE, TN 37243-0442
(615) 532-1550

Mr. Gary S. Hartman
Oak Ridge Operations/DP-80
Post Office Box 2001
Oak Ridge, Tennessee, 37831

RE: DOE, DUF MANAGEMENT/ETTP, OAK RIDGE, ANDERSON COUNTY

Dear Mr. Hartman:

In response to your request, received on Wednesday, July 24, 2002, we have reviewed the documents you submitted regarding your proposed undertaking. Our review of and comment on your proposed undertaking are among the requirements of Section 106 of the National Historic Preservation Act. This Act requires federal agencies or applicant for federal assistance to consult with the appropriate State Historic Preservation Office before they carry out their proposed undertakings. The Advisory Council on Historic Preservation has codified procedures for carrying out Section 106 review in 36 CFR 800. You may wish to familiarize yourself with these procedures (Federal Register, December 12, 2000, pages 77698-77739) if you are unsure about the Section 106 process.

Considering available information, we find that the project as currently proposed MAY AFFECT PROPERTIES THAT ARE ELIGIBLE FOR LISTING IN THE NATIONAL REGISTER OF HISTORIC PLACES. You should continue consultation with our office, designated consulting parties and invite them to participate in consultation, and provide us with appropriate survey documentation for review and comment. Please direct questions and comments to Joe Garrison (615) 532-1559. We appreciate your cooperation.

Sincerely,

Herbert L. Harper

Herbert L. Harper
Executive Director and
Deputy State Historic
Preservation Officer

HLH/jyg

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Log No. 72373 AUG 8 2002
Date Received
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United States Department of the Interior

FISH AND WILDLIFE SERVICE

Ecological Services
6950 Americana Parkway, Suite H
Reynoldsburg, Ohio 43068-4127

(614) 469-6923/FAX (614) 469-6919
March 16, 2004

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AMESQ
Log No. 151493
Date Received MAR 25 2004
File Code

Dr. James L. Elmore
Oak Ridge Operations Office
Department of Energy
P.O. Box 2001
Oak Ridge, TN 37831

Dear Dr. Elmore:

This is in response to your January 9, 2004 letter (which we received on February 10, 2004) and attached Biological Assessment of the Effects of Construction and Operation of a Depleted Uranium Hexafluoride Conversion Facility at the Portsmouth Site, January 2004, regarding informal consultation under section 7 of the Endangered Species Act for the proposed depleted uranium hexafluoride conversion facility at the Portsmouth Gaseous Diffusion Plant located in Pike County, Ohio.

In response to our September 23, 2002 letter, you prepared and submitted a Biological Assessment (BA). The BA addresses two species, the Indiana bat, a Federally listed endangered species which is listed in all 88 counties of Ohio, and the timber rattlesnake, which has not been assigned a Federal listing status, but the Service has initiated a pre-listing Conservation Action Plan to support State and local conservation efforts.

Your BA provides a thorough assessment of habitat for the above two species. The BA concludes that most of the site was found to have poor summer habitat for the Indiana bat because of the small size, isolation, and insufficient maturity of the few woodlands on the site. Potential summer habitat for the Indiana bat was identified and sampled during surveys conducted in 1994 and 1996. No Indiana bats were collected during those surveys. Nevertheless, the Department agreed that any unavoidable cutting of trees, associated with the proposed facility, with summer roost characteristics would be done between September 15 and April 15. Thus, the proposed action is not likely to adversely affect the Indiana bat. Also, the Department concludes that habitat for the timber rattlesnake is not present on the Portsmouth site; therefore, the propose action would not affect the rattlesnake species.

We concur with the Department of Energy's conclusion regarding the above two species. Regarding the Indiana bat, we recommend your continued efforts to avoid impacting summer bat habitat and/or enhance other areas which could be developed into good summer habitat. The Indiana bat surveys were conducted at least seven years ago; new surveys on the Portsmouth site could result in the capture of this species.

These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.), the Endangered Species Act of 1973, as amended, and are consistent with the intent of the National Environmental Policy Act of 1969 and the U. S. Fish and Wildlife Service's Mitigation Policy.

If you have questions, or if we may be of further assistance in this matter, please contact Ken Lammers at extension 15 in this office.

Sincerely,

Mary Knapp

Mary Knapp, Ph.D.
Supervisor

cc: ODNR, Div. of Wildlife, SCEA Unit, Columbus, OH
ODNR, Div. of RELM, Columbus, OH
Ohio EPA, Water Quality Monitoring, Columbus, OH

United States Department of the Interior
FISH AND WILDLIFE SERVICE
3761 GEORGETOWN ROAD
FRANKFORT, KY 40601

March 2, 2004

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AMESQ
Log No. 148070
Date Received MAR 6 2004
File Code

Mr. James L. Elmore, Ph.D.
U.S. Department of Energy
Oak Ridge Operations Office
P.O. Box 2001
Oak Ridge, Tennessee 37831

Subject: FWS #04-0582; Biological Assessment for the Indiana bat, Informal Consultation for the Proposed Depleted Uranium Hexafluoride Conversion Facility, McCracken County, Kentucky

Dear Dr. Elmore:

Thank you for your letter and enclosures transmitting a biological assessment (BA) for the federally endangered Indiana bat in association with the Proposed Depleted Uranium Hexafluoride Conversion Facility in McCracken County, Kentucky. Fish and Wildlife Service (Service) biologists have reviewed the document, and we offer the following comments.

Based on the information provided in the BA, tree clearing will be necessary in one of the three proposed facility construction locations. Of the proposed sites, Location A covers 35 acres, with approximately 10 acres of mature hardwood; Location B covers 59 acres, with the southern half occupied by mature hardwood forest; Location C is 53 acres, with its western half recently disturbed and occupied by young growth (trees and saplings). Once construction begins on the selected location, the facility will occupy approximately 10 acres with up to 45 acres potentially affected by construction activities.

The project area is known to have Indiana bat summer foraging and roosting habitat (of varying quality) in the vicinity. Indiana bats typically roost under exfoliating bark, in cavities of dead and live trees, and in snags (i.e. dead trees or dead portions of live trees). Trees in excess of 16 inches in diameter at breast height (DBH) are considered optimal for maternity colony roosts, but trees in excess of 9 inches DBH appear to provide suitable roosting habitat. Male Indiana bats have been observed roosting in trees as small as 3 inches DBH. The BA states that tree removal would occur between September 15th and April 15th. However, to be fully protective of Indiana bat summer roosting and foraging seasons, we recommend that trees only be removed between October 15th and March 31st. There are no known or suspected Indiana bat hibernacula within 10 miles of the project area, therefore, hibernacula mitigation measures will not be necessary.

Provided that tree and vegetation clearing occurs during the above-specified interval of October 15 to March 31, the Service concurs that the proposed action is "not likely to adversely affect"

the federally endangered Indiana bat. In view of this, we believe that the requirements of section 7 of the Endangered Species Act have been fulfilled for this project. Your obligations under section 7 must be reconsidered, however, if: (1) new information reveals that the proposed action may affect listed species in a manner or to an extent not previously considered, (2) the proposed action is subsequently modified to include activities which were not considered during this consultation, or (3) new species are listed or critical habitat designated that might be affected by the proposed action.

If you have any questions or if we can be of further assistance, please contact Anthony Velasco at (502)/695-0468 (ext.225).

Sincerely,

Virgil Lee Andrews, Jr.
Field Supervisor