



United States Department of the Interior

FISH AND WILDLIFE SERVICE
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September 25, 2012

Mr. David Waldner
Division of Environmental Analysis
Kentucky Transportation Cabinet
200 Mero Street
Frankfort, Kentucky 40622

Re: FWS 2012-B-0854; Programmatic Biological Assessment for Indiana bats throughout Kentucky; Programmatic Conservation Memorandum of Agreement for the Indiana bat

Dear Mr. Waldner:

This letter acknowledges the U.S. Fish and Wildlife Service's (Service) receipt of your September 6, 2012 letter transmitting an Indiana bat (*Myotis sodalis*) programmatic biological assessment (BA). Specifically, the Kentucky Transportation Cabinet (KYTC) is requesting concurrence on the implementation of the programmatic process described within the BA and on the Indiana bat effects determination of "not likely to adversely affect" for certain categories of projects. Another component of the proposed programmatic process is the development of a programmatic Indiana bat Conservation Memorandum of Agreement (CMOA) between the Service, KYTC, and the Federal Highway Administration (FHWA). The following comments represent the Service's views on the potential effects of the proposed action in accordance with section 7 of the Endangered Species Act of 1973, as amended (ESA) (16 U.S.C. 1531 *et seq.*).

According to the information provided, the proposed 2-tier, programmatic process (a) provides KYTC a stream-lined mechanism to identify those projects where a "no effect" determination for Indiana bats is anticipated through the use of a Habitat Assessment Manual (HAM), and (b) improves predictability when Indiana bat effects determinations for projects are either "may affect, not likely to adversely affect" or "may affect, likely to adversely affect". Tier 1 of the programmatic process involves the use of the HAM to determine if any Indiana bat summer and/or wintering habitat are present within the project vicinity. Projects that meet the criteria within the HAM where no habitat is identified would result in a "no effect" determination and would require no further consultation with the Service. If known or potential Indiana bat habitat is identified for a proposed project, then KYTC would proceed to Tier 2 of the programmatic process for further analysis.

The Service has reviewed the HAM and agrees with KYTC's Tier 1 process and associated analysis for determining if potential Indiana bat summer and/or winter habitat is present and would be affected by a specific project. KYTC's adherence to the criteria identified in the HAM

and Tier 1 process removes the need for KYTC to further consult with the Service on individual projects that result in a “no effect” determination. We recommend that KYTC maintain appropriate documentation to support its “no effect” determinations and make this information available to the Service and general public upon request.

For those projects that do not meet the criteria for a “no effect” determination, Tier 2 of the programmatic process provides several ESA compliance options as described below:

1. KYTC may review the project to determine if it meets the criteria for three specific categories/types of projects that KYTC has determined that are “not likely to adversely affect” the Indiana bat. These categories of projects are: 1) tree trimming projects that lie within 100 feet of the edge of pavement, 2) maintenance projects where less than two acres of habitat would be impacted within 500 feet of the edge of pavement, and 3) projects implementing and adhering to seasonal tree clearing between the dates of October 15 – March 31 where those projects occur entirely within “potential” Indiana bat habitat areas.

The Service concurs with KYTC’s determination of “not likely to adversely affect” the Indiana bat for the aforementioned three categories of projects. Our concurrence with your determination is primarily based on the information contained in KYTC’s programmatic BA, specifically the “Effects Analysis of the Proposed Action” and “Proposed Conservation and Mitigation Measures” sections (pg. 7 – 16). This analysis shows that any effects resulting from these activities are likely to be insignificant or discountable to Indiana bats. Based on this determination and our concurrence, KYTC can conduct these activities without the need to further consult on an individual project basis with the Service.

2. KYTC may also conduct a presence/absence survey and develop a BA for Service review that summarizes the survey results and any proposed minimization measures. As development and submittal of a BA constitutes informal consultation, KYTC did not provide an effect determination for this option in the Tier 2 portion of the programmatic approach. Instead, KYTC will make the necessary effects determinations upon submittal of BAs provided in association with this option, and no concurrence from the Service is necessary at this time.
3. For federally funded or authorized projects where a “may affect, likely to adversely affect” determination is made, KYTC may develop a BA and request, through the FHWA, that the Service enter into formal consultation and develop a biological opinion. The Service’s issuance of a biological opinion would complete ESA compliance for any projects where KYTC and FHWA entered into formal consultation.
4. For state-funded or other non-federal projects, KYTC can seek an incidental take permit associated with a USFWS-approved Habitat Conservation Plan pursuant to section 10(a)(1)(B) of the ESA.

5. For those projects where it is likely or probable that unavoidable adverse effects to Indiana bats could occur and where the other, above-referenced options that are typically available to KYTC to attain ESA compliance are impractical, KYTC may account for adverse impacts to Indiana bats by utilizing the incidental take provided via the attached programmatic CMOA.

The Service appreciates KYTC's and FHWA's efforts in developing this programmatic approach to addressing impacts to the Indiana bat and looks forward to continuing our partnership with both agencies. At this time, the Service would like to take the opportunity to point out some of the unique or interesting aspects of this collaborative process and the benefits that will likely be derived for the parties and the Indiana bat.

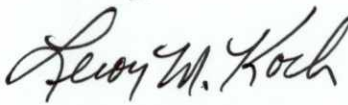
- (a) The process covers federal and non-federal projects. As a result, transportation projects in Kentucky will utilize a single process for ESA compliance, thus providing constant decision making and opportunities for time and cost savings.
- (b) The programmatic process allows the Service to address adverse effects, especially indirect and cumulative effects, which were not being consistently accounted for previously.
- (c) The CMOA portion of the process leverages funding that would otherwise be spent on consulting fees (i.e., surveys) and directs those mitigation funds toward Indiana bat recovery projects.
- (d) The process is flexible and provides other options for ESA compliance, especially during timeframes that surveys and seasonal tree clearing are not typically allowed.
- (e) The process will streamline workloads for the Service and KYTC/FHWA.
- (f) When compared to the traditional methods for addressing impacts of highway projects on Indiana bats and summer roosting habitat, the benefits of the programmatic process include a reduction in ESA compliance costs for KYTC. According to KYTC, ESA compliance for projects impacting Indiana bat habitat along existing highway corridors may experience up to a 50% reduction in compliance costs.
- (g) The process eliminates the need to develop project-specific consultations with the Service for certain categories of projects and for any projects where impacts are unlikely.
- (h) Conflicts have been reduced, relationships have improved, and our partnership has been strengthened.
- (i) Project predictability has increased for KYTC/FHWA.

(j) Recovery opportunities for Indiana bats in Kentucky have increased.

(k) The process has given FHWA the opportunity to provide tangible Section 7(a)(1) conservation for the Indiana bat.

If you have any questions regarding this consultation, please contact Phil DeGarmo of my staff at 502/695-0468 x110.

Sincerely,


for Virgil Lee Andrews, Jr.
Field Supervisor

Attachment

Cc: Jose Sepulveda, FHWA
Anthony Goodman, FHWA

**INDIANA BAT CONSERVATION MEMORANDUM OF AGREEMENT
AMONG THE
U.S. FISH AND WILDLIFE SERVICE – KENTUCKY FIELD OFFICE,
FEDERAL HIGHWAY ADMINISTRATION – KENTUCKY DIVISION,
AND KENTUCKY TRANSPORTATION CABINET**

This Conservation Memorandum of Agreement (MOA) is entered into by the United States Department of the Interior, U.S. Fish and Wildlife Service- Kentucky Field Office (Service), Federal Highway Administration – Kentucky Division (FHWA), and Kentucky Transportation Cabinet (KYTC) to promote the survival, conservation, and recovery of the Indiana bat (*Myotis sodalis*), a federally listed endangered species. Together FHWA and KYTC are referred to together as “FHWA and/or KYTC.” Together, the Service, FHWA, and KYTC are referred to as “Cooperators.” The obligations of FHWA and KYTC under this MOA are several but not joint.

Section 1: PURPOSE AND OBJECTIVES

The Indiana bat is a federally listed endangered species native to a large portion of the eastern United States, including the Commonwealth of Kentucky. This MOA (a) establishes a framework to considering and evaluating potential impacts to Indiana bats that may result from highway projects and (b) will implement recovery focused conservation measures that will be undertaken by the Cooperators and afford a measurable conservation benefit for the Indiana bat consistent with the Service’s Indiana Bat Mitigation Guidance (Guidance) dated January 3, 2011, which is hereby incorporated by reference. These measures will be implemented in association with qualified project-specific impacts as detailed in section 4 of this MOA. This MOA shall define the specific obligations of the Cooperators, and all measures will be implemented according to the terms of this MOA. The Cooperators understand and intend that the benefits resulting from this MOA may also provide conservation benefits for other federal protected species and native fish and wildlife. Although the projects covered by this MOA, both individually and collectively, are likely to result in adverse effects on Indiana bats, the efforts promoted by this MOA would promote the survival, conservation, and recovery of the Indiana bat by providing tangible benefits to the Indiana bat beyond those that typically would be required or expected to occur during either the Endangered Species Act (ESA) section 7(a)(2) consultation or ESA section 10(a)(1)(B) regulatory processes.

Section 2: AUTHORITY

This MOA is hereby entered into under the authorities of the Endangered Species Act (16 U.S.C. 1531 *et seq.*), Fish and Wildlife Act of 1956 (16 U.S.C. 742a. *et seq.*), and the Fish and Wildlife Coordination Act (16 U.S.C. 661 *et seq.*). Section 5 of the ESA provides that, “The Secretary...shall establish and implement a program to conserve fish, wildlife, and plants, including those which are listed as endangered species or threatened species...” and “shall utilize land acquisition and other authority under the

Fish and Wildlife Act, as amended, and the Migratory Bird Conservation Act, as appropriate". Section 7(a) (1) of the ESA further directs Federal agencies to "utilize their authorities in furtherance of the purposes of this Act [ESA] by carrying out programs for the conservation of endangered species and threatened species." The Fish and Wildlife Act of 1956 provides that the Secretary shall "...take such steps as may be required for the development, advancement, management, conservation, and protection of fish and wildlife resources...". Finally, the Fish and Wildlife Coordination Act states that the Secretary is authorized "to provide assistance to, and cooperate with, Federal, State, and public or private agencies and organizations in the development, protection, rearing, and stocking of all species of wildlife, resources thereof, and their habitat..."

The authorization for any incidental take of the Indiana bat that results from impacts associated with qualified project(s), as defined in section 4, is provided in the incidental take statement of the Service's intra-Service biological opinion (Appendix A) issued by the Service pursuant to section 7 of the ESA, which is incorporated herein by reference. The biological opinion covers the Service's development of and participation in conservation agreements for the Indiana bat, which includes this MOA, that are based on implementation of the Guidance and provides incidental take authorization of Indiana bats in the form of up to 2,500 acres of forested Indiana bat habitat per year through January 31, 2016.

Section 3: STATEMENT OF MUTUAL INTEREST

The mission of the Service is to work with others to conserve, protect, and enhance fish, wildlife, and plants and their habitats for the continuing benefit of the American people. The Service's major responsibilities are for endangered species, threatened species, migratory birds, certain marine mammals, and freshwater and anadromous fish. The Service recognizes the ability and interest of FHWA and/or KYTC to contribute to the survival, conservation, and recovery of the Indiana bat, and recognizes FHWA and/or KYTC as a partner in these efforts for the species. FHWA and/or KYTC recognizes the Service's mission and its interest in developing partnerships to protect, restore, and manage important habitats on private and public lands for federal listed species. The Cooperators understand the collaboration for this MOA and its underlying approach to species conservation is voluntary.

Section 4: DESCRIPTION OF QUALIFYING PROJECTS

The information relating to qualified projects in Section 4 of this MOA was derived from KYTC's August 2012 Programmatic Biological Assessment (BA); additional project specifications, maps, and associated documents are provided with the aforementioned BA. FHWA and/or KYTC maintain and construct a wide variety of transportation infrastructure projects on an annual basis within 120 counties in Kentucky. Transportation projects are generally similar in the nature of their activity and their potential to cause adverse effects to Indiana bats. FHWA and/or KYTC have provided the Service with a list of project types which are incorporated in this MOA (see Appendix

B). Various steps are involved in the development of these types of projects, and these projects are generally conducted in phases that are tied directly to funding authorization. The phases used for project development are: Planning, Preliminary Design and Environmental, Detailed Design, and Construction. Not all transportation activities follow this phased process of project development and are considered as other KYTC actions. Examples of these types of actions are small scale improvement projects such as maintenance work and emergency repairs that do not require a planning or detailed design phase. The type of funding source (state or federal) does not affect these phases of project development, or the applicability of the MOA for a specific project use.

4.1 Projects Not Included in This MOA

The following project types will result in “no effect” on Indiana bats or are “not likely to adversely affect” Indiana bats. This MOA, therefore, serves as KYTC’s and/or FHWA’s documentation of ESA compliance on such projects.

4.1.1 Seasonal Tree Clearing in Potential Indiana Bat Habitat

The Service has determined, based on the technical and process-related information provided in KYTC’s BA, that projects requiring the removal of Indiana bat summer habitat but meeting both of the following criteria, are “not likely to adversely affect” the Indiana bat:

- 1) The entire project occurs wholly within areas identified as Indiana bat “potential” habitat. Indiana bat habitat is “known” habitat if the Service has confirmed the presence of Indiana bats within a specific area; all other areas are considered “potential” habitat areas based on the lack of Indiana bat occurrence data.
- 2) FHWA and/or KYTC commit to seasonal tree clearing, which restricts the removal of forested Indiana bat habitat to the period between the dates of October 15 – March 31 of each year.

KYTC’s adherence to these criteria removes the need for KYTC to further consult on these types of projects on an individual basis with the Service. As a result, KYTC and/or FHWA will have fulfilled their ESA compliance responsibilities relative to Indiana bat summer habitat on such projects.

4.1.2 Tree Trimming

The Service has determined that tree trimming activities, which are defined in the Programmatic BA and will occur within 100 feet of a paved surface, are “not likely to adversely affect” the Indiana bat. Based on this determination, FHWA and/or KYTC can conduct this activity without the need to further consult on an individual basis with the Service and without a mitigation requirement. As a result, KYTC and/or FHWA will have fulfilled their ESA compliance responsibilities relative to Indiana bat summer habitat.

4.1.3 Maintenance Activities

The Service has determined, based on the analysis and process-related information in KYTC's BA, that maintenance projects resulting in less than two acres of habitat alteration or removal within the right of way along an existing highway and within 500 feet of the paved surface of the road, are "not likely to adversely affect" the Indiana bat. As a result, FHWA and/or KYTC can conduct these types of activities without the need to further consult on an individual project basis with the Service. As a result, KYTC and/or FHWA will have fulfilled their ESA compliance responsibilities relative to Indiana bat summer habitat.

4.1.4 Other Project Types

The Service has determined that certain activities within the following project development phases of projects identified in Appendix B, are those that are most likely to have an adverse effect on Indiana bats, thus resulting in a "may affect, likely to adversely affect" effects determination for the Indiana bat: Detailed Design, Construction Phase, Emergency Actions, and Maintenance Projects. For the purposes of this Agreement, Maintenance Projects likely to result in adverse effects are defined as those that remove more than two acres of Indiana bat habitat beyond areas that have been historically maintained immediately adjacent to the roadway.

4.2 Qualifying Projects

For those projects which may adversely affect the Indiana bat, FHWA and/or KYTC shall quantify the acreage of suitable habitat to be impacted and implement the appropriate minimization and mitigation measures as set out in section 6.

If FHWA and/or KYTC identifies a project which may adversely affect the Indiana bat where the activities proposed are not substantially reflected by one of the project types identified in Appendix B, FHWA and/or KYTC shall contact the Service in writing for an evaluation of the project to determine if the differences are such that project-specific consultation outside of this MOA is warranted. The Service shall provide this determination to FHWA and/or KYTC in writing. If the Service does not respond within 30 calendar days of FHWA and/or KYTC's request, then FHWA and/or KYTC can consider the project eligible under this MOA.

The Service, in its January 3, 2011 Guidance, has determined that certain groups of impacts will require project-specific review by the Service to assess the appropriateness of the minimization and mitigation measures. As outlined in the Guidance and for the purpose of this MOA these include:

- Projects resulting in the loss of more than 250 acres of Indiana bat habitat
- Projects occurring within 1 mile of priority 1 or 2 hibernacula
- Projects occurring within ½ mile of priority 3 or 4 hibernacula
- Projects resulting in impacts to known maternity habitat between June 1 and July 31. Limited clearing during this time may be approved only after a detailed survey to ensure that no primary maternity roosts are removed during this sensitive period

Additionally, any qualified projects that cross the Kentucky state line and terminates no more than 20 miles beyond the Kentucky border may be considered for inclusion under this MOA. Express written approval from the adjacent state's Service Field Office is required and may be provided programmatically or by project-specific approval. If approval is provided programmatically by an adjacent state's Service Field Office, then approval of qualified bi-state projects will not require project-specific approval.

Project-specific impacts requiring project-specific review shall be coordinated with the Service as outlined in section 6.1. The map and any supporting information provided to FHWA and/or KYTC under section 6.10 shall identify any geographical areas that fall into this category.

The total acreage of adverse effects to the Indiana bat for the duration of this MOA shall not exceed 1,200 acres. This acreage shall be divided into calendar year increments of 300 acres. This annual acreage may be modified annually at the discretion of the Service. If FHWA and/or KYTC determine that additional acres are needed, and the Service determines that those additional acres are available, the annual allotment may be increased. Additionally, the Service reserves the right to reduce the amount of acres available to FHWA and/or KYTC for a given year if, after consultation with FHWA and/or KYTC to identify project plans for the remainder of the year, the Service determines that FHWA and/or KYTC will not use the full amount available to them. The Service must approve any modification of the annual acreage in writing.

Qualified projects that exceed the allowed acreage of impact or that will impact caves, portals, or mine adits suitable for use by Indiana bats are not covered under this MOA, unless specifically authorized in writing by the Service. If FHWA and/or KYTC discovers a cave, portal or mine adit within a project corridor or that will be affected by a proposed project, FHWA and/or KYTC shall follow the obligations set forth in section 6.8.

Section 5: EFFECTIVE DATE AND TERMS OF AGREEMENT

This MOA is effective on the last date signed below, and shall remain in effect until January 31, 2016, which is the date the Service's intra-Service biological opinion expires, except as modified in section 8 hereof.

Section 6: SPECIFIC OBLIGATIONS OF THE COOPERATORS

FHWA and/or KYTC and the Service agree to fulfill the following conditions to minimize potential incidental take of the Indiana bat, compensate for adverse effects on the Indiana bat that may result from the implementation of the proposed project(s), and promote the survival, conservation, and recovery of the Indiana bat:

6.1 FHWA and/or KYTC agree(s) to consult with the Service regarding certain projects that are identified in the Service's Guidance and shown as the bulleted items in section 4 of this MOA so the Service may determine if projects likely to result in these impacts are appropriate for inclusion under this MOA. The Service shall evaluate the

proposed projects to assess the appropriateness of the minimization and mitigation measures and shall permit the inclusion of such projects under the MOA if it determines that the minimization and mitigation measures are adequate. The Service shall notify FHWA and/or KYTC of its determination in writing.

6.2 Unless specified otherwise within this MOA, FHWA and/or KYTC accept(s) that the Indiana Bat Mitigation Guidance dated January 3, 2011, will be used as the basis for: explanation of terms, identification of certain priority habitats, determination of the standard tree canopy size for the single tree method, determination of situations which require direct consultation with the Service, acceptability of mitigation measures, and for calculation of impacts and mitigation measures, which includes the purchase, protection, or acquisition of properties that are conducive to Indiana bat conservation efforts, the direct contribution to the Indiana Bat Conservation Fund (IBCF), or other alternative measures, as may be applicable for each project.

Minimization and mitigation measures, as described in the Indiana Bat Mitigation Guidance and outlined in section 6.5 and section 6.7, shall be undertaken prior to the construction of qualified projects covered under this MOA. The "exception" to this shall be emergency actions, and/or projects otherwise carried out by FHWA and/or KYTC that do not require a project-specific letting by KYTC. Projects determined to be "emergency actions" shall be coordinated with the Service prior to and/or concurrently with implementation of the project. Immediately following project completion, FHWA and/or KYTC will report all projects identified as "exceptions" to the Service as part of the accounting ledger outlined in section 6.6.

6.3 Mitigation measures required for projects authorized under this MOA shall be calculated in accordance with the matrix provided in Appendix C of this MOA. Impact acreage shall be calculated as follows:

- **Project-Specific Basis:** The acreage of the project area shall be determined by (a) drawing a polygon around the various habitat types (as defined by the Guidance) that will be impacted and determining the acreage within the polygon(s), or (b) by multiplying the number of trees that will be impacted by 0.09 acres (this method is only for use in areas containing isolated and/or widely spaced trees of 20 or less), or (c) a combination of the two aforementioned methods. The total impact acreage for each habitat type shall then be multiplied by the appropriate multiplier from the mitigation matrix. (See Appendix C)
- **For projects categorized as Emergency Actions:** The acreage of impact shall be determined by counting the number of potentially suitable primary maternity roost trees that will be removed. The number of trees shall then be multiplied by 0.09 to determine the mitigation acreage. In areas with a high density of potentially suitable primary maternity roost trees, FHWA and/or KYTC may choose to calculate the acreage using a polygon. This acreage shall then be multiplied by the appropriate multiplier from the

mitigation matrix for the impact type. For actions requiring coordination with the Service, FHWA and/or KYTC shall coordinate with the Service in a timely fashion.

The Service shall make staff available at any time to provide guidance and assistance in determining impact amounts and mitigation acreages.

6.4 FHWA and/or KYTC will consider projects within potential habitat types as "existing alignment" if more than 50 percent of the total disturbance area associated with the project is within 500 feet of the edge of pavement of the road that is being improved. Projects will be considered as "new alignment" if more than 50 percent of the total disturbance area associated with the project is beyond 500 feet of the edge of pavement of the road that is being improved. Project impacts that are separate from, but associated with, the linear project (i.e., KYTC designated waste areas, borrow sites, staging areas, etc.) shall be considered and included in the calculation of disturbance area. FHWA and/or KYTC will use the above project definition of existing and new alignments to determine the appropriate multiplier from the mitigation matrix (see Appendix C) for project impacts that occur entirely within potential habitat types.

If designation of waste areas, borrow sites, etc. is left to project contractors, KYTC will include a provision in the contract advising the contractor that further consultation with the Service may provide the contractor with protection under Section 10 of the Endangered Species Act.

6.5 FHWA and/or KYTC may provide funding to other entities or organizations for the purchase and protection of properties that are conducive to Indiana bat conservation efforts, or FHWA and/or KYTC may directly acquire properties that are conducive to Indiana bat conservation efforts in lieu of IBCF contributions and in accordance with the Guidance. Specific coordination with the Service prior to mitigation approval is required. If acceptable, the Service will respond in writing identifying the amount of mitigation approved and means of debiting against project impacts.

6.6 FHWA and/or KYTC shall provide to the Service an accounting ledger that shall identify a monthly list of qualified projects covered under the MOA specific to each month's project letting schedule, including those where FHWA and/or KYTC determined that mitigation measures were not required. This ledger shall follow the format provided in Appendix D, and shall be submitted to the Service within seven calendar days following each month's project letting.

KYTC will maintain records for each project covered under the MOA. Documentation shall include appropriate scaled project location aerial maps that clearly define the project limits, impact areas that were covered under the MOA, impact areas with acreages depicted, and the Indiana bat habitat type within which the project occurred.

6.7 If FHWA and/or KYTC choose to contribute to the IBCF as a minimization and mitigation measure for impacts authorized under this MOA, those contributions shall be made no less frequently than on a monthly basis, with payments submitted no later than 30 days after the receipt of invoice from the Kentucky Natural Lands Trust (KNLT). Contributions to the IBCF should be issued to the KNLT at 433 Chestnut Street, Berea, Kentucky 40403 with IBCF noted in the memo line. Contributions made to the IBCF shall be used to achieve the Service's conservation strategy and mitigation and minimization goals for the Indiana bat in Kentucky.

6.8 If, after initiating construction on a project covered under this Agreement, FHWA and/or KYTC identifies a cave, portal, or mine adit within the project corridor or that is likely to be affected by the project, FHWA and/or KYTC shall immediately contact the Service for an evaluation of the site as potential suitable winter habitat for the Indiana bat. The Service shall respond to FHWA and/or KYTC's request as soon as possible

6.9 The Service shall have the opportunity to audit any FHWA- and/or KYTC-made determination of impact or mitigation and to evaluate the accuracy of that determination with a visit to the project site prior to, during, or following project implementation. In addition, the Service may request a listing of past, present, and planned projects for which FHWA and/or KYTC personnel have made determinations under the terms of this MOA for the purpose of evaluating whether adequate documentation exists to support the determination and whether the procedures used in the determination were in compliance with the terms of the MOA. Upon receipt of such request, FHWA and/or KYTC shall provide the requested information within 30 calendar days.

6.10 The Service shall provide FHWA and/or KYTC with a map of known habitat (as defined in the Guidance) and shall provide technical assistance as needed to determine the location of a project in relation to known habitat. The Service shall update this information on an annual or more frequent basis, and FHWA and/or KYTC shall utilize the most recent version of the map provided by the Service to evaluate the potential impacts of proposed projects.

Due to the potential for changes to the map occurring between FHWA and/or KYTC's initial project evaluation and specific project construction letting, FHWA and/or KYTC will re-evaluate all proposed project locations prior to each month's project letting schedule, to ensure that the most recent version of the map and known habitat is utilized in the analysis of potential impacts of proposed projects on specific Indiana bat habitat type areas. Projects not yet constructed where mitigation requirements were completed prior to the letting schedule, and it was determined that the habitat type utilized in the analysis of potential impacts has changed, shall be coordinated with the Service in writing to adjust the appropriate mitigation requirement, if any.

6.11 FHWA and/or KYTC may elect to survey potential habitat type areas for the presence or probable absence of Indiana bats. This survey must follow the most recent (i.e., at the time of survey) Indiana bat Survey Guidance for the Commonwealth of Kentucky. If the survey results in a probable absence determination, implementation of minimization and mitigation measures is not required for that project. Presence/absence surveys for projects that lie entirely or partially within areas of known Indiana bat habitat may not be useful in determining affects to the species. FHWA and/or KYTC may wish to consult with the Service prior to conducting such surveys, to assess the importance that such survey results may have in making affect determinations.

6.12 When defining the project-specific action area, FHWA and/or KYTC will consider all interrelated and interdependent actions, as defined by the ESA, and incorporate those areas as part of the project-specific action area that is under review pursuant to this MOA.

6.13 Unless determined by a qualified biologist that the bridge is not suitable habitat, FHWA and/or KYTC will ensure that, prior to construction/deconstruction of bridge replacement projects, a complete inspection of the underside of the bridge will be conducted for use or signs of use by bats. If it is determined that bats are present, then FHWA and/or KYTC will coordinate with the Service to determine if additional avoidance or minimization measures are necessary.

6.14 The Service and FHWA will take the necessary steps to ensure that projects covered by this MOA meet federal requirements for compliance with the National Environmental Policy Act (NEPA) and the ESA. Nothing in this MOA shall affect the NEPA obligations, if any, of any other Federal agency with respect to work conducted by FHWA and/or KYTC.

With regard to the ESA, the attached biological opinion (Appendix A) authorizes incidental take of Indiana bats associated with habitat removal. This incidental take authorization requires implementation of the Reasonable and Prudent Measures and Terms and Conditions of the biological opinion. As such, sections 6.1, 6.2, 6.3, 6.6, 6.7 6.8 and 6.9 are included in this MOA because they are or support recovery focused conservation measures and the Reasonable and Prudent Measures and Terms and Conditions of the biological opinion. FHWA and/or KYTC acknowledge that any divergence from the measures and conditions of the above-referenced sections may result in a violation of section 9 of the ESA.

6.15 FHWA and/or KYTC will take the necessary steps to ensure that projects covered under this MOA meet federal requirements for compliance with the National Historic Preservation Act (NHPA).

6.16 FHWA and/or KYTC agree to project-specific reviews by the Service for any projects within the scope of this MOA that may adversely affect unique geographic characteristics such as historic or cultural resources, park, recreation or refuge lands, wilderness areas, wild or scenic rivers, sole or principal drinking water aquifers, prime

farmlands, wetlands, floodplains, or ecologically significant or critical areas, including those listed on the Department of the Interior National Register of Natural Landmarks. A project specific review shall not be required if the impacts to these features have been properly addressed through consultation with the appropriate agencies during the federal NEPA process.

6.17 Surveys for other federally listed species will not be required of the Cooperators as a condition to participating in the Agreement. However, if other federally listed or candidate species are discovered or are likely to occur within areas to be impacted by qualified projects, the Cooperators agree to meet and discuss the implications of these species relative to the qualified projects and this Agreement and to seek cooperative solutions to address any adverse effects that may occur to these species so that compliance with the ESA can be maintained. As a result, additional ESA consultation may be required.

In summary, this MOA provides recovery based conservation benefits for the Indiana bat in the form of habitat protection and/or voluntary contributions to the IBCF which in turn will fund habitat protection, conservation, restoration and/or priority monitoring and research projects for the Indiana bat.

Section 7: COOPERATION

Both the Service and FHWA and/or KYTC acknowledge that it is their desire to facilitate the processes set forth in this MOA by open communication and cooperation. The parties agree to exercise their rights and obligations under this MOA in good faith. If at any time FHWA and/or KYTC have questions regarding this MOA or the Guidance, the Service agrees to make itself available for consultation in a timely fashion.

Section 8: MODIFICATION OR TERMINATION

Modifications to this MOA may be proposed by either party in writing and will become effective upon being reduced to a written instrument and being signed by duly authorized representatives of the Cooperators.

FHWA and/or KYTC or the Service may terminate this MOA at any time prior to its expiration on January 31, 2016 upon written notification from the other signatory party. Termination of this MOA does not terminate the parties' obligations under section 6 of this MOA for previously authorized actions of the FHWA and/or KYTC.

Section 9: OTHER PROVISIONS

9.1 The Cooperators hereto agree that they shall be liable for the negligent or wrongful acts or omissions of their employees, agents, and assigns only to the extent liable under applicable law. Nothing in this MOA shall be interpreted or construed as constituting a waiver by any party of sovereign immunity or statutory limitation on liability.

9.2 Each provision of this MOA shall be interpreted in such a manner as to be effective and valid under applicable law, but if any provision of the MOA shall be prohibited or invalid under application law, such provision shall be ineffective to the extent of such prohibition or invalidity, without invalidating the remainder of such provision or the remaining provisions of this MOA.

9.3 No provision of this MOA shall be interpreted as or constitute a commitment of requirement that either party take actions in contravention of applicable laws, either substantive or procedural.

9.4 Nothing in the MOA shall be interpreted as or constitute a commitment or requirement that the Service obligate or pay funds in contravention of the Anti-Deficiency Act, 31 U.S.C. §1341, or any other law or regulation.

9.5 This MOA in no way restricts the private property rights of FHWA and/or KYTC except to the extent necessary to comply with applicable federal statutes referenced above as part of this MOA (i.e., ESA, etc.)

9.6 FHWA and/or KYTC is encouraged to adopt and enforce on-the-job seat belt use and policies and programs for their employees when operating company-owned, rented, or personally-owned vehicles. These measures include, but are not limited to, conducting education, awareness, and other appropriate programs for their employees about the importance of wearing seat belts and the consequences of not wearing them.

9.7 Third Parties Not to Benefit: This MOA does not grant rights or benefits of any nature to any party not named or identified in this MOA.

9.8 Merger: This MOA contains the sole and entire MOA of the parties. No oral representations of any nature form the basis of or may amend this MOA. This MOA may be extended, renewed or amended only when agreed to in writing by the parties.

9.9 Waiver: Failure to enforce any provision of this agreement by either party shall not constitute waiver of that provision, nor a waiver of a claim for subsequent breach of the same type, nor a waiver of any other term of this agreement. The waiver of any provision must be express and evidenced in writing.

9.10 Assignment: No part of this agreement shall be assigned to any other party.

9.11 Insurance and Indemnity: To the extent permitted by law, FHWA and/or KYTC will be fully responsible for the acts and omission of its representatives, employees, and contractors connected with the performance of this agreement. In furtherance of this agreement, FHWA and/or KYTC will:

- Subject to the availability of its funding for the specific purposes of this provision, FHWA and/or KYTC will indemnify the United States against all claims, fines, damages, judgments, and expenses arising from any omission or activity of FHWA and/or KYTC, its representatives, employees, or

contractors arising in conjunction with this agreement; provided, however, there shall be no obligation to indemnify the United States for its acts or omissions.

- Cooperate with the Service in the investigation and defense of any claims that may be filed against the Service arising out of the activities of FHWA and/or KYTC, its representatives, contractors, or its employees.

9.12 Assumption of Liability: Whether or not the Service has the right to review and approve any designs, plans, documents, or work produced under this agreement, and whether or not the Service exercises such rights, the Service will have no liability for any review or approval or failure to review and approve. All liability for the accuracy, quality, and safety of any designees, plans, documents or work remains with FHWA and/or KYTC.

9.13 Publicity and Government Endorsement: FHWA and KYTC shall not publicize or otherwise circulate, promotional material (such as advertisements, sales brochures, press releases, speeches, still and motion pictures, articles, manuscripts or other publications) which states or implies governmental, Departmental, bureau, or government employee endorsement of a product, service, or position which FHWA or KYTC represents. No release of information relating to this MOA may state or imply FHWA's or KYTC's work product to be superior to other products or services.

All information submitted for publication or other public releases of information regarding this project shall carry the following disclaimer:

"The views and conclusions contained in this document are those of the authors and should not be interpreted as representing the opinions or policies of the U.S. Government. Mention of trade names or commercial products does not constitute their endorsement by the U.S. Government."

FHWA and KYTC must obtain prior Government approval for any public information releases concerning this MOA, which refer to the Department of the Interior or any bureau or employee (by name or title). The specific text, layout photographs, etc. of the proposed release must be submitted with the request for approval.

Section 10: NOTICES AND AUTHORIZED REPRESENTATIVES

Notices shall be made in writing to the persons at the addresses listed below and may be given by personal delivery, mail or by telecopy (FAX) to the duly authorized representatives listed below. Should there be changes in a party's representative, each shall notify the other party, in writing, within thirty (30) days of the change in their representative.

Acceptance of the terms of the MOA is signified by the signatures below. The parties hereto have executed this MOA as of the last written date below.

US Fish & Wildlife Service
Virgil Lee Andrews Jr.
Field Office Supervisor
330 W Broadway, Rm 265
Frankfort, Kentucky 40601
502-695-0468 (telephone)
502-695-1024 (fax)

Kentucky Division, Federal
Highway Administration
Mr. Jose Sepulveda
Division Administrator
330 W Broadway Street
502-223-6721 (telephone)
502-223-6735 (fax)

Kentucky Transportation
Cabinet
Mr. Michael W. Hancock
200 Mero Street
Frankfort, KY 40622
502-564-7250 (telephone)

U.S. DEPARTMENT OF
THE INTERIOR
FISH AND WILDLIFE
SERVICE

FEDERAL HIGHWAY
ADMINISTRATION
KENTUCKY DIVISION

KENTUCKY
TRANSPORTATION
CABINET

BY: Virgil Lee Andrews

BY: Jose Sepulveda

BY: Michael W. Hancock

TITLE: Field Supervisor

TITLE: Division Administrator

TITLE: Secretary

DATE: 9/6/12

DATE: 9-6-12

DATE: 9/6/12

APPROVED AS TO
FORM AND
LEGALITY

John S. Hoff

KYTC OFFICE OF
LEGAL SERVICES

DATE: 9/6/12

APPENDIX A

FINAL BIOLOGICAL OPINION (electronic)

APPENDIX B

PROJECT TYPE DESCRIPTION

Table 1. MITIGATION MULTIPLIER BY HABITAT TYPE AND SEASON

Habitat Type	Spring	Summer	Fall	Winter
Wetland	1.5	1.5	1.5	1.5
Shrubland	1.5	1.5	1.5	1.5
Grassland	1.5	1.5	1.5	1.5
Open Field	1.5	1.5	1.5	1.5
Forest	1.5	1.5	1.5	1.5
Water	1.5	1.5	1.5	1.5
Other	1.5	1.5	1.5	1.5
Total	1.5	1.5	1.5	1.5

The mitigation multiplier is used to adjust the number of acres of habitat that must be restored or created to offset the loss of habitat. The multiplier is based on the habitat type and the season of the project. The multiplier is 1.5 for all habitat types and seasons.

The multiplier is 1.5 for all habitat types and seasons.

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The multiplier is 1.5 for all habitat types and seasons.

Appendix B

Projects eligible for usage of Programmatic CMOA

1. Bike/pedestrian Facility
2. Bridge Only
3. Bridge Painting
4. Bridge Rehab
5. Bridge Replacement
6. Bridge Widening
7. Bypass
8. Congestion Mitigation
9. Culvert Replacement
10. Curve Revision
11. Demolition
12. Drainage and Milling
13. Drainage Correction
14. Drainage Improvement
15. Edge Drains
16. Emergency Actions
17. Enhancement
18. Excess Material Sites
19. Ferry Operation
20. Fill Slip Repair
21. Flood Relief
22. Floodwall Protection
23. Grade and Drain
24. Grade and Drain and Surface
25. Guardrail Replacement
26. Herbicidal Spraying within ROW
27. Highway Maintenance
28. Interchange Lighting
29. Interchange Reconstruction
30. Industrial Access
31. Landslide Correction
32. Landslide Repair
33. Lighting
34. Maintenance
35. Major Bridge Repair
36. Major Widening
37. Minor Widening
38. New Interchange
39. New Route
40. Noise Barrier
41. Other Highway Improvements
42. Overlay
43. Partial Grade and Drain
44. Pavement Markers
45. Pavement Rehab
46. Right of way fence
47. Reconstruction
48. Recreational Trail Projects
49. Rehab
50. Relocation
51. Renovation
52. Repair ROW fence
53. Rest Area Rehab
54. Resurfacing
55. Retention Basin
56. Rideshare
57. Rock-fall Mitigation
58. Railroad Protection Device
59. Safety Hazard Elimination
60. Safety Railroad Protection
61. Safety Railroad Separation
62. Shoulder and Guardrail
63. Sign supports
64. Signal system improvement
65. Signing
66. Spot Improvements
67. Structure Work Only
68. Substructure Work
69. Transportation Enhancement
70. Tunnel Maintenance
71. Water and Sewer Lines
72. Weigh Station Rehab
73. Widening and Rehab
74. Widening and Overlay
75. Widening and Resurface

APPENDIX C

PROJECT TYPE DESCRIPTION

Table 1. MITIGATION MULTIPLIER BY HABITAT TYPE AND SEASON

	November 15- March 31 (all habitats unoccupied)	April 1-August 15 (swarming unoccupied*; potential, maternity** and non-maternity occupied)	August 16- October 14 (swarming and potential occupied; maternity and non-maternity unoccupied)	October 15- November 14 (swarming occupied; potential, maternity and non-maternity unoccupied)
Known Maternity +P1&2 swarming	2.5	3.0 (4.0)*	3.5	3.5
Known Maternity +P3&4 swarming	2.0	2.5 (3.5)*	3.0	3.0
Known non-maternity +P1&2 swarming	2.0	2.5 (3.5)*	3.0	3.0
Known non-maternity +P3&4 swarming	1.5	2.0 (3.0)*	2.5	2.5
Swarming P1&2	1.5	2.0 (3.0)*	2.5	2.5
Swarming P3&4	1.0	1.5 (2.5)*	2.0	2.0
Known maternity	1.5	2.0	1.5	1.5
Known non-maternity	1.0	1.5	1.0	1.0
Potential	0.5(0.0)****	1.0 (0.5)***	1.0(0.5)***	0.5(0.0)****

*Spring emergence occurs close to the hibernacula entrances in the early spring with females emerging in early to mid April and males emerging in late April-early May. Swarming habitat within 1 mile of P1 & P2 hibernacula entrances and within 1/2 mile of P3 & P4 entrances will be considered occupied between April 1 and May 14. Projects within these areas require project-specific evaluation by the Service and may require additional mitigation.

**Projects within known maternity habitat that occur from June 1 through July 31 require project-specific evaluation by the Service.

***Projects that occur entirely within potential areas and are determined to be along an existing alignment will mitigate with a multiplier of 0.5 if the impacts occur between April 1 and October 14.

****Projects that occur entirely within potential areas, regardless if they are determined to be existing or new alignment, will not be required to mitigate for impacts if the clearing of habitat occurs between October 15 – March 31.

APPENDIX D

ACCOUNTING LEDGER (Electronic)