

Scope of Services for Biological Studies

Threatened and Endangered Species Assessment

Bald Eagle Assessment

Migratory Bird Assessment

and

Waters and Wetlands Assessment

Updated January 2026

Threatened and Endangered Species Assessment will include:

- 1) Detailed guidance for completing the Biological Assessment Report is attached.
- 2) Follow the project review process outlined by the USFWS at <https://wwwS.fws.gov/office/oklahoma-ecological-services/project-reviews>
- 3) Review of federally listed, proposed and candidate species in Oklahoma at <https://ecos.fws.gov/ecp/report/species-listings-by-state?stateAbbrev=OK&stateName=Oklahoma&statusCategory=Listed>, and additional species information with USFWS updates available through links provided, including <https://www.fws.gov/office/oklahoma-ecological-services/species> and <https://www.wildlifedepartment.com/wildlife/threatened-and-endangerednd>
<http://obis.ou.edu/#/landing>
- 4) Review of federally designated critical habitat maps relative to the project's Action Area at <https://fws.maps.arcgis.com/home/webmap/viewer.html?webmap=9d8de5e265ad4fe09893cf75b8dbfb77> and <https://ecos.fws.gov/ecp/report/table/critical-habitat.html>
- 5) USFWS federally listed, proposed and candidate aquatic species and aquatic dependent species watersheds and occupied water bodies of Oklahoma. Most (not all) species range data has changed in the last year and can be downloaded from USFWS species pages (a few like gray bat are still county wide, so you may use the pdfs for Gray bat (copy provided for reference, but these are not to be used for your watersheds maps. Recreate using the HUC11 data on the back of the pdf for Gray bat).
- 6) Create project in IPaC (Information for Planning and Conservation) and create an official species list ONLY after the boundaries are accurately defined, found at <https://ipac.ecosphere.fws.gov/user/login>
Operate from a Resource List until ready to finalize and create ONLY 1 official list for a project!
 - a) **Define the project boundaries by the ACTION AREA**, NOT by the Project Footprint (see #1 above). This can be generalized. So for example, include 6.2 miles downstream if the project is over a direct tributary to a listed fish species, include 0.25 miles for listed bird species, etc. If you need to edit or change your IPAC action area, expand the map on the project home page and there will be a link to edit/change the project area and upload a new one (for example, the Action Area shapefiles you may have created for your project.). Update the species list afterward to get species for the new area.
 - b) **Name the project using the JP number**. This is the only way for the reviewer to find this project when it has to be updated years later. ODOT Biological Division tracks every project, review, survey, etc. by the County and JP number!
 - c) **Provide a good description of the project activities**. As IPaC becomes more interactive and eventually more of the review steps become built into the system, the importance of a complete description will be ever more important.
 - d) **Add the following Natural Resources Program Managers as Project Members in IPaC to ALL your ODOT Projects before submitting for review:** elizabeth.nichols@ou.edu, amcyintyre@odot.org, ktaylor@odot.org AND jmulhouse@odot.org We can no longer request access to projects and must be specifically added to the project by the person who creates the project in IPaC.

- 7) Review of the Indiana bat and Northern long-eared bat FHWA programmatic, updated January 2025, available at <https://www.fws.gov/program/endangered-species/bat-consultation-conservation-strategy>; with **user's guide** and assistance for bridge/culvert assessments, IPaC key, etc, available at <https://www.fws.gov/media/users-guide-appendices-e-range-wide-programmatic-consultation-indiana-bat-and-northern-long>.
 - a) Bridge/Structure/Shed form, dated 3/2022, available at the above location is to be used for all projects with impacts to bats.
 - b) Summer survey guidance, dated 9/2025 at <https://www.fws.gov/library/collections/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines>
- 8) Contact Oklahoma Natural Heritage inventory of rare species database for any records of federally listed, proposed or candidate species, by uploading Project Footprint, or providing lat./long. of project end points, **ONLY** at <https://www.ou.edu/oknaturalheritage/request-data>
- 9) Field studies, and observations, of the proposed Project Footprint to determine its suitability as habitat for listed, proposed and candidate species, as well as habitat for all protected migratory birds, including Birds of Conservation Concern. **This includes a detailed assessment of aquatic habitats for listed fish and mussels.**
- 10) Bat Assessments. There have been recent (May 2025) range changes for most bats based on the most current survey data; this range will be updated by USFWS (thus likely expanded for TCB) based on annual survey data. Therefore, regardless of no listed bats on your IPAC species list, bridges, culverts and structures will continue to be assessed, identified, and mapped for bat signs and characteristics so that data is available years down the line when these projects go to let and the ranges have changed. Since you are looking at culverts and bridges for migratory birds, we ask that you also look for signs of bats and characteristics of the structures. We have had a number of bridges being used as maternity sites for non-listed bats all over the state, and that is information that ODOT needs to know as early as possible, since it could potentially impact design, letting schedules, etc.
 - a) Field assessment of **ALL existing bridges and culverts 3-ft or greater** in GROUND height (not the changing water level) for potential use by listed bat species within the Project Footprint and recorded individually on current USFWS Bridge/Culvert Inspection Forms. GPS or locate WHERE on structures there is evidence of bat use and describe in the Note section of the Biological Assessment structure assessment section; any bat signs will also be included on the Bridge, Culvert and Structure Map along with signs of migratory bird nests. The **Bat Bridge, Culvert and Structure Assessment Form** is the record of EACH structure assessed, it must include all structures 3-ft diameter/height and larger, and any barns, sheds, or other structures that may be removed during construction. Record using NBI# if bridge, or plan STA. # for culverts or structures (or NAD83 if no plans available), so this information can be used to help advise construction. DO NOT use survey Stationing since these are often not the same as what is found on ROW or other construction plans. These USFWS forms will be submitted separate from the Biological Assessment and placed into the figures after “flattening” the form fields so that they do not overwrite when multiple forms are joined.
 - b) If listed bats present on IPAC species list, also include:
 - i) Field assessment and measurement (in acres) of wooded foraging and roosting habitat within the Project Footprint and split out between 0-100, 100-300 and >300 feet from pavement of all treed habitat within the Project Footprint. Provide map and shapefiles of habitat, as well as the 1 mile buffer action area (these are also required map figures).
 - ii) Field pedestrian survey of the entire Project Footprint, as well as 30-ft buffer (if possible) when in a karst landscape, to identify any karst features; GPS any karst features observed.
 - iii) Photographs of each bridge, culvert or structure. There is some leeway here with culverts – if there are 20 3-ft culverts, for example, then photograph a representative of each type, as well as any that are sufficiently different when it comes to surrounding habitat.

- 11) Field assessment and measurement (in acres) of suitable American burying beetle habitat within the Project Footprint, if on species list. Provide map and shapefiles of habitat.
 - a) Updated Southern Plains Analysis Area and Conservation Lands found here: <https://ecos.fws.gov/ecp/species/66> as downloadable shp and in Reclassification document with 4(d), dated October 2020.
- 12) Lesser Prairie Chicken habitat suitability, with range and lek data downloads found at <https://www.sgpchat.org/> Please keep providing analysis for this species if it is on your species list, even though it's listing was vacated August 2025.
 - a) Include map of all lek buffers within 3 miles of the Project Footprint.
- 13) Pollinators – proposed and/or candidate species
 - A. Field assessment of suitable monarch butterfly habitat within the Project Footprint to include:
 - a. Presence of milkweed (*Asclepias sp.*) species specifically. Map and shapefiles of any milkweed habitat with >3 stems and address in effects section for the species.
 - B. Field assessment of suitable western fritillary habitat within the Project Footprint to include:
 - a. Presence of violet (*Viola sp.*) species specifically. Map and shapefiles of any violet habitat with >3 stems and address in effects section for the species.
 - C. Presence of flowering or potentially flowering nectar plants (*defined as forbs that can provide nectar for pollinators at some point in the growing season*).
 - D. Field assessment of additional native grassland habitat* within the Project Footprint and make sure its included in the Community Description and/or Effects sections.

**Native habitat may have the potential to provide suitable monarch, fritillary, and pollinator habitat during the growing season. Habitat such as grasslands dominated by invasive grass species, or woody thickets too dense to support herbaceous flowering vegetation would be considered unsuitable.*
- 14) If plans are available, provide station #s in the Biological Assessment where requested, and submit the Plans optimized/reduced with your project submittal.
- 15) **SOURCES:** Reference all sources used for the reports, including those cited in the document.
- 16) **MAPS:** 8.5x11 size. North must always point toward top of page and segmented maps (Fig. 1a, 1b, etc) must follow plan layout (e.g. south to north and west to east). Remove logos and other inclusions and callouts to minimize size of attachments in the submittal. Specifics on the maps to include are located within the Biological Assessment document itself.
- 17) **In the future we will convert over to an online Biological Assessment, currently being tested by the Natural Resources Program. When converting over to the online reporting tool, the Biological Assessment Guidance document attached will continue to provide precise directions for each section. Make sure to refer to it and the embedded directions when using the online Biological Assessment tool.**

Bald Eagle Habitat Assessment:

- 1) Review multiple sources for history of occurrences (ONHI primarily, Sutton Avian Research Center, and eBird <https://ebird.org/home>), species information and guidelines.

Buehler, D. A. 2000. Bald Eagle (*Haliaeetus leucocephalus*). In The Birds of North America, No. 564 (A. Poole and F. Gill, eds.). The Birds of North America Online, Ithaca, New York.

<https://birdsna.org/Species-Account/bna/species/baleag/introduction>

USFWS. May 2007. National Bald Eagle Management Guidelines
<https://ecos.fws.gov/ServCat/DownloadFile/36458?Reference=36436>
- 2) Field studies shall include a 1000-foot buffer around the Project Footprint, determining suitability for Bald Eagle nesting, roosting and/or foraging habitat, each addressed separately. Field studies of buffered area can include using binoculars or a spotting scope from a high point, driving adjacent roads, etc. Make sure that any nests within 2000 feet are reported.
- 3) Overview photo(s) of the buffer and Project Footprint from highest points.
- 4) Provide shapefiles of 660-foot buffer of the Project Footprint

- 5) GIS boundary of treed areas with suitable nesting habitat within the Project Footprint and within 660-feet. Provide shapefiles of that habitat, *as well as* a 660-foot buffer of that habitat. So NOT a 660-ft buffer of the Project Footprint, but a 660-ft buffer around suitable nesting habitat identified above.
- 6) Provide landscape level reference points (roads usually) as well as the STA #s in the Assessment that correspond with the 660-ft buffer of potential nesting habitat. This can include STA #s from ROW Plans and any other project specific plans, BUT NOT STATION #s FROM LAND SURVEYORS REPORT since they are not the same as ROW or Construction plans Stationing.
- 7) Provide approximate location point of any suspected Bald Eagle nest within the Project Footprint or provide general location point within 2000-feet of the Project Footprint. DO NOT APPROACH NEST WITHIN 660' SO NO DISTURBANCE TO BALD EAGLES WILL OCCUR. Include the GPS point in shapefiles and label as potential nest, but do not provide the location on a map for security reasons.
- 8) The assessment cannot be left blank

Migratory Bird Assessment:

- 1) Bridge/Culvert/Structure Survey of any species using the features to nest.
 - a) Field assessment of ALL the existing roadway structures within the Project Footprint for use by swallows and other migratory birds greater than 2-ft including metal culverts, and record on the Swallow Assessment table, using NBI# if bridge, or ROW/construction plan STA. # for culverts (or NAD83 extent if no plans available), so this information can be used to help advise any work on these structures.
 - b) **Identify each structure by type (span bridge, RCB bridge, RCB, RCP, CGMP), roadway, over what named water feature or road, NBI, and Station # if culvert (lat/long if no plans).**
 - c) GPS all structures surveyed and clearly identify which structures exhibit current or past nests, and which ones do not (this is also a required map figure). Provide shapefiles identifying all positive and negative structures.
- 2) Birds of Conservation Concern Assessment (BCC)
 - a) Review all BCC listed in IPAC and if habitat is present in the Project Footprint with a focus on breeding/nesting habitat and tree and/or ground nesting species, as well as what construction activities will impact that nesting habitat. Review nesting habitat at <https://www.allaboutbirds.org/news/> and eBird for occurrences at <https://ebird.org/home>. In addition, guidance is provided in the IPaC list.
 - b) **Bald Eagles are not a BCC** (see info. provided when they are included in the BCC simply for information purposes). DO NOT include Bald Eagles here.
- 3) Interior Least Tern
 - a) Document if within or adjacent to an occupied waterbody, results from NHI occurrences, and analysis of any direct impacts to nesting habitat.

Potential Jurisdictional Waters and Wetlands Evaluation will include:

- 1) There are numerous places to find the following information. You can find the National Wetlands Inventory (NWI) maps at <https://fwsprimary.wim.usgs.gov/wetlands/apps/wetlands-mapper/> and USGS 7.5 minute topographic quadrangle maps for the Project Footprint at <https://topobuilder.nationalmap.gov/>; <https://ngmdb.usgs.gov/topoview/viewer/#4/39.98/-100.06>
- 2) Review of the Natural Resources Conservation Service (NRCS) soil survey maps for the county in which the proposed project will occur at <http://websoilsurvey.nrcs.usda.gov/app/>
- 3) Review of hydric soils lists published by the NRCS for the county in which the proposed project will occur.
- 4) Field studies of the Project Footprint for identification and delineation of all aquatic resources (e.g. wetlands and other water bodies).
- 5) Characterization of onsite streams, drainage features, wetlands and open water features.

- 6) Delineation of onsite wetlands according to the 1987 U.S. Army Corps of Engineers (USACE) Wetlands Delineation Manual and the applicable Regional Supplement, and associated policy documents.
- 7) Delineate the ordinary high water mark (OHWM) on both sides of every stream, drainage features and the boundary of every wetland and open water features with GPS. The area (in acres) within the OHWM of all aquatic resources (streams, drainage features, wetlands and open waters) based on GPS field data.
- 8) See Waters and Wetlands Report template for more detailed instructions on completing the Waters and Wetlands Report. Follow all of the naming conventions and guidance in that report template.
- 9) Reason for proposing whether a feature is likely or unlikely to be a jurisdictional waterbody by USACE, based on the current guidance, such as under Rapanos or under the most current Waters rule.

Biological Studies Submittal Process and Procedures:

The Consultant Project Manager and/or the Biological Consultant shall contact the ODOT Biological Consultant Manager, Kait Taylor, for **current report formats**, prior to beginning studies (contact information below) to establish connection to a shared folder with the reports that can be bookmarked and easily accessed at any time to get the most recent report formats.

Prepare two separate reports: one for the species' assessments and one for the potential jurisdictional waters and wetlands evaluation. Templates for these reports are attached.

The ODOT Natural Resources Program will serve as a liaison between ODOT and all Federal Agencies, including the USFWS for any required Endangered Species Act Section 7 consultation and Migratory Bird Treaty Act coordination. The consultant shall be responsible for all documentation requirements of Section 7 of the Endangered Species Act, the Migratory Bird Treaty Act, and Section 404 of the Clean Water Act under the oversight of the ODOT Biological Resources Program Manager.

UPDATED INFORMATION: Once 30% or other plans are available, the Consultant Project Manager will review the plans to determine if there is any change of scope from the original submitted studies and any change in footprint that exceeds the previous study footprint. The plans, with any changes highlighted on the plans, and a description of work in these areas and any additional changes or clarification in project activities, along with a map and shp file of the original study area and the new study area (which will show the change in footprint), will be submitted to the Biological Consultant Manager, Kait Taylor. The Biological Consultant Manager will review the updated information provided and consult directly with USFWS or advise the Consultant if an Amended Biological Assessment will be needed (this report can be requested at any time and will be provided by the Consultant Manager if the update involves a change in scope or impacts to newly listed species that has not been assessed by the previous studies.

File Naming Procedures and Submission Process:

- 1) The Consultant Project Manager shall provide the ODOT Biological Consultant Manager with the following documents. **All files MUST start with the COUNTY NAME and JP NUMBER followed by the document type below** (e.g. Tulsa County JP 12345(06) Biological Assessment Report):
 - a) Request to Review (**as a PDF**)
 - b) Project Scope/Initiation Report
 - c) Bridge Data Sheets for any bridges impacted
 - d) Any available plans or footprints
 - e) KMZ polygon of the Project Footprint
 - f) Biological Assessment Report (in Word format)
 - g) Biological Assessment Figures (as a PDF – no logos) must be optimized and kept under 5MB (if possible). The figures document will include:

- i) Maps relevant to your project outlined in the Biological Assessment Guidance
- ii) Photos – ideally 6 to a page to minimize document size
- iii) USFWS Bridge/Culvert/Structure Assessment Sheets – label top of this document same as the associated tables in the report
 - (1) The USFWS documents must first be “flattened” individually before merging and placing into figures so that form entries do not overwrite each other (which happens if you just merge all the forms together while the forms are still interactive/writable)
- iv) IPAC official species list
 - (1) This **MUST be updated and current to within 1 month of your submittal** for review, since you are responsible for submitting a CURRENT report and analysis
- h) Waters and Wetlands Report (in Word format)
- i) Waters and Wetlands Figures (as a PDF – no logos) must be optimized and kept under 5MB (if possible).
 - i) Maps relevant to your project outlined in the Waters and Wetlands Report
 - ii) Photos – ideally 6 to a page to minimize document size and of the streams and wetlands as well as overview of the project
 - iii) Wetland Delineation Forms - these must first be “flattened” before merging and placing into figures so that form entries do not overwrite each other (which happens if you just merge all the forms together while the forms are still interactive/writable)
- j) GIS Files (of all data created for Biological Studies, in single zipped folder)
 - i) EACH SHP ALSO MUST HAVE COUNTY JP, not just the shapefile name
 - ii) Including, but not limited to Study Area, Action Area, species habitat maps, bridge and culvert locations identifying positive and negative migratory bird nesting and those with evidence of roosting bats, photo location sites, suitable eagle nesting habitat with 660-ft buffer around suitable eagle nesting habitat, delineated wetlands with classification, delineated streams with mapped classification, and hydrological sampling locations.
 - iii) all shapefiles should be together in a single GIS folder with NO SUBFOLDERS.

All the above files should be zipped into a single file and emailed to the Natural Resources Program. **Send all documents, or provide access to the ftp or shared drives, to all of the following people:**

Kait Taylor

Consultant Manager
 ODOT Natural Resources
 Program at OU
 Norman, OK
 405-227-5915
ktaylor@odot.org

Elizabeth Nichols

Assistant Manager
 ODOT Natural Resources
 Program at OU
 Norman, OK
 405-325-6802
 405-850-0084 (cell)
enichols@odot.org

Amber McIntyre

Program Manager
 ODOT Natural Resources
 Program at OU
 Norman, OK
 405-210-3671
amcintyre@odot.org

- 2) The Consultant Manager will verify receipt of all documents with a confirmation email response.
- 3) Once reports and all accompanying information above has been provided, the Biological Consultant Manager will correspond directly with the Consultant Biological Specialist as needed to finalize the report documents. The Consultant Project Managers shall be copied on any correspondence with the Consultant Biological Specialist to keep them aware of any issues. **Review will begin only after a complete and accurate submission is received.**

- 4) **All Coordination with Federal Agencies will be done by the ODOT Natural Resources Program. The Consultant shall not contact Federal Agencies on any ODOT projects without a written approval from the ODOT Environmental Program Division.**