

Biological Assessment/Evaluation Development Guidelines

To facilitate consultation under Section 7(a)(2) of the Endangered Species Act (ESA), a biological assessment or evaluation (BA/BE) should be completed. The U.S. Fish and Wildlife Service (Service) recommends the following information be considered and included in your BA/BE. This information will enable the Service to efficiently and thoroughly analyze your proposed action so completeness and accuracy are insured regarding potential effects to Federally-listed and proposed species, and designated and proposed critical habitat. Consultation request submitted to the Service that lack sufficient information may be returned and/or require additional review time by the Service.

For further details regarding the consultation process, please visit "Consultations with Federal Agencies" http://www.fws.gov/endangered/consultations/sec7_faq.html

1) What is a BA and a BE and what is the difference between them?

The general purpose of both a BA and a BE is to evaluate potential effects of an action on protected natural resources. BAs specifically refer to "major construction activities" considered to be Federal actions significantly affecting the quality of the human environment as referred to in the National Environmental Policy Act of 1969 (NEPA) (42 U.S.C. 4321 *et seq.*). BEs are more general and refer to non-major construction or non-construction activities, and Federally-protected species and/or habitats.

A BA/BE should not be confused with an Environmental Assessment (EA) or Environmental Impact Statement (EIS) which may be required for NEPA projects. EISs and EAs are designed to provide an analysis of multiple possible alternative actions on a variety of environmental resources, and often use different definitions or standards. However, a BA/BE can be consolidated with an EA or EIS, or other interagency cooperation procedures required by other statutes.

a) Biological Assessment

A BA is required under section 7(c) of the ESA, to fulfill consultation requirements set forth in section 7(a)(2) of the ESA, if Federally-listed species or designated critical habitats *may* be present in the area affected by any "major construction activity". "Major construction activities" are considered to be Federal actions significantly affecting the quality of the human environment as referred to in the National Environmental Policy Act of 1969 (NEPA) (42 U.S.C. 4321 *et seq.*) and defined in 50 CFR 404.02. A BA also may be recommended for other activities to ensure the Federal action agency's early involvement and increase the chances for resolution during informal consultation.

If both Federally-listed and proposed species and/or designated and proposed critical habitat are present, then the BA should include both proposed and listed/designated. Preparation of a BA is optional *if only* proposed species or proposed critical habitat are involved with a "major construction activity" (50 CFR 402.12). A BA should address *all* Federally-listed

and proposed species, and designated and proposed critical habitat that are *found* in the action area, *not just* those that are *likely* to be affected.

If a Federal agency is likely to affect a Federally-listed species or critical habitat, by an action other than a “major construction activity”, an account of their evaluation of likely effects from the action must still be provided to the Service.

b) Biological Evaluation

Biological Evaluations are not legally defined or mandated documents under the ESA or its implementing regulations. Rather, BE refers to a generic term used to describe other (non-BA) documents aimed at analyzing impacts to biological and/or environmental resources, including those resources that are protected and not protected.

Actions outside “major construction activities” could still potentially impact Federally-listed and proposed species, and designated and proposed critical habitat. Consequently, consultation with the Service [50 CFR 402.14(c)] is still required. The Service will still need the necessary information to completely and accurately evaluate effects of the proposed action on Federally-listed and proposed species, and designated and proposed critical habitat. So, in order to complete consultation, other documentation, such as a BE, describing the evaluation of the likely effects must be provided to the Service for review. The content of a BE can vary depending on the parties involved, the action, and the resources potentially impacted. However, the Service recommends providing a BE that is similar in format and content to a BA. A BE will significantly facilitate the consultation process with the Service.

2) Additional Considerations

Keep in mind that the biologist reviewing a submitted BA/BE may not be familiar with the action area or the type of action. Avoid or define technical jargon that is not readily understandable to people outside your agency or area of expertise. Your BA/BE should present a clear line of reasoning that explains the proposed project and how you determined the effects or lack of effects of the project on each listed species and designated critical habitat in the project area. A BA/BE should be a stand alone document, meaning no further explanation of the project and its potential impacts is needed.

The Federal action agency may designate an applicant or a non-Federal representative to prepare a BA or BE, although the Federal action agency takes the responsibility for the content of the BA or the BE and for the findings of effect.

3) What do you need to consider and include in a BA/BE?

a) What are you proposing to do?

A complete description of the proposed project should be included in your BA/BE. A project description can be very short or very long. For example, describing the placement

and construction of a new microwave tower would probably be short, but describing an alternative for improving range management may be long. Include any information that will help others understand your proposed action and its relationship with the species and their habitats.

Describe primary and associated activities. For example: a new well site also may require the construction of an access road, and a flowline; a new highway may include right-of-way clearing, staging areas, and bridges; a surface coal mine may include haul roads, overburden piles, and staging areas; etc. Be sure to describe how you (or the project proponent) plan on implementing and constructing the project and what will this involve? What equipment or methods may be used? How will the site be accessed? What time of year will the project be conducted? What is the construction timeline? How many acres will be disturbed (both temporarily and permanently)? And include any other project specific information.

b) What and where is the proposed project area?

Provide the county(s) of project location, a legal description (*e.g.*, sec 10, T. 4 N. R. 3 .E, Indian Meridian), coordinates (latitude and longitude) formatted in decimal degree units with the datum or projection used to collect the coordinates [*i.e.* North American Datum 1927 (NAD27), North American Datum 1983 (NAD83), World Geodetic System 1984 (WGS84), etc.]. The Service prefers that data be provided in NAD 83.

A photocopy of a U.S. Geological Survey quadrangle map, with quadrangle name and a legend should be provided. Clearly mark the project location including all appurtenant features, such as pipeline routes, staging areas, access roads, etc. Clearly distinguish between existing and proposed construction areas and actions. The Service recommends providing two maps depicting the action area: one at a large scale indicating where in the state or county the project is and another at a smaller scale to display project details (such as project boundaries, roads, etc.). Zooming in on a mile section of a map and placing a reference point does not provide the reviewer with any means to determine where in the state or county this project actually occurs.

Describe what the project area looks like now, prior to implementation of your project. What is the topography; vegetative community(s) (*e.g.*, 70% is oak/hickory forest and 30% is tallgrass prairie) or dominant vegetative species; habitat condition including successional phase, presence of native versus non-native species, and vegetation density (open woodland, dense forest, thick brush, etc.); soil type (according to the County Soil Survey); development status (previous and current landuse, description of surrounding area (*i.e.* developed, cropland, etc.), and any other pertinent information,. List the presence and type of wetlands and streams within or near the action area. Provide photographs of the project area (including aerials, if available).

How will your project change the area? Describe how the land and vegetation will be affected by your project. Is your project temporary or permanent? How many acres will be disturbed? What restoration measures will be implemented, if applicable?

Supporting documents are very helpful. If you have a mining plan, research proposal, NEPA or other planning document or similar documents regarding the project, reference them in your analysis and attach them to the BA/BE.

c) What Federally-listed threatened and/or endangered species and/or designated critical habitat may occur in the project area?

The only time you need to contact the Service for a species list is when your project qualifies as a “major construction action” as defined by NEPA. For all other projects a species list need not come from the Service, it can be generated by you. However, the Service recommends, for both major and non-major construction activities, using the species and critical habitat list provided on our website at

<<http://www.fws.gov/southwest/es/oklahoma/>>. Our website provides county species occurrences and life history information for each species, as well as designated and proposed critical habitat areas. This office currently only provides general, county wide species lists. Other up to date, reputable sources, and published and peer reviewed references can be used. All sources of species and habitat information must be referenced in your BA/BE.

Additional information regarding the physical or biological features of designated critical habitat essential to the conservation of the species are available in Federal Register documents and a recovery plan (if completed). All Federal Register documents and most recovery plans are available on the internet. Federal Register documents are provided at <http://www.gpoaccess.gov/fr/>. The Service’s national website provides completed recovery plans and some Federal Register documents: <http://www.fws.gov/endangered/>.

All species and critical habitat that may occur in your project area should be included in your BA/BE even if during your effects analysis you determine actual effects will not occur. Sometimes a species may occur in the larger regional area around your project site but the habitat necessary to support the species is not present in your project area nor is this habitat close enough to your project to result in indirect impacts. In Oklahoma for example, the endangered interior least tern only inhabits sandy beaches and islands along major waterways. Your project area may not contain this habitat type, or tributaries draining to this habitat type, or be in close proximity to this habitat type. So, even though the species may be listed as occurring in the regional area of your project, impacts from your project are unlikely due to the lack of suitable habitat in, downstream, or close to your project area. Consequently, further evaluation of impacts to these species is not likely necessary. Documentation of your reasoning for exclusion must be provided in your BA/BE.

d) Have you surveyed for species that are known to occur or have potential habitat in the proposed project area?

The "Not Known To Occur Here" or “No Suitable Habitat Known To Be Present” approaches are common flaws in many BA/BEs. The operative word here is "known." Blanket statements like this do not provide any substantive information about a species or species habitat. Unless adequate species surveys or habitat assessments have been conducted, or acceptable reference sources have been cited, this statement is difficult to

interpret. It begs the questions "Have you looked?" and "How have you looked?". Always reference your information sources.

Provide a clear description of your survey and/or habitat assessment methods so that the reader can have confidence in your results. Answer questions such as: How intensive was the survey? Were surveys for presence or absence of the species, or were surveys conducted to determine number of individuals? Did you look for suitable habitat or did you look for individuals? Did the survey cover the entire project area or only part of it? Who did the surveys and when? Was the survey conducted during the time of year/day when the plant is growing or when the animal can be found (its active period)? Did the surveyor(s) have appropriate permits? Did the survey follow accepted protocols?

Be sure to provide maps of areas surveyed and include field data or reports regarding the surveys with your BA/BE.

If you are not sure how to conduct a valid survey for the species, consider contacting species experts or review the scientific literature. If you talk with someone about special survey techniques or if you read about them, cite your reference in the BA/BE.

e) Will your proposed action affect Federally-listed species or designated critical habitat that occur in the project area? What type of effects will occur?

The ESA requires you to consider all effects, both beneficial and adverse, when determining if an action funded, permitted, or carried out by a Federal action agency may affect Federally-listed species or critical habitat. Effects you must consider include direct, indirect, and cumulative effects. Direct effects are those caused by the action, and occur at the same time and place as the action. Indirect effects include those caused by interrelated and interdependent actions. Indirect effects are caused by the action, but occur later in time and are reasonably certain to occur. Interrelated actions are those that are part of a larger action and depend on the larger action for their justification. Interdependent actions are those that have no significant independent utility apart from the action under consideration. Cumulative effects are those effects of future State or private activities, not involving Federal activities that are reasonably certain to occur within the action area of the Federal action subject to consultation.

Each component of your proposed project should be evaluated for potential and likely affects to Federally-listed species, and critical habitat. Include all potential and likely impacts to a species and to critical habitat in your BA/BE and your reasoning for discounting or confirming those effects. An explanation and justification must be provided in your BA/BE if you believe the project will not affect a species or modify critical habitat.

Be sure to consider the following in your BA/BA. Will impacts to a species occur during a sensitive timeframe? What will cause the effects (i.e. noise, tree removal, clearing)? What could impacts potentially result in (i.e. killing a species; deterring reproduction; displacing a species temporarily or permanently; loss of habitat for the species)? Why and how will these impacts occur (i.e. a ground dwelling animal will be adversely affected by dozing

operations because soil will be displaced)? What part of the species population will be affected by this project (i.e. all individuals in the project area, all inhabited acres in the project area)? What will the duration of impacts be (i.e. short-term, long-term, and/or permanent)? What will the frequency of the disturbance be? What is the distribution of effects (one large area or several small areas)? Potential effects could include but are not limited to: impediment of normal behavior, loss or degradation of food, water, air, light, cover or shelter; loss or diminishment of breeding, reproduction, rearing of young, germination, or seed dispersal.

f) What actions can you implement to avoid or minimize impacts to Federally-listed species and their habitats; or critical habitat?

Describe measures that can be implemented to avoid, reduce, or eliminate adverse effects or enhance beneficial effects to the species and critical habitat. Examples are: reducing the size of your project, relocating project, altering construction date, modifying construction methods, etc. Refer to conversations with species experts and credible literature references to achieve these results. Also, consult with your engineers, construction managers, etc. to determine available alterations or modifications.

The Service also recommends (but does not require) consideration of recovery potential for those species in the project area, or for species once in the project area and now are extirpated.

g) What is your decision? The Federal action agency or their officially designated non-Federal representative must make a determination of effect.

Frequently, effect determinations are either not provided or unsupported in the BA/BE. Often, determinations that are made provide little or no connection or rationale to lead the reader from the project description to the effect determination. The BA/BE should lead the reviewer through a discussion of effects to a logical, well-supported conclusion.

Do not assume that the reader is familiar with the project or its location, or that there is no need to fully explain the impacts the project may have on Federally-listed species or designated critical habitat. We cannot assume conditions that are not presented in the BA/BE. Making these assumptions and the Service accepting these assumptions would leave both the project proponent and the Service at risk of challenge by third parties.

A determination needs to be made for each Federally-listed species. You have three choices, as listed and defined below.

"**No effect**" means there are absolutely no effects, positive or negative, to species or habitat from your proposed action. "No effect" does not mean a *small* effect or an effect that is *unlikely* to occur. If effects are insignificant (small in size) or discountable (extremely unlikely), a "may affect, but not likely to adversely affect" determination is appropriate. A "no effect" determination does not require section 7 consultation with the

Service. However, your administrative record should document how and why you made this determination because you still need to comply with section 9 of the ESA, which prohibits the “take” of any Federally-listed species. Take is generally defined as harm, harass, or kill. The Service recommends that the supporting documentation for this determination also be provided to the Federal action agency for their records and evaluation.

"May affect - is not likely to adversely affect" means that all effects are beneficial, insignificant, or discountable. Beneficial effects have contemporaneous positive effects without any adverse effects to the species or habitat. Insignificant effects relate to the size of the impact and should never reach the scale where take occurs. Discountable effects are those extremely unlikely to occur. Based on the best scientific and commercial information available, a person would not be able to meaningfully measure, detect, or evaluate insignificant effects; *or* expect discountable effects to occur. If any ‘take’ is likely to occur this determination is inappropriate. This determination requires written concurrence from the Service.

"May affect - is likely to adversely affect" means that there is at least one adverse effect. This determination means that effects to species and habitat: 1) are not insignificant in size and avoidance of ‘take’ cannot be guaranteed; and 2) discountable effects are not extremely unlikely to occur. Adverse effects do not meet the definition of insignificant (small in size) because they are less than major. Adverse effects do not qualify as discountable simply because we are not certain they will occur. The probability of occurrence must be extremely small to achieve discountability (extremely unlikely to occur). A combination of beneficial and adverse effects is still "likely to adversely affect," even if the net effect is neutral or positive. This determination requires formal consultation with the Service.

A determination needs to be made for all proposed species and proposed critical habitat. A determination of likely or not likely to jeopardize proposed species or destroy/adversely modify proposed critical habitat must be made.

“Likely to jeopardize proposed species or destroy/adversely modify proposed critical habitat” is the appropriate conclusion when the Federal action agency or the Service identify situations where the proposed action is likely to jeopardize the proposed species or destroy/adversely modify the proposed critical habitat. If this conclusion is reached then conference between the Service and Federal action agency is required.

If critical habitat is involved, then another determination needs to be made. This finding requires a determination of whether the Federal agency's action will likely or not likely result in the destruction or adverse modification of designated critical habitat as described in the statutory provisions of the ESA.

"May affect - is likely to adversely modify" means a direct or indirect alteration that appreciably diminishes the value of critical habitat for both the survival and recovery of a listed species. Such alterations include, but are not limited to, alterations adversely modifying any of those physical or biological features that were the basis for determining the habitat to be critical. Appreciably diminish the value means to considerably reduce the capability of designated or proposed critical habitat to satisfy requirements essential to both survival and recovery of a listed species.

4) Do you have any other relevant reports?

Attach any survey results, research proposals, or other planning documents.

List the species experts you contacted when preparing the BA/BE but avoid statements that place the responsibility for the decision of "may affect" or "no effect" on the shoulders of the species experts. For example, avoid the following kind of statement: "I contacted Janice Smith, a biologist, who said the project would have no affect on this endangered species." Remember, this decision is made by the Federal action agency or their officially designated non-Federal representative, which is accountable for its actions.

5) What happens after you submit your BA/BE to the Service?

The Service will review your BA/BE for completeness. If we determine it is not complete we will notify you of the deficiency via letter, email, or telephone. Consultation can not begin until we receive a complete BA/BE. If we determine it is complete then we will determine the accuracy of the document and notify you of our concurrence or non-concurrence with your determination. If we concur with your decision and the reasoning for your decision, we will provide you with the appropriate notification. If we do not concur with your determination we will likely recommend further consultation.

Please allow at least 30 days for the processing of your complete request, starting with the day it is received in this office.