BIOLOGICAL ASSESSMENT / BIOLOGICAL EVALUATION CONTENTS
(Information to Include in a Complete Initiation Package)

When you prepare a biological assessment or biological evaluation to request Service concurrence with a "may affect, not likely to adversely affect" determination or initiate formal consultation, keep in mind that the people who read or review your document may not be familiar with the proposed action or the project area. Your document should present a clear line of reasoning that explains the proposed action and how you determined the effects of the proposed action on each of the threatened and endangered species and critical habitats that may be affected. Try to avoid technical jargon that is not readily understandable to people outside your agency or area of expertise. Following is a discussion of some of the things to consider and include, as appropriate, in a biological assessment or biological evaluation.

A. COVER LETTER

Describe the type of Federal action involved (e.g., federal permit, federal funding, federal action, etc.) and letter of designation if you are the federal agency's non-federal representative. Include the proposed action (project) title and purpose. Make a determination for each listed species and designated critical habitat. There are three options: (1) "no effect" determination; (2) request Service concurrence with a "may affect, not likely to adversely affect" determination; or, (3) request formal consultation with the Service for a "may affect, likely to adversely affect" determination. For a proposed species or critical habitat, determine whether the proposed action "is likely to jeopardize the continued existence of" proposed species or "adversely modify" proposed critical habitat.

B. PROJECT DESCRIPTION

Describe what you are proposing to do. Provide the location of the proposed action including state, county, and township in which the proposed action occurs. Describe the action area, which includes all areas to be affected directly or indirectly and not merely the footprint of the proposed action. Consider the perspective of listed species when delineating the action area. The Service may assist you in defining the action area.

Provide a location map showing proposed action location and major roads and drainages. Provide a vicinity map showing the area of the proposed action. Provide a site map showing all of the project activities including the project site, staging areas, access routes, restoration sites, and compensation areas. Scales should be adequate to orient someone unfamiliar with the project and project area. Provide an aerial map and USGS topographic map showing the project boundaries and an area surrounding the project (vicinity map). Photographs may be helpful.

Provide a detailed description of the proposed action, including secondary project features such as staging areas, access roads, power lines, drainage ponds, etc.

Describe construction and operation activities and maintenance activities and the expected timing of these activities. Describe types of equipment that will be used, when it will be used (time of day, week, year), and duration of use (number of years). Discuss equipment features that minimize impacts, such as rubber tires, mufflers, or tailgate bumpers.

C. SPECIES, SUITABLE HABITAT, AND CRITICAL HABITAT DESCRIPTION(S)

Provide a list of threatened, endangered, and proposed species observed or expected to be present on-site or in the project area, including either seasonal or temporary use. Generally, it is prudent to err on the side of the species and be as inclusive as possible to ensure that all species potentially affected by the proposed action are included in the analysis.

Provide a description of the habitat and/or plant communities on-site and within the project vicinity. Provide a description of methods used to classify and identify the habitats and species occurrences. Provide a description of the typical habitat requirements for listed species. Descriptions of life histories of species are not necessary for the assessment.

Discuss surveys for species that are known to occur or thought to occur or for which species' habitat is present in the project area. Provide a description of survey methods, intensity, timing, and survey results for listed, proposed, or candidate species or their habitat that were conducted for the proposed action. This discussion should follow accepted formats for published literature. You may consider consulting a species researcher or use survey methods described in published literature to design surveys. Discuss limitations and how surveys or assumptions were adjusted to account for such limitations. Survey methods must be site-specific and species-specific and in sufficient detail to determine absence of the species or the species is assumed to be present on the site. Describe the background, training, and experience level of those conducting the surveys. Listed species may use habitat within the project area even if they are not detected during surveys; therefore, surveys must be carefully designed and carried out. You may need a permit to survey for some species.

Provide background information on the threatened and endangered species or designated critical habitat in the project area. Provide a description of the overall range and population status of the listed species. Describe population size and status and what part and size of the range/population that will be affected by the proposed action.

Discuss the habitat and/or plant communities associated with the listed species found on-site and within the project vicinity that would potentially be affected by the action. Discuss natural disturbances, such as the types and frequencies of natural fires, floods, or erosion events. Describe any current management actions that affect the proposed action site and vicinity.

Describe the critical habitat present and the constituent elements, or physical or

biological features essential to the conservation of the species, of the critical habitat.

Describe current baseline conditions which include past and present impacts of all federal, State, or private actions and other human activities in the action area. Describe actions that have already occurred that are affecting the project area, the anticipated effects of all federal actions that have already been consulted on in the action area, and the effects of all State and/or private actions which are contemporaneous with the consultation in process.

Provide information obtained from biologists and other local sources (county, state, and federal agencies, local researchers, etc.) that are familiar with the areas/species being assessed.

D. EFFECTS OF THE PROPOSED ACTION

Logically describe the biological rationale to support a conclusion that the proposed action will have no effect on listed species or designated critical habitat (i.e., no direct or indirect, beneficial or adverse effect) for the administrative record. For example, an effects analysis for a proposed action in which the action area is not within the range and does not effect the range of any listed species or designated critical habitat may support a “no effect” determination.

Describe how the proposed action will affect each threatened and endangered species and their associated habitat and designated critical habitat. Effects can be positive or negative and may include habitat modification (e.g., change in plant communities, change in edge and fragmentation, hydrological changes), disturbance (e.g., visual, auditory, etc.), and physical changes (e.g., water or soil chemistry, air quality, etc.). Describe measures taken to avoid or reduce adverse effects to each species. Discuss how each species will likely respond to changes to habitat suitable for that species. Quantify the amount and distribution of effects (e.g., acres of habitat affected by basin or watershed, location and number of individuals or percent of population affected). Describe and quantify the effects to designated critical habitat.

Direct and Indirect Effects:

Describe effects of actions that are already affecting the primary action area. The cumulative effects of past actions are part of the baseline conditions from which this proposed action is assessed.

Describe and analyze the effects of the action that would have a direct effect on the species (e.g., actions that would immediately remove or convert habitat or displace animals or plants, or that would affect individuals such as noise disturbance or chemical applications, or that would alter hydrology).

Describe and analyze the effects of the action that would indirectly affect the species (e.g., effects to individuals or habitat that would occur later in time).

Interdependent and Interrelated Actions:

Describe and analyze the effects of interdependent actions. These are actions that have no independent utility apart from the primary action. An example of an interdependent action for a residential development may include the construction, maintenance, and use of a road required to access the development.

Describe and analyze the effects of interrelated actions. These are actions that are part of the primary action and dependent upon that primary action for their justification. An example of an interrelated action for a residential development may include the power line.

Both the interdependent and interrelated activities are assessed by applying the "but for"' test, which asks if any action and its associated impacts would occur "but for the proposed action."

Cumulative Effects:

Describe and analyze the effects of actions that are cumulative to the primary action. Cumulative effects include the effects of unrelated future state and/or private activities, not involving federal activities, that are reasonably certain to occur within the action area. An example of an action that could be considered cumulative to the primary action would be a future housing development located adjacent to the federal activity of building a highway. A future activity is "reasonably certain to occur" if it is likely to occur considering economic, administrative, or legal considerations; implementation of the activity need not be guaranteed. An analysis of cumulative effects includes discussing assumptions, quantifying amount and location of effects, and discussing the likely response of listed species to these cumulative effects.

Any research findings that are used in the analysis of the effects of an action should be cited. This adds to the credibility of the analysis.

E. CONSERVATION MEASURES

Describe actions incorporated into the design of the proposed action to avoid or reduce adverse effects to and incidental take of listed species. Once you have completed an analysis of effects, additional actions may be identified to avoid or reduce adverse effects or incidental take. Conservation measures are actions that, when implemented by the federal agency or applicant, would reduce the adverse impacts of the proposed activity.

Conservation measures may be alterations in the proposed activity such as timing restrictions, access closures, or changes in project features or location. The measures should be as specific as possible. Conservation measures may be developed with the assistance of the Service with the objective of reducing significant project impacts. These conservation measures would assist in compliance under the Act through the informal section 7 process.

F. CONCLUSIONS

Document your decision. The finding or determination of effect is the conclusion of the assessment and indicates the overall effect of the proposed activity on listed species or critical habitat. This finding must be supported by the documentation presented in the biological analysis. The analysis presented should lead the reviewer through a logical, biological rationale of effects that leads to a well-supported conclusion. Do not assume that Service staff reviewing your document are familiar with your proposed action or action area. If there is little or no connection or rationale provided to lead the reviewer from the project description to the effect determination, the Service cannot assume conditions not presented in the analysis. If there is a difference of opinion, the Service must err on the side of the species.

The finding of effect is made by the federal action agency. A recommended finding may be presented to the federal action agency by the non-federal representative. The Service may ask the federal action agency to revisit its decision or provide more data if the conclusion is not adequately supported by the biological rationale.

The federal action agency may make only one of the following effect determinations for each listed species or designated critical habitat:

4. **No effect** – A “no effect” determination means that there are absolutely no effects from the proposed action, positive or negative, to listed species. A “no effect” determination does not include effects that are insignificant (small in size), discountable (extremely unlikely to occur), or beneficial. “No effect” determinations do not require written concurrence from the Service unless the National Environmental Policy Act analysis is an Environmental Impact Statement. However, the Service may request copies of no effect assessments for our files.

5. **May affect, not likely to adversely affect** – A “may affect, not likely to adversely affect” determination may be reached for a proposed action where all effects are beneficial, insignificant, or discountable. Beneficial effects have contemporaneous positive effects without any adverse effects to the species or habitat (i.e., there cannot be a “balancing,” where the benefits of the proposed action would be expected to outweigh the adverse effects - see below). Insignificant effects relate to the size of the effects and should not reach the scale where take occurs. Discountable effects are those that are extremely unlikely to occur. This conclusion is usually reached through the informal consultation process, and written concurrence from the Service exempts the proposed action from formal consultation. The federal action agency’s written request for Service concurrence should accompany the biological assessment/biological evaluation.

6. **May affect, likely to adversely affect** – A “may affect, likely to adversely affect” determination means that all adverse effects cannot be avoided. A combination of beneficial and adverse effects is still “likely to adversely affect” even if the net effect is neutral or positive. Section 7 of the Endangered Species Act requires that the federal action agency request initiation of formal consultation with the Service

when a “may affect, likely to adversely affect” determination is made. A written request for formal consultation should accompany the biological assessment/biological evaluation.

The determination for proposed species or proposed critical habitat may be:

“Likely to jeopardize proposed species/adversely modify proposed critical habitat” - This is the appropriate conclusion when the federal action agency or the Service identifies a situation where the proposed action is likely to jeopardize the proposed species or adversely modify the proposed critical habitat. If this conclusion is reached, a conference is required. A written request for a conference should accompany the biological assessment or biological evaluation. The Service is available to assist the federal action agency with their determination for proposed species or critical habitat.

To jeopardize is to engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both survival and recovery of a listed species in the wild by reducing the reproduction, numbers or distribution of that species.

The destruction or adverse modification of critical habitat is a direct or indirect alteration that appreciably diminishes the conservation value of critical habitat for 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.

G. LITERATURE CITED

Provide a list of supporting documentation that you used to reach your conclusion. Be sure to include any agency reports or data that may not be available to the Service.

H. LIST OF PREPARERS

List the preparers and the species experts you contacted when preparing the biological assessment/biological evaluation. Avoid making statements that place the responsibility of the decision or determination on the shoulders of species experts or any other contact. The decision is made by the federal action agency.