BIOLOGICAL ASSESSMENT GUIDEBOOK

National Park Service
U.S. Department of Interior

Intermountain Region

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Prepared by:

Mike Wrigley, Regional Wildlife Biologist – Endangered Species Coordinator
U.S. Department of Interior – National Park Service
Intermountain Regional Office
12795 West Alameda Parkway.
Lakewood, Colorado 80225-0287
Telephone: 303/969-2929
Email: mike_wrigley@nps.gov

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1.0 INTRODUCTION

This Biological Assessment Guidebook (Guidebook) is intended for National Park Service (NPS) biologists, consultants, and others implementing management actions, and assist them in compliance with the Endangered Species Act of 1973 (16 U.S.C. 153 *et seq*.), as amended (ESA or Act) and NPS Management Policy (NPS 2006). The information herein, provides individuals preparing biological assessments (BA), in accordance with the Act and section 7 consultation clarification, and guidance regarding its content. This Guidebook should be used by biologists and others writing BAs as a guide and template to document effect analysis for federally listed threatened and endangered (T&E) species and/or designated critical habitat in a BA. NPS Management Policy (2006) also requires the management of state and locally listed species (species of concern) should be similar to that of federally listed species (https://www.nps.gov/policy/MP2006.pdf). This Guidebook supplements the U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) Endangered Species Consultation Handbook (USFWS/NMFS 1998) (https://www.fws.gov/endangered/esa-library/pdf/esa_section7_handbook.pdf) and other ESA regulation and guidance, and does not supersede or replace them. Refer to these and other references as needed for additional information. Confer with your local USFWS/NMFS office for additional guidance and their preferences as to the content of your BA.

Below, we provide a brief overview of the Act and recommendations for individuals conducting biological analysis – documented in BAs for ESA and other compliance. It is however, not a National Environmental Policy Act of 1969 (NEPA) (42 U.S.C. 4321) guidance document. Also contact 1) park compliance staff; 2) regional environmental coordinator; or 3) Washington Office (WASO) – Environmental Quality Compliance Division. We provide two different BA formats and guidance for each section of your BA in the main body of this Guidebook and templates (in Appendix H). We use specific ESA terms shown in **bold, italicized, with quotation marks** because they are legally defined and must be used specifically in your documents as appropriate. A separate MSWord "screen-fillable" document of Appendix H is available upon request.

2.0 ESA OVERVIEW

The following section provides a brief overview of important components of federal responsibilities under the ESA. The Act requires lands under federal jurisdiction to conserve and recover listed species and use their authorities in the furtherance of the purposes of the Act by carrying out programs for the conservation of endangered and threatened species (50 CFR §402). See Appendix A for a complete list of ESA terms and definitions and Appendix B for the section 7 process in this Guidebook for additional information.

In short, the Act, in section 7(a)(1) mandates federal agencies to contribute towards the conservation (recovery) of federally listed species by utilizing their authorities to conserve (recover) federally listed species so that listing is no longer necessary. Section 7(a)(2) directs all federal agencies to consult (referred to as section 7 consultation) with USFWS/NMFS when their activities "***may affect***" a listed species or designated critical habitat. Other sections address the prohibition of take etc. In summary, the ESA mandates federal agencies to the following:

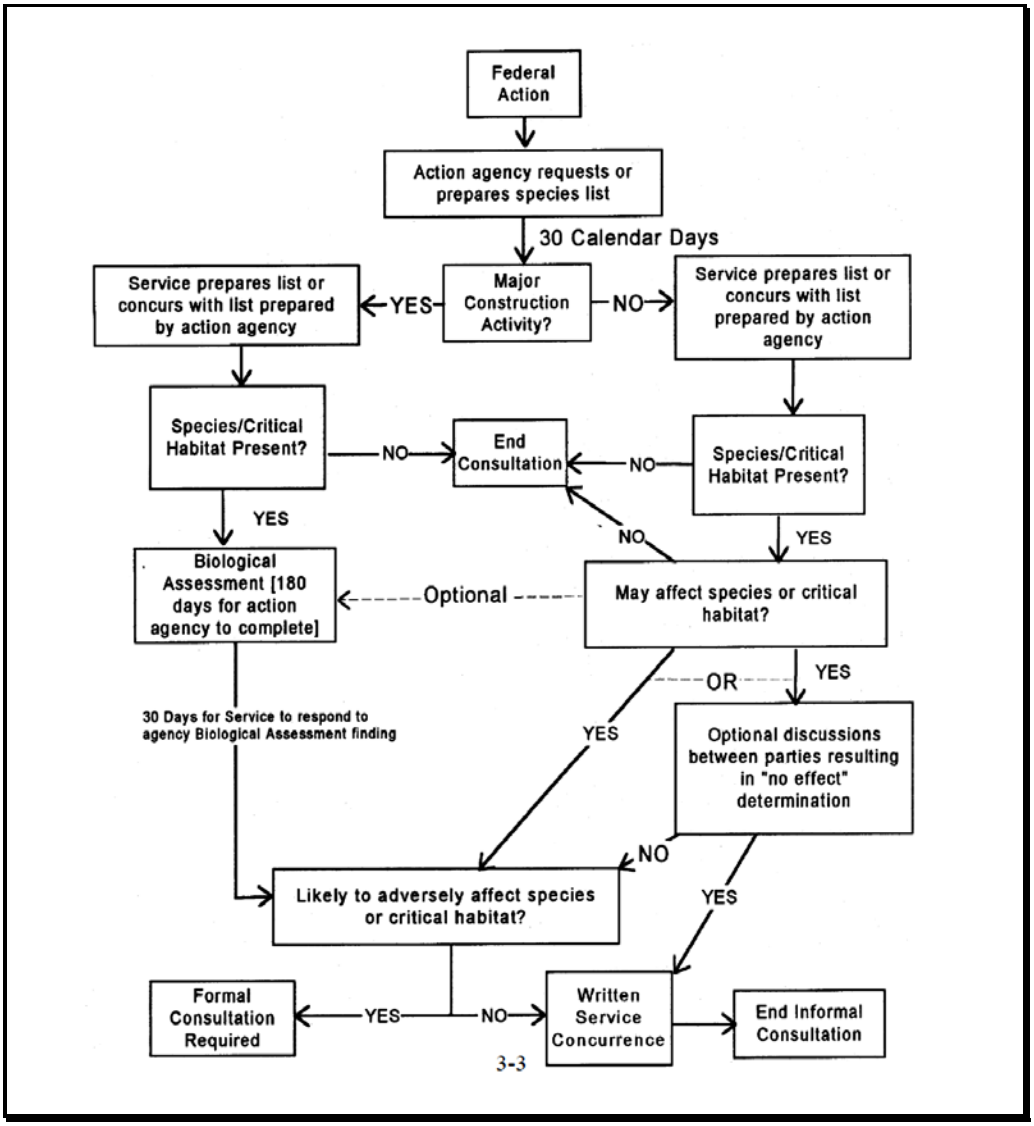
- Forbids the import, export, or interstate or foreign sale of endangered and threatened animals and plants without a special permit.
- "***Take***" is illegal - forbidding the killing, harming, harassing, pursuing, or removal of the species.
- Conducts their activities in such a way as to conserve (recover) listed species.
- Consults with USFWS/NMFS to conserve listed species on their lands and ensure that any activity they fund, authorize, or carry out will not "***jeopardize***" the survival of a threatened or endangered species. This is known as section 7 consultation.
- Conferences with USFWS/NMFS when a federal action is "***likely to jeopardize the continued existence***" of a proposed species or result in a "***destruction or adverse modification***" of proposed critical habitat.

The section 7 process is a continuum, encompassing informal and formal consultation processes with the USFWS/NMFS. Initially, actions undergo technical assistance and informal consultation. Depending on whether a listed species or critical habitat is present and the level of effect, formal consultation may be necessary. Below is a brief overview, then a step-by-step outline of the section 7 consultation process all federal agencies must follow to fulfill ESA mandates. See Appendices A, B, and F in this Guidebook and USFWS website https://www.fws.gov/endangered/laws-policies/esa.html for more information regarding this consultation process.

2.1 Informal Consultation

In its simplest form, **informal consultation**[1] is a process which assists federal agencies in determining if formal consultation is required. It also is the process through which federal agencies request concurrence with the agency's "***may affect, not likely to adversely affect***" or "***no effect***" determination. Informal consultation is an informal process that includes all contacts prior to formal consultation during project development or your analysis. There is no specified timeline for completion. See Appendices A, B, F, and G for more information. Figure 1 below shows a flowchart with steps in the informal consultation process.

Figure 1. Informal consultation process (Endangered Species Consultation Handbook [USFWS/NMFS 1998]).

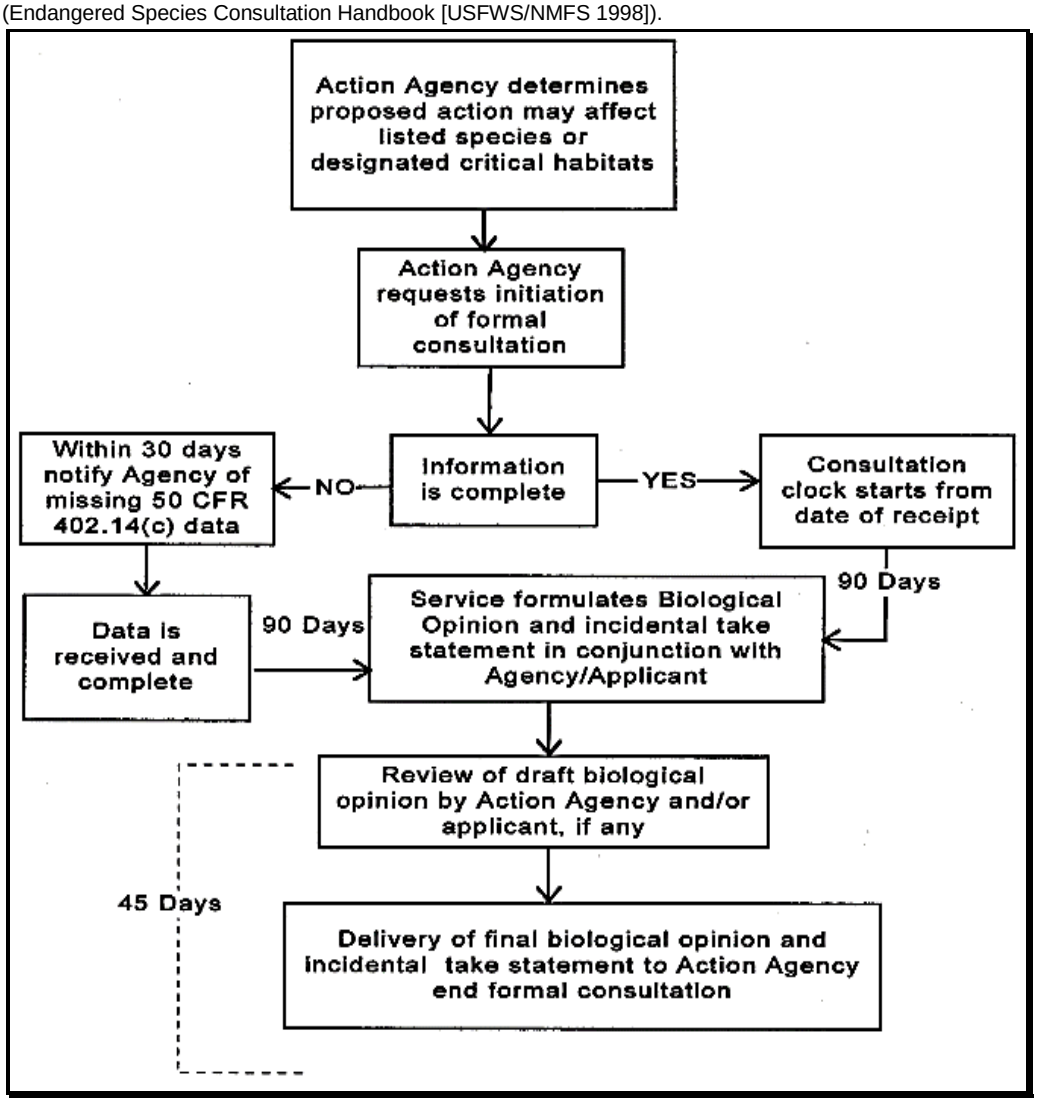


[1] **Informal Consultation** - Submission of a BA to USFWS/NMFS with a "***no effect***" determination is not required under the Act, but can be requested.

2.2 Formal Consultation

Formal consultation[2] is required when federal actions "***may affect, likely to adversely affect***" a listed species or critical habitat. It involves the submittal of a BA to USFWS/NMFS. Under formal consultation, USFWS/NMFS prepares a Biological Opinion (BO or BiOp) specifying what effects the proposed action will likely have upon any listed species or its critical habitat. The BO specifies one of three possible outcomes: "***no jeopardy***", "***jeopardy with alternatives***", or "***jeopardy without alternatives.***" It can also include an incidental take statement (ITS) if ***incidental take***[3] is anticipated. See Appendices A, B, F, and G for more information. Figure 2 below shows the formal consultation process.

Figure 2. Formal consultation process for actions that "***may affect, likely to adversely affect***" a listed species or designated critical habitat (Endangered Species Consultation Handbook [USFWS/NMFS 1998]).



[2] **Formal Consultation** is required if an action is likely to "***adversely affect***" a listed species and designated critical habitat. For proposed species, further consultation is required only if the action is likely to "***jeopardize the continued existence***" of the species or result in "***destruction or adverse modification***" of critical habitat. To appropriately apply these determinations, you need to fully understand the terms "***jeopardy***" and "***adverse modification***" and should have complete knowledge of the rangewide status of the species and condition of the habitat, respectively. For these reasons, agencies typically conclude "***may affect, likely to adversely affect***" and contact USFWS/NMFS for further guidance in making the jeopardy and adverse modification determinations for species/critical habitat.

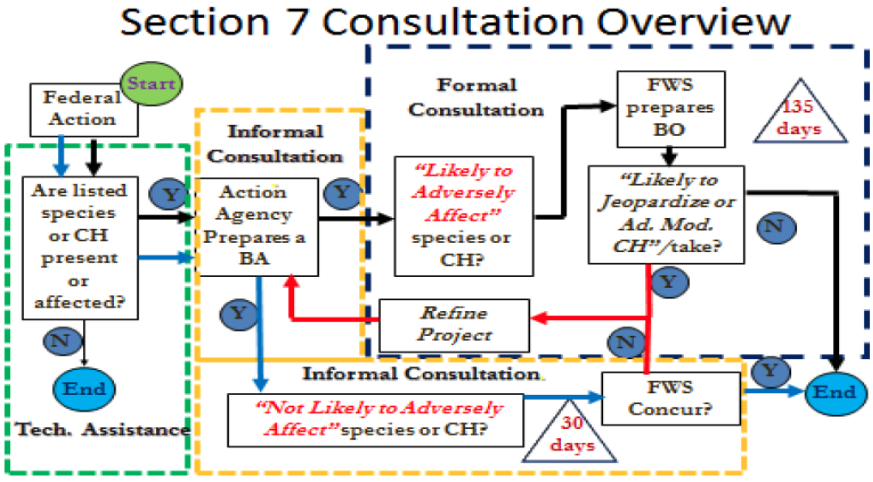
[3] **Incidental take** is defined as ***take*** of a listed fish or wildlife species that results from, but not purpose of, carrying out an otherwise lawful activity conducted by a federal agency or applicant (50 CFR §402.02). Section 3 of the ESA defines ***take*** as means to "*harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct*". There can be no ***incidental take*** for listed plant species.

A vast majority of section 7 consultations only go through the informal, not formal consultation process. Figure 3 below illustrates both section 7 informal and formal consultation processes and how they relate to one another.

Informal consultation: Starting in the upper left corner of Figure 3 in the "**Federal Action**" box, follow the blue arrows through the "**Technical Assistance**" (green box) to determine whether a listed species and/or critical habitat are/may be present in your action area. If not, document that and you are done at "**End**". If there are species/critical habitat present, then prepare a BA ("**Action Agency Prepares a BA**" box) in the "**Informal Consultation**" (yellow box). With a BA determination of either "***not likely to adversely affect***" or "***wholly beneficial effect"***, follow the blue arrows leading to concurrence of the USFWS/NMFS determination and informal consultation is completed in the lower right corner at "**End**". If however, USFWS/NMFS does not concur with your determination, follow the red arrows back up to the "**Refine Project**" box and ultimately back up to the "**Action Agency Prepares a BA**" box. You then must reassess any changes made to your action and/or you analysis and once again follow the blue arrows depending on the outcome of your reassessment. Informal section 7 consultations are typically completed in **30 days** or less after the USFWS/NMFS receives (and concurs with) a "***not likely to adversely affect***" or "***wholly beneficial effect"*** determination by providing their written concurrence.

Formal consultation: Starting in the "**Federal Action**" box, follow the blue arrows through the "**Technical Assistance**" (green box) this process initially follows the same path as described above, going through the "**Technical Assistance"** and into "**Informal Consultation**" (yellow box). However, upon preparing a BA ("**Action Agency Prepares a BA**" box) resulting in a "***likely to adversely affect***" determination for listed species and/or critical habitat, follow the black arrow to begin "**Formal Consultation**" phase (shown in a black box). This begins with USFWS/NMFS' acceptance of your BA containing your assessment and findings of effects. The USFWS/NMFS will then write a BO ("**FWS Prepares a BO**" box) and following the black arrow, makes one of four determination that the proposed action will: "***not likely to jeopardize a listed species***", "***not destroy or adversely modify critical habitat***", is "***likely to jeopardize a listed species"***, or "***destroy or adversely modify designated critical habitat***". With the first two BO determinations, follow the black arrow, and formal consultation is completed at the "**End**". If however, USFWS/NMFS concludes your action may "***jeopardize a listed species***" or "***destroy or adversely modify critical habitat***" then follow the red arrows from the "**FWS Prepares a BO**" box over to the "**Refine Project**" box, and ultimately back up to the "**Action Agency Prepares a BA**" box. You then must reassess the effects from any changes made to the proposed action to avoid jeopardy or adverse modification specified by USFWS/NMFS. Once again, follow the black arrows back through the "**Formal Consultation"** process and ultimately concluding at "**End**". Most formal section 7 consultations are completed in **135 days** or less if there is no "***jeopardy of a listed species"*** or ***"destruction or adverse modification of critical habitat."*** Also see Appendix F and G for more information on the section 7 process.

Figure 3. "Typical" informal and formal consultation process flow chart.



2.3 Tips to Expedited Section 7 Consultation Process

- **Use this Guidebook and its templates**.
- **Prepare a SEPARATE BA** – not an embedded analysis in your NEPA document.
- **Detail matters**!! Make sure your BA is complete. Following the format and guidance in this document and other resources can ensure you adequately address each of the important aspects of this process. If USFWS/NMFS has questions or if your document is incomplete it could ultimately delay your action.
- **Contact** your **NPS Regional Endangered Species Coordinator** with questions and guidance.
- **Coordinate** with your **local USFWS/NMFS office** – ***early*** and ***often***!
- You are the **"eyes and ears"** for the USFWS/NMFS. Make sure your provide them with all of the information needed for them to understand the scale and scope of the proposed action and the effects your action will have on listed species and designated critical habitat. The USFWS/NMFS is likely not familiar with your action or the area.
- **Build conservation measures (design criteria or mitigation) into your action's design up front** while developing your action to avoid and minimize potential adverse effects to federally listed species and critical habitat.
- **Plan time** to determine effects and get compliance so that your action is not delayed. Do not wait until the last minute for ESA compliance. It takes time – often more than you estimate.

See Appendix F for a process template for section 7 consultation and coordination with the USFWS/NMFS. For further guidance and assistance in the section 7 consultation process, contact your NPS Regional Endangered Species Coordinator, Regional Environmental Quality Division, WASO NRSS Environmental Quality Division, or Denver Service Center Planner.

2.4 Irreversible and Irretrievable Commitment of Resources

Both NEPA and ESA (in section 7(d)) require that we identify "*... any irreversible and irretrievable commitments of resources which would be involved in our proposed action should it be implemented*." This is to prevent the foreclosure of the formulation or implementation of "***reasonable and prudent alternatives***" that would avoid "***jeopardy***" of a listed species or "***adverse modification***" of critical habitat. Irreversible and irretrievable resource commitments often, but not always, are related to the use of nonrenewable resources and the effects that using these resources would have on future generations. Irreversible effects primarily result from the use or destruction of a specific resource (e.g., energy and minerals) that cannot be replaced within a reasonable time frame. Irretrievable resource commitments involve the loss in value of an affected resource that cannot be restored as a result of the action (e.g., extinction of a threatened or endangered species, disturbance of a cultural site, etc.).

2.5 Adminstrative Record

The "Administrative Record" should include important emails, phone calls, meeting notes, supporting documents, data sources, etc. Also include all references used and cited in your BA. In the event your analysis or project is challenged, you will need this information to support your analysis and effect determinations to a court. Having this readily available increases your ability to respond to litigation and legal review and supports your analysis and decision. Courts are limited to items that are in the administrative record.

3.0 Utilizing the Best Available Data and Science

Both the ESA and NPS Director's Order 79 mandate the use of the best available science and data and to maintain a high level of scientific integrity. For more information, see the NPS website for the full text of Director's Order 79: https://www.nps.gov/policy/DOrders/DO_79.pdf. For section 7 consultation purposes, when site-specific information is lacking and faced with uncertainties or data gaps, we should develop reasonable projections of potential conflicts between the proposed activities and listed species. Sometimes we may need to assume the "**worst case scenario**" and "**err on the side of the species**" due to uncertainty.

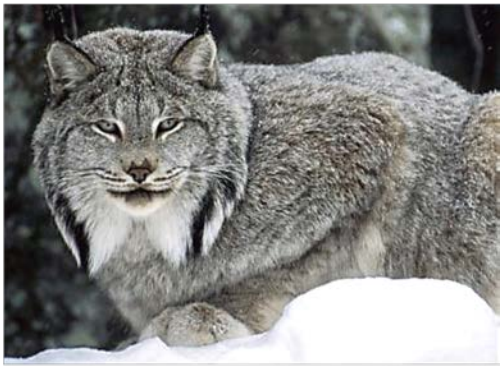
4.0 BIOLOGICAL ASSESSMENTS

*A BA is **written record** or **documentation** of your analysis of effect to T&E species and critical habitat.*

What is a BA? A BA serves multiple purposes, but its primary role is to provide **written documentation** of the action agency's **analysis of effect** from a proposed action to ESA protected species and designated critical habitats, resulting in **effect determination** for each, with adequate **rationale** to support those determinations. It is your **written record** or **documentation** in accordance with the Act and NEPA. It must contain **all materials directly or indirectly considered in making your effects determination.** Reasons for thorough documentation in a BA include: 1) leads to reasoned and informed science-based decisions; 2) ensures defensible decisions if challenged in court; 3) provides a track record and documentation in the event there are changes in personnel years later; 4) maintains agency credibility with the public; and most importantly 5) it is required by ESA, NEPA, and NPS Policy.

This documentation can take many forms. This Guidebook and templates provide examples of how to best document your analysis. The purpose of a BA is three-fold to: 1) evaluate the potential effects of an action on listed species and critical habitat (i.e., exposure to stressors followed by response); 2) determine whether any listed species or critical habitat is likely to be adversely affected by the action; and 3) determine whether formal consultation is necessary. The NPS and other federal agencies need to ensure their management actions adhere to these and other requirements under the Act and this is documented in the BA.

Although there are no statutory or regulatory mandated contents for a BA, recommended elements are identified at 50 CFR §402.12(f). By regulation, a BA is prepared for "major construction activities" considered to be federal actions (such as those conducted by the NPS) significantly affecting the quality of the human environment under NEPA. A BA can also be required if federally listed species or designated critical habitat may be present in the action area or will be affected by a management action [50 CFR 402.14(c)], and is optional only if proposed species or proposed critical habitat is involved. This analysis is required to comply with section 7 consultation. USFWS/NMFS uses the documentation in your BA along with other available information to prepare their BO to determine if listed species (at the species or larger population level) will be "***jeopardized***" or critical habitat will be "***destroyed or adversely modified.***"



A BA should **NOT** include an analysis pertaining Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act, or other non-ESA/NPS compliance. It is more appropriate to document this in another NEPA document. We address federally listed (or proposed) species and designated (or proposed) critical habitat in a BA for section 7 consultation purposes under ESA. Additionally, NPS Management Policy (2006) states we must also "*inventory, monitor, and manage state and locally listed species in a manner similar to its treatment of federally listed species to the greatest extent possible. In addition, the Service* [NPS] *will inventory other native species that are of special management concern to parks (such as rare, declining, sensitive, or unique species and their habitats) and will manage them to maintain their natural distribution and abundance.*" Furthermore, NPS policy also directs us to "*determine all management actions for the protection and perpetuation of federally, state, or locally listed species through the park management planning process, and will include consultation with lead federal and state agencies as appropriate*."

Although not required for ESA compliance, to meet this NPS Policy we can, but it is not required, to document these other requirements for state and locally listed species or "species of local concern" in our BA and/or NEPA documents. If they are included in a BA, your discussion of other species should be separated from federally listed species/critical habitat in different sections so USFWS/NMFS can focus their review on federally protected species only.

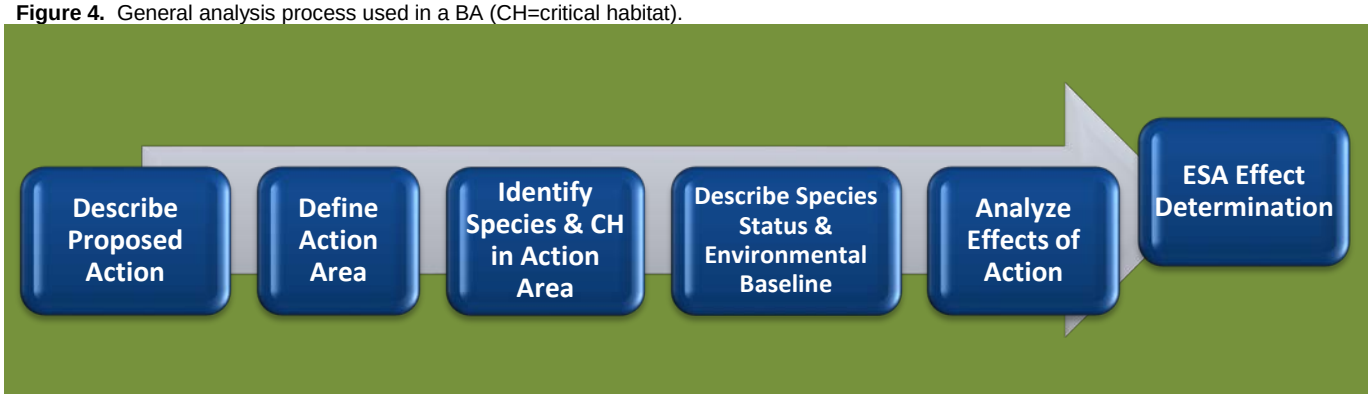
BAs should not be confused with Environmental Assessments (EA), Environmental Impact Statements (EIS), or Categorical Exclusions (CE) which are all NEPA documents. EIS and EAs are designed to provide an analysis of multiple possible alternative actions on a variety of environmental resources in addition to federally listed species, and often use different definitions or standards. CEs are typically for smaller actions that have fewer impacts that have been excluded from more in-depth analysis under NEPA. The BA however, documents potential impacts from your proposed management action to federally listed/proposed species and designated/proposed critical habitat that ultimately can be used in support one of these NEPA documents in addition to ESA requirements.

Section 4.14 of the NPS NEPA Handbook (2015) requires that all consultation requirements defined under section 7 of ESA be completed before a Record of Decision (ROD) for an EIS or Finding of No Significant Impacts (FONSI) for an EA is signed. The NPS may not make any irreversible or irretrievable commitment of resources (discussed above) that could foreclose the formulation or implementation of reasonable and prudent alternative measures to address issues arising under the ESA. Regardless of whether the BA is embedded within the NEPA document or it is a stand-alone BA (typically included in the NEPA document as an appendix), it should if at all possible be made available to the public for review during the NEPA process.

*BAs **document** potential **impacts** to federally listed/proposed species and critical habitat that ultimately can be used in support of NEPA documents in addition to ESA requirements.*

If assistance or additional guidance is needed while developing your BA or conducting your effect analysis, contact your NPS Regional Endangered Species Coordinator. Figure 4 below illustrates the general progression of documentation as you prepare your BA document.

Figure 4. General analysis process used in a BA (CH=critical habitat).



This Guidebook presents two BA templates – a longer and shorter BA formats (sometimes referred to as a "Big B" and "Little b" BAs respectively) that can be used depending on the complexity, risk, and amount of effect to federally listed species/critical habitat. Below, is a detailed discussion of what to consider and address in each section of your BA using both formats. We also use shaded "exhibit text boxes" for each section containing specific language that can be inserted directly into your document. Some words in these examples are highlighted in yellow in all capital letters ("CAPS") for text that should be edited by you. Both BA templates are in their entirety in Appendix H. Other information is also provided in this Guidebook's appendices that will assist you in preparing your BA and conducting your analysis.

WORDS are IMPORTANT! In the Act and its guidance, words have specific and legal meaning that should not be mixed or used inappropriately in an ESA context. Such words (all discussed later in this Guidebook and in Appendix A) such as "***critical habitat***", "***action area***", "***cumulative effects***", "***insignificant***", "***discountable***", and others. We also must use specific legally defined terms for effect determinations such as "***no effect***", "***may affect, not likely to adversely affect***", "***may affect, likely to adversely affect***", "***take***", etc. In Section 6.0 and 7.0 of this Guidebook, we provide guidance for each section of a BA. Terms and phrases are defined in Appendix A.

4.1 Stand-Alone BA document or Embedded within a NEPA document?

We strongly suggest that you prepare a separate "stand-alone" BA document rather than embedding your BA into a NEPA document. Doing so will **expedite** the section 7 process and best **fulfill ESA requirements.** A separate BA document is specific to federally listed species and designated critical habitat and provides only the information USFWS/NMFS needs for their review for section 7 consultation. By using a stand-alone BA, the USFWS/NMFS does do not have to wade through a large body of information in an EA or EIS just to find your specific discussions on federally listed species/critical habitat and the effects of the proposed management action. **A separate BA gives them only what the need to complete consultation.**

*Having a stand-alone BA results allows a more **efficient** and **quicker** review by USFWS/NMFS that can **expedite** the consultation process considerably.*

For actions that "***may effect***" T&E species or their habitats, critical habitat, or those with a **higher risk or controversy**, a separate or stand-alone BA is more appropriate format. Having a stand-alone document can result in a more **efficient and quicker review** by USFWS/NMFS, considerably expediting the consultation process. This is often desirable for actions that have a **short time frame** and deadline to complete consultation. Also, providing specific T&E species information and analysis in a separate BA will provide the USFWS/NMFS with more **specific information** and a more **detailed, focused**, and **thorough analysis** of effects for their review and preparation of their BO. Often "embedded BAs" simply **do not contain all of the necessary information** needed for complex actions or those with adverse effects; therefore the USFWS/NMFS may need to request additional information from the action agency in order to complete section 7 consultation. This often results in considerable delays. A stand-alone document can be attached to the NEPA document (EA or EIS) as an appendix or included in the Administrative Record. Important sections from the BA can be summarized and inserted into the main body of the NEPA document itself.

Conversely, if you decide to have your **BA embedded in a NEPA document** that will be submitted to USFWS/NMFS for review, it is essential that you clearly identify in that document which is the proposed management action (e.g., selected or preferred alternative) that you are consulting with them. Your embedded BA must clearly **define the action area**, provide the **project description**, identify **species and critical habitat present**, include an **analysis of direct, indirect, and cumulative effects** from your action and its **interrelated and interdependent actions** with **rationale**, and ultimately conclude with an ESA **effect determination** for each species and critical habitat. Each of the sections presented in this Guidebook should be included in the embedded BA in a NEPA document. It is also essential for a more expeditious review that sections in the NEPA document pertaining to federally listed, proposed, and candidate species and designated/proposed critical habitat be separated and clearly identified so USFWS/NMFS can easily find those sections to review. Consult with your local USFWS/NMFS biologist to determine their preferences. The NPS Environmental Quality Division can also discuss formatting the appropriate sections in the NEPA document.

*Your analysis/size of document should be **commensurate with** the **complexity** of your action, **level of risk** or **controversy**, **information** available, **importance of the area** to the species, and the relative **impacts** to species addressed.*

Let the project and the level of effects dictate the length of your document.

If it's not written down there is no way others will know what you considered and your completed thought process and rationale used in making your effect determination.

The length of a BA can be very short or many pages, depending on the species involved, complexity of the action, and the degree of adverse effects to the species within the action area. The depth of your analysis and size of your BA document should be **commensurate** with the complexity of your proposed action, level of risk or controversy, amount of information available, importance of the area to the species, and importance of effects to each species and/or critical habitat addressed. **Let the action and the level of effects dictate the length of your document.** However, make sure all legal and biologically important information is present to support your ESA effect determination.

Your BA provides a written documentation of your analysis. **If what you considered is not written down and documented in a BA, others will have no way of knowing your thought process (rationale),** what you considered, what you dismissed and why, and may ultimately be viewed by the courts as "***arbitrary and capricious***" if legally challenged.

4.2 Cover Letter

A cover letter should be sent to the USFWS Ecological Services Office or NMFS office with jurisdiction for your area for actions with a ***"may affect"*** determination (for ***"may affect, not likely to adversely affect", "may affect, wholly beneficial effect"*** or ***"may affect, likely to adversely affect"*** determinations). The federal action agency must obtain their concurrence with its determinations to fulfill section 7(a)(2) consultation requirements. A cover letter is only needed if you are sending the USFWS/NMFS your BA or NEPA document. Include in your letter the project title, lead federal agency, and consultation number (if applicable), species addressed, etc. Your ESA effect determination needs to also be clearly stated in the letter for each species addressed and their designated critical habitat (when applicable).

If your analysis is embedded within a NEPA document, all pertinent sections should be clearly identified in your cover letter so USFWS/NMFS can easily find all relevant sections for a more efficient review.

In your cover letter, only include your ESA determination of effect from the proposed management action on federally listed/proposed T&E species and designated/proposed critical habitat. Do not include other state or locally listed species or NPS "species of concern". This letter is intended for USFWS/NMFS for section 7 consultation purposes pertaining ESA compliance only.

Enclose either your stand-alone BA document (preferred) or analysis that is imbedded into a NEPA document with the cover letter. If your analysis is embedded within a NEPA document, all pertinent sections should be clearly identified in your cover letter so the USFWS/NMFS can easily find all relevant sections for a more efficient review. If you are analyzing multiple alternatives in your BA or NEPA document, make sure it is clear in your cover letter which specific alterative is the proposed action that is being consulting on, so the USFWS/NMFS can focus their attention on that alternative. See Appendix H for templates of a cover letter to the USFWS/NMFS for informal and formal consultation.

Exhibit 1 below can be used as a cover letter template for submitting a BA to USFWS/NMFS for informal section 7 consultation purposes (with a "***not likely to adversely affect"*** determination). *(Note: In all exhibits in this document, words in all capital letters (***"CAPS"***) should be edited as necessary for your action and italicized words in all capital letters ("CAPS") is guidance).*

Exhibit 1. INFORMAL CONSULTATION COVER LETTER

USE AN OFFICIAL NPS LETTERHEAD

USFWS/NMFS CONTACT PERSON'S NAME
STATE? Field Supervisor
U.S. Fish and Wildlife Service or National Marine Fisheries Service
STATE? Field Office – Ecological Services
THEIR ADDRESS
CITY, STATE, ZIP

Dear Mr./Ms. (THEIR NAME):

I am requesting your written concurrence of our determination of effects for the proposed NAME OF PROJECT on federally listed species and designated critical habitat (*AS APPROPRIATE*) in accordance with section 7(a)(2) of the Endangered Species Act of 1973 (as amended) (Act), codified in 50 CFR §402.02 and §402.14. Technical Assistant/Informal consultation (*WHATEVER IS APPROPRIATE*) was initiated on DATE, between PERSON'S NAME of your office and YOUR NAME AND TITLE for the National Park Service, and subsequent telephone conversations (OTHER - FIELD VISITS OR MEETINGS) occurred on (DATES). The proposed NAME OF PROJECT is located in PARK NAME AND STATE. *USE ONE OF THE TWO FOLLOWING PARAGRAPHS DEPENDING ON YOUR DOCUMENTATION:*

> ***IF A STAND-ALONE BA*** *WAS PREPARED AS YOUR ANALYSIS INSERT THE FOLLOWING LANGUAGE:* With this letter, we submit our biological Assessment (BA) containing a description of the proposed management action, species addressed, discussion of effects, and our effect determinations for the following federally listed species and designated critical habitat *(IF APPROPRIATE). LIST EACH SPECIES ADDRESSED – [BOTH COMMON AND SCIENTIFIC NAMES] AND THEIR FEDERAL STATUS.*
>
> ***OR***
>
> ***IF YOUR BIOLOGICAL ANALYSIS IS AN EMBEDDED BA IN AN EA/EIS*** *(NEPA DOCUMENT) OR OTHER THAN A STAND-ALONE BA BE SURE TO HIGHLIGHT FOR THE USFWS/NMFS WHERE THEY CAN FIND THE INFORMATION THEY NEED TO REVIEW (INSERT THE FOLLOWING):* With this letter, we submit our embedded biological Assessment (BA) in the attached *(NAME)* Environmental Assessment (EA) (OR EIS). Please refer to sections (*X, X, and X*) for a description of the proposed management action, species addressed, discussion of effects, and our effect determinations. These sections contain our analysis of effects to the following federally listed species and designated critical habitat *(IF APPROPRIATE). LIST EACH SPECIES ADDRESSED – BOTH COMMON AND SCIENTIFIC NAMES AND THEIR FEDERAL STATUS.*

We have determined that our proposed action "*may affect, not likely to adversely affect*" the LIST EACH SPECIES as the effects of this action are insignificant and/or discountable for the reasons stated in our assessment *(USING THESE TERMS IS ONLY APPROPRIATE FOR "may affect, not likely to adversely affect" - NOT APPROPRIATE FOR OTHER DETERMINATIONS]). IF THERE ARE ANY "NO EFFECT" DETERMINATIONS FOR SPECIES YOU ADDRESSED THEN LIST THOSE SPECIES WITH THIS DETERMINATION AS WELL. ALSO, STATE WHETHER THERE IS ANY DESIGNATED CRITICAL HABITAT IN THE AREA AND IF SO YOUR EFFECT DETERMINATIONS.* If you agree with these determinations, please send your written concurrence to me.

We appreciate your review and assistance in this consultation process as we are committed to the conservation of federally listed species occurring in the PARK NAME. Please contact THE CONTACT PERSON at our office at TELEPHONE NUMBER if you have any questions regarding this request.

Sincerely,

NAME/TITLE - SUPERINTENDENT OR OTHER

Enclosures: Biological Assessment, OTHERS?...

Exhibit 2 below can be used as a letter template requesting initiation of formal consultation with submittal of a BA to USFWS/NMFS for formal section 7 consultation purposes (with a "***likely to adversely affect***" determination).

Exhibit 2. FORMAL CONSULTATION INITIATION LETTER

USE AN OFFICIAL NPS LETTERHEAD

USFWS/NMFS CONTACT PERSON'S NAME
STATE Field Supervisor
U.S. Fish and Wildlife Service or National Marine Fisheries Service
STATE Field Office – Ecological Services
THEIR ADDRESS
CITY, STATE, ZIP

Dear Mr./Ms. (THEIR NAME):

I am submitting to you our determination of effects regarding federally listed species and/or designated critical habitat (IF APPROPRIATE) for the proposed NAME OF PROJECT. With this submittal, we are requesting initiation of formal consultation with you in accordance with section 7(a)(2) of the Endangered Species Act of 1973 (as amended) (Act), codified in 50 CFR §402.02 and §402.14.

We have determined that this proposed action "*may affect, likely to adversely affect*" the NAME OF EACH SPECIES AND CRITICAL HABITAT AND ITS DETERMINATION FOR EACH.

Technical assistant/Informal consultation (*WHATEVER IS APPROPRIATE*) was initiated on DATE, between PERSON'S NAME of your office and YOUR NAME AND TITLE for the National Park Service, and subsequent telephone conversations (OTHER - FIELD VISITS OR MEETINGS) occurred on (DATES). The proposed NAME OF PROJECT is located in PARK NAME AND STATE. *(USE ONE OF THE TWO FOLLOWING PARAGRAPHS DEPENDING ON YOUR DOCUMENTATION):*

> ***IF A STAND-ALONE BA*** *WAS PREPARED AS YOUR ANALYSIS INSERT THE FOLLOWING LANGUAGE:* With this letter, we submit our biological assessment (BA) containing a description of the proposed management action, species addressed, discussion of effects, and our effect determinations for the following federally listed species and designated critical habitat *(IF APPROPRIATE). LIST EACH SPECIES ADDRESSED – [BOTH COMMON AND SCIENTIFIC NAMES] AND THEIR FEDERAL STATUS.*
>
> ***OR***
>
> ***IF YOUR BIOLOGICAL ANALYSIS IS AN EMBEDDED BA IN AN EA/EIS*** *(NEPA DOCUMENT) OR OTHER THAN A STAND-ALONE BA BE SURE TO HIGHLIGHT FOR THE USFWS/NMFS WHERE THEY CAN FIND THE INFORMATION THEY NEED TO REVIEW (INSERT THE FOLLOWING):* With this letter, we submit our embedded biological assessment (BA) in the attached (*NAME)* Environmental Assessment (EA) (OR EIS). Please refer to sections (*X, X, and X*) for a description of the proposed management action, species addressed, discussion of effects, and our effect determinations. These sections contain our analysis of effects to the following federally listed species and designated critical habitat *(IF APPROPRIATE). LIST EACH SPECIES ADDRESSED – BOTH COMMON AND SCIENTIFIC NAMES AND THEIR FEDERAL STATUS.*

We appreciate your review and assistance in this consultation process as to fulfill our consultation responsibilities under the Act. We are committed to the conservation of federally listed species and protection of designated critical habitat (IF APPROPRIATE) occurring in/near the PARK NAME. Please contact THE CONTACT PERSON at our office at TELEPHONE NUMBER if you have any questions regarding this request.

Sincerely,

NAME/TITLE - SUPERINTENDENT OR OTHER

Enclosures: Biological Assessment, OTHERS?...

5.0 Biological Assessment General Format and Style

The following is general BA guidance. BAs are public documents. Write your document for the non-biologist (e.g., deciding official, public, or judge) as the target audience. Be clear, short, and concise, using plain language (see http://www.plainlanguage.gov/). Try to avoid technical jargon that is not readily understandable to people outside your agency or area of expertise. When using acronyms or abbreviations always spell them out and define them when first used in your document, then use them consistently thereafter.

If possible, have someone else review your BA to make sure it makes sense, is well-organized, well written, and uses proper grammar and spelling. A fresh set of eyes can be extremely helpful in this review. Content is most important, although appearances and how the information is formatted and presented also make a huge difference in the perception of its content. A professionally written, well organized, and properly formatted document lends itself to credibility of its content. Conversely, a poorly written BA (e.g., poor grammar, miss-spellings, inconsistent format, etc.) will decrease its perceived credibility.

Be sure to use the terms "***affect***" and "***effect***" properly: **affect** (a verb) is to bring about change; whereas **effect** (usually a noun) is the result. ESA legally defined terminology for effect determinations must also be used as discussed in later sections of this Guidebook.

Your document will likely be reviewed by someone that is unfamiliar with the project and the action area. One of your main audiences is the USFWS/NMFS who has limited knowledge of the action area, local species information, habitats present, etc. Therefore, you must "paint the picture" so they can clearly understand what management action is being proposed, species/habitats present, etc. You are the "eyes and ears" of the USFWS/NMFS. Use tables, photographs, maps, or other visual aids where possible to support your descriptions to help them better understand the project and habitats present.

MAKE CONNECTIONS – TELL THE STORY!

Describe the action. Explain how the action affects the species and habitat. Consider and balance various effects (short/long, positive/negative).

Because your BA documents your analysis which is commensurate with the complexity of the proposed management action, the number of species addressed and, most importantly, the magnitude of effect on these species and critical habitat, we suggest using one of two formats presented in this document below. First, in Section 6.0 of this Guidebook we present a longer, more in-depth template for more complex actions or substantial effects such as "***may affect, not likely to adversely affect***" or "***may affect, likely to adversely affect***" determinations for species, "***destruction or adverse modification***" of critical habitat, an may or may not have ***incidental take*** of a species. In Section 7.0 of this Guidebook, we suggest a shorter version BA template for actions that have "***no effect***" determinations with no ***incidental take.*** A template for each format is in Appendix H. A separate MSWord document with both templates is also available to assist you in writing your BA.

5.1 Six Tips for a Better BA

1. **Clearly describe the proposed action and all of its components** relative to how they might impact species you are addressing.
2. **Focus on limiting factors** and threat to these species.
3. **Make connections – tell the story**
4. **Provide the rationale** for your effect determinations.
5. Illustrate what you want to say with **maps, figures, and photos.**
6. **Cite literature and other sources used** in your analysis.

6.0 BA SECTIONS FOR COMPLEX ACTIONS OR WITH EFFECTS "*MAY AFFECT*"

The following is a step-by-step outline for a stand-alone BA for actions that "***may affect***" species and/or designated critical habitat. This format is intended for larger, more complex, or actions with greater impacts to T&E species and/or critical habitat. Using this outline ensures that all the required content and analysis for ESA and NEPA compliance is properly documented. Although the order of these sections can differ from that presented here, we offer this format as a good example that has been widely accepted by USFWS/NMFS. Some sections recommended in this Guidebook are not specifically required by statue (law); however, the USFWS/NMFS will ultimately need this information to include in their BO, and to complete consultation. By providing this information, you will be assisting them in their ability to review and conduct their analysis, significantly expediting the time your project may take to complete the section 7 consultation process. Important considerations are also presented and examples of how particular topics can be addressed are included in shaded text boxes. They provide specific language to insert into sections of your BA. Yellow highlighted words in CAPS should be edited as necessary or provides guidance to consider. Appendix H contains this template to assist you in writing your BA. A "screen-fillable" MSWord document is available to assist you in writing your BA. Contact your NPS Regional Endangered Species Coordinator for this document.

6.1 Cover Page of a BA

The cover page should include the date the document was prepared; project name; lead and cooperative federal agencies; document reference number (if applicable); county, state, and National Park/Monument/Unit, etc. where the proposed action is located. List names of person(s) responsible for preparing and reviewing the document and contact person. It should be no more than one page in length. The title of the document should be consistent with the NEPA document. Insert Exhibit 3 below into your BA.

Exhibit 3.

NAME OF PROJECT
BIOLOGICAL ASSESSMENT
***XXXXX* (NPS UNIT)**
MONTH, DAY, YEAR
NATIONAL PARK SERVICE – U.S. DEPARTMENT OF INTERIOR

Prepared by:

/S/ YOUR NAME Date: **XXXXX**
YOUR NAME
YOUR TITLE

/S/ OTHERS NAME *(if applicable)* Date: **XXXXX**
THEIR NAME
THEIR TITLE

Reviewed/Approved by: *(if applicable)*

/S/ THEIR NAME Date: **XXXXX**
THEIR NAME
THEIR TITLE

Submitted to: *(Deciding Official if wanted or needed)*

/S/ THEIR NAME Date: **XXXXX**
THEIR NAME
THEIR TITLE

YOUR Contact Information
NAME OF PREPARER
YOUR TITLE
PARK UNIT
MAILING ADDRESS
YOUR TELEPHONE
YOUR EMAIL ADDRESS

6.2 BA Table of Contents

This is optional, but strongly suggested for larger documents that may receive wide distribution or complex actions to help the reader (particularly USFWS/NMFS) find particular sections they need to review. Insert Exhibit 4 below in your BA.

Exhibit 4.

TABLE OF CONTENTS

UPDATE PAGE NUMBERS

LIST OF FIGURES

LIST OF TABLES

APPENDIX A, B, ETC. (*IF NEEDED*)

6.3 Sections of a BA for Complex Actions or with Effects

The numbered headings shown below in unshaded text boxes should be used for each section of a longer format BA for actions resulting in a "***may affect***" determination, "***destruction or adverse modification***" of critical habitat, or "***incidental take***" (terms defined below). Further clarification, guidance, and considerations are discussed in each section. In addition, shaded "exhibit text boxes" contain specific suggested language with highlighted text to be customized for your particular action that should be inserted directly into your BA. The order of these sections can differ from what is suggested below; however, for most documents, this order provides the most logical arrangement of these sections. Refer to the templates in Appendix H for more information for each section. Below is a detailed breakdown of each numbered BA section to assist your understanding of their components.

1.0 INTRODUCTION

Begin with an introduction of the document; however, it is not required. This can be helpful in setting the stage and providing a background of the proposed action.

1.1 PURPOSE OF THIS BIOLOGICAL ASSESSMENT INTRODUCTION

Specify the purpose of BA so the reader can quickly understand the scope of the action being analyzed. Reference legal requirements (i.e., applicable laws, regulations, pertinent direction, etc.). Briefly describe the nature of the action (a more detailed action description should be described in the proposed management action in Section 3.0 of your BA). Insert Exhibit 5 below into your BA.

Exhibit 5.

1.0 Introduction

The Endangered Species Act of 1973 (16 U.S.C. 153 *et seq*.), as amended (ESA or Act) in section 7(a)(1) directs federal agencies to conserve and recover listed species and use their authorities in the furtherance of the purposes of the Act by carrying out programs for the conservation of endangered and threatened species so that listing is no longer necessary (50 CFR §402). Furthermore, the Act in section 7(a)(2) directs federal agencies to consult (referred to as section 7 consultation) with the U.S. Fish and Wildlife Service (USFWS) or National Marine Fisheries Service (NMFS) when their activities "may affect" a listed species or designated critical habitat. Additionally, NPS Management Policy (2006) directs the NPS to "inventory, monitor, and manage state and locally listed species in a manner similar to its treatment of federally listed species to the greatest extent possible."

1.1 Purpose of this Biological Assessment

This biological assessment (BA) analyzes the potential effects of the proposed NAME OF PROPOSED MANAGEMENT ACTION on the NAME OF PARK (Park)/Monument/Unit on federally listed threatened, endangered, proposed animal (wildlife, invertebrates, and fish) and/or plant *(WHATEVER IS APPROPRIATE*) species, and critical habitats, pursuant to section 7(a)(2) of the ESA. Federally, state, or locally *(IF NON-FEDERAL SPECIES ARE INCLUDED IN THIS DOCUMENT)* listed threatened and endangered animal and/or plant species and critical habitat meeting the following criteria are addressed in this assessment:

1. known to occur in the Park based on confirmed sightings;
2. may occur in the Park based on unconfirmed sightings;
3. potential habitat exists for the species in the Park; or
4. potential effects may occur to these species.

1.2 CURRENT MANAGEMENT DIRECTION

Briefly list current management direction (in a bulleted list) within the action area and for listed species and designated critical habitat. In addition, specifically describe management direction relevant to habitats that may be affected, if applicable. Insert Exhibit 6 below into your BA.

Exhibit 6.

1.2 Current Management Direction

Current management direction for federally listed and proposed threatened and endangered species can be found in the following documents, filed at our office:

- Endangered Species Act of 1973, as amended (ESA or Act)
- 1916 NPS Organic Act
- NPS General Authorities Act of 1978
- NPS Management Policies 2006
- Migratory Bird Treaty Act (MBTA)
- National Environmental Policy Act (NEPA)
- Species-specific recovery plans which establish population goals for recovery *(IF APPLICABLE)*
- Species management plans, guides, or conservation strategies *(IF APPLICABLE)*
- Park management plans *(IF APPLICABLE)*
- Others??? (*ADD AS NECESSARY*)

2.0 CONSULTATION HISTORY

Briefly, chronologically summarize all important contacts with USFWS/NMFS regarding **this action only**. If none has occurred, state so. Only include important discussions/information, agreement, and milestones such as the dates of initiation of consultation, information exchanges, dates of important meetings, important phone calls, site visits, person contacted, etc. If lengthy, you can put this information into a table.

3.0 PROPOSED MANAGEMENT ACTION AND ALTERNATIVES CONSIDERED

Describe the proposed management action you are consulting with the USFWS/NMFS on. You can also include the No Action alternative and other alternatives considered as well. If you discuss more than one alternative, clearly identify which is the proposed action/preferred alternative (i.e., what are you proposing to do). For ESA section 7 consultation requirements, we are only required to consult on the Proposed Action and not others considered; however, we can also include our analysis of the effects from other alternatives considered (including the No Action Alternative). This can be very helpful to compare alternatives and their effects to listed species with those from the Proposed Action. For NEPA, we must analyze the effects from all alternatives (No Action & each Action Alternative). Your analysis of ALL alternatives is still required under NEPA. You can include other alternatives in your BA, if you do, be sure to clearly indicate which alternative is the Proposed Action in the cover letter and here in this section.

*We only consult with USFWS/NMFS on the **Proposed Action** (or preferred/selected alternative). However, we can also include our analysis of other alternatives (including the No Action) and include that analysis in your BA if desired – but not this is required for ESA.*

This section should be as short as possible – while still giving the reader a clear understanding of what is proposed. USFWS/NMFS may be unfamiliar with the proposed action. This section should contain everything they need to fully understand the size, scope, and important components of this action that will be analyzed later in the BA.

Describe the proposed action or project. A description of your action can be very short or longer depending on the complexity of the action. Include **what** is being proposed, **when** will it occur, **where**, **why** (e.g., purpose and need statement)], **how** will it occur, etc. It is very important to **DECONSTRUCT** the proposed action and describe each **individual components**. Specifics are critical. For example: *Are there permanent or temporary roads? Where will the gravel or off-site fill come from? How will it get there? When will it be hauled? Are there other associated activities with road building?* Be sure to include the **timing, intensity,** and **duration** of each individual component and how each of these components will be carried out. You can often obtain much of this information directly from of your NEPA document, although you may wish to condense it or provide more relative information.

Project description *and* ***Purpose and Need****. Describe the following:*

*1) W**hat** the project or action is;*

*2) **Where** the project is (refer to attached maps);*

*3) **When** the action is going to take place, time line/implementation schedules;*

*4) **Duration** – how long will it take place;*

*5) **Who** is going to do the action and under what authority; and*

*6) **How** the action will be accomplished–e.g., bulldozer, pile driver, chain saw, backhoe, dump truck, etc.*

*If it is multi-phased, **DECONSTRUCT** the action into its **individual components** and describe the **what, when, where,** and **how** of each phase separately. Identify any conservation measures/design criteria/mitigation/best management procedures/etc. that will be implemented to avoid, reduce, or minimize adverse effects to species or critical habitat.*

Provide enough information so that your document can stand alone; however, the NEPA document can also be referenced for some specific details if necessary. Information provided should be sufficient to provide a foundation for the reader to clearly understand of what is being proposed and what will be analyzed for effects to T&E species/habitats and critical habitat. Include all pertinent conservation measures (design criteria or mitigation) that have been built in to avoid or minimize adverse effects to species/habitat. Include maps, photos, etc. to provide the reader a better understanding of existing conditions, what actions are proposed, and where they are located. The reader is likely unfamiliar with your proposed action so everything they need to know must be included. If the USFWS/NMFS doesn't fully or correctly understand the size, scale and scope of your proposed action, delays will occur as they will need to request more information to better understand your action.

*Provide a good **foundation** so the reader can clearly understand what is being proposed and what will be analyzed for effects to each species and their habitats.*

How are you planning on carrying out the action?

Examples*: What equipment or methods may be used? How will the site be accessed? What time of year will the action be conducted? What type of equipment will be used? How long will the activity take place etc.?* Include maps of the affected area, vicinity, project site, etc. Refer to CE/EA/EIS for more information if necessary.

4.0 Action Area Description

Clearly define the action area

Defining the action or project area is a **critical early step** in your BA analysis. The action area encompasses the entire geographic area whereby your proposed management action will directly and indirectly impact or affect the ***physical, chemical***, and ***biological*** components of ***land***, ***air***, and ***water***. The action area directly influences which

species you will consider in your BA and will assist you in developing a list of species/critical habitat that could be impacted by your action. It will also identify the area you describe as the **environmental baseline** and the area you will address **cumulative effects**. Lastly, it focuses your analysis on the area of the potential **effects** of the proposed action and any interrelated and interdependent actions to those species and their habitat. Most importantly, defining the action area here ultimately defines the **scale** or **bounds** of your analysis from this point forward in the BA. See Appendix D for more information on how to define the action area.

The action area often does not always include the entire range of the species as shown in Figure 5 below; rather it often only includes a portion of its range. Your analysis should focus on how the proposed action will affect species at the individual level within the action area– not at the population level for wide-ranging species that extend well beyond the action area. Focus your assessment on the impacts to each species, and how they will respond to your action within the action area, not the entire range of that species. The USFWS/NMFS will look more broadly at the population or entire range of the species level in their BO for their jeopardy determination. That broader analysis is beyond what is required for action agencies to do under the Act –it's the USFWS/NMFS' responsibility to consider the overall effects at the species population level.

Be sure to consider far reaching effects to land, air, and water–those that extend beyond the action's footprint for inclusion in your action area. The action area is rarely if ever, restricted to the project's footprint. The effects from an action almost always extend well beyond the bounds of ground disturbance for example, or the area an activity takes place. As shown in Figure 6 below, examples may include dust from construction activities, lighting during construction or operation of a facility (e.g., parking lot or building lighting), noise from construction or ongoing uses and activities, and downstream effects such as sediment, water quality, or depletion effects. Make sure to also include off-site impacts such as gravel pits, water sources, etc. in your action area.

Figure 5. Example of an action area for a wide-ranging species (adapted from Endangered Species Consultation Handbook (USFWS/NMFS 1998).

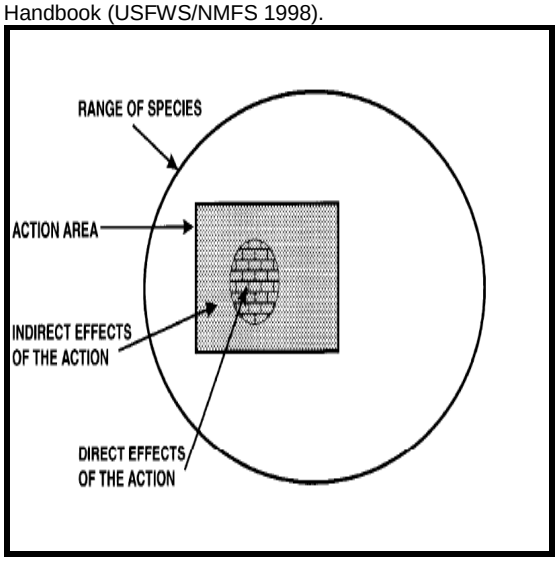
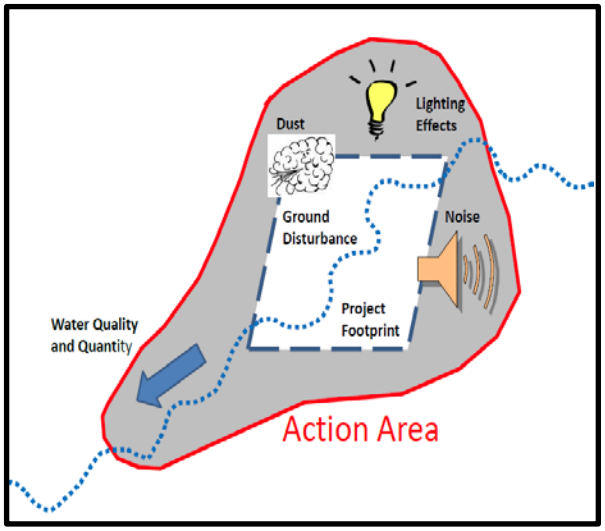


Figure 6. Effects to land, air, and water that may extend beyond the action's footprint (USFWS 2009).



The action area does not always contain the entire and final expression of the response to species' response to the action and the effects from the exposure of its stressors. **Either describe or show the action area using a map**. The action area does not grow or shrink based on the total biological effects to listed species[4]. Appendix D provides more information on determining the extent of your action area.

[4] Though caused by the action, biological effects of the action on species may in some cases be realized/expressed far beyond the action area (e.g., reduction in breeding success in remote breeding grounds, reduction in survival on wintering areas, migrational corridors, etc.). Although we must adequately describe all of the biological ramifications in our analysis, the action area does NOT expand to include these remote areas.

Describe the action area

Once you have defined the action area above, you will need to describe it (e.g., action's location [i.e., county, state, National Park/Monument/Unit, and legal description]; vegetation communities and ecosystem in the action area; topography; climate; and proximity to nearby roads, towns, or other landmarks, etc.). Give enough information to the reader so they know what vegetation and habitat conditions are present. Always include a map (topographic maps are particularly helpful) if not included above. Provide photographs, aerial photographs, etc. *What does the action area look like now (topography, vegetation, condition/trend, etc.)*? Include a description of the following:

*The action area is rarely if ever, restricted to the **project's footprint**. The effects almost always extend **well beyond the bounds of ground disturbance** where the activity occurs.*

- Vegetation communities/ecosystems that are present and their existing conditions
- Relevant historical conditions and past management activities
- Existing developments and human uses
- Describe current management or activities relevant to the action area. *How will it change the area?*

5.0 PRE-FIELD REVIEW

The ESA requires that the action agency obtain from USFWS/NMFS an "**official species list**" that identifies all T&E species and critical habitat occurring in the action area. This list must be current and no older than **90 days** upon completion of your BA. If you do not complete your consultation in that time, you must verify with the USFWS/NMFS this list is still correct and no changes have been made. There are two ways you can obtain a list.

*Obtain an "**official species list**" from the USFWS/NMFS that identifies all listed species and critical habitat occurring in the action area which is good for **90 days**.*

The preferred way to obtain your species list for your action area is using the USFWS' "**IPaC**" (*Information, Planning, and Conservation*) website portal http://ecos.fws.gov/ipac/. In the future, USFWS also intends to have more features available on this site to suggest specific conservation measures applicable to your type of action (note: this feature is still under development at the time of this writing). The IPaC system is designed for easy, public access to the natural resources information. Information regarding T&E species, critical habitat, migratory birds, management of invasive species, and other information can also be found.

One of the primary goals of the IPaC system is to provide this information in a manner that assists people in planning their activities within the context of natural resource conservation. The IPaC system also assists people through the various regulatory consultation, permitting, and approval processes administered by the USFWS. After filling out several screens and submitting the requested information, you will receive an email from the USFWS with their species list and a unique consultation number for this action. Be sure to make note of that number in your BA under "*Consultation History*" (Section 2.0 of your BA), include this letter in your BA as an appendix, and include this correspondence in your administrative files. See Appendix E for step-by-step instructions on how to use IPaC and for more information on this web site.

You can also contact your local USFWS/NMFS office for a list of federally listed species and critical habitat that may occur within your action area. This may be done directly through your local USFWS Ecological Services Field Office or NMFS website.

Determine whether your action area contains any critical habitat designated by USFWS/NMFS. Critical habitat is a legally defined area that has been identified by USFWS/NMFS for some species in an official rule-making process published in the *Federal Register*, which is similar to, but not entirely in the same manner species are listed. More information regarding critical habitat is provided later in this document. You can determine whether your action area contains designated critical habitat or it is nearby by checking the USFWS' IPaC website (see web address above). See Appendix E for information for assessing IPaC for critical habitat.

Review state, federal, NPS, and other data bases, files, records, etc. for species location information, habitat information, etc. to determine which species may or may not be present, or whether suitable habitat is present that could be affected by the proposed action. *Is there any designated/proposed critical habitat for any federally listed species? If so where and how much?* If not state that. Insert Exhibit 7 below into your BA.

Exhibit 7.

5.0 PRE-FIELD REVIEW

A list of federally listed and proposed species and designated/proposed critical habitat in the action area was obtained from the USFWS/NMFS' IPac website on DATE (XXXX) *(MAKE SURE LIST IS NO MORE THAN **90 DAYS OLD** BEFORE SUBMITTAL).* Using this list, we determined which of those species/critical habitat had a potential to occur within the action area (shown in Table X below). Species not known or with no potential of occurring in the action area are documented with rationale in Table X and will not be discussed further in this document. Excluded species have been dropped from further analysis by meeting one or more of the following conditions:

1. species does not occur, nor is expected to occur in the action area during the time activities would occur;
2. occurs in habitats that are not present; and/or
3. is outside of the geographical or elevational range of the species.

In addition, Table X below gives a very brief summary of federally listed/proposed species, designated critical habitat, species' habitat requirements, and known occurrence information of species that are known or may occur in the action area.

There is/no proposed or designated critical habitat for any federally listed species addressed in this assessment within the action area; therefore, there will be/no direct, indirect, or cumulative effects. Critical habitat will/not be addressed further in this assessment.

5.1 Species Considered and Evaluated

From the official USFWS/NMFS species list obtained from IPaC/local office (previous section), determine which species will be addressed in your analysis, and those species that will not (for whatever reason). Species excluded from further analysis must have clearly stated rationale as to why you are dismissing them from further analysis resulting in a "***no effect***" determination. Some typical reasons for exclusion of species include: the action area is located outside of the species' distributional range; outside their elevational range; no suitable habitat is present or it would not be affected; and species is not present when the action would take place. This information can most easily be depicted using a table showing each species identified by USFWS/NMFS, whether they are known or have the potential to be in the action area (suitable habitat is present), and whether they will be analyzed in the

*Species excluded from further analysis must have **rationale** presented in your document as to why you are dismissing them from further analysis.*

BA or not – if not, provide sufficient rationale. This table can be very useful in documenting what species and critical habitat will be analyzed further in the BA and provides a general habitat description. Insert Exhibit 8 below into your BA and edit as appropriate.

Exhibit 8.

Table X. Threatened, endangered, candidate/proposed species with the potential to occur within the action area and critical habitat. The USFWS/NMFS species list (USFWS 2013) was obtained on (DATE XX) and reviewed. Species/critical habitat not having the potential to occur were excluded from further review with a no effect determination with the below rationale.
[1] **Status Codes**: **E**=federally listed endangered; **T**=federally listed threatened; **P**= federally proposed for listing; **C**= federal candidate for listing; and **CH**=designated critical habitat. *(IF YOU ARE INCLUDING STATE OR LOCALLY LISTED SPECIES, INCLUDE CODE HERE AS WELL)*
[2] **Exclusion Rationale Codes**: **ODR**=outside known distributional range of the species; **HAB**= no habitat present in action area; **ELE**= outside of elevational range of species; and **SEA**=species not expected to occur during the season of use/impact.

Species Common and Scientific Name	Status[1]	Potential to Occur	Critical Habitat	Rationale for Exclusion[2]	Habitat Description and Range in the Action Area
INVERTEBRATES					
COMMON NAME *SCIENTIFIC NAME*	*E*	*No*	*No*	*HAB, ELE*	*known to only occur above timberline on Mt. XXX, laying eggs on snow willow (Salix nivalis); potentially occurring in XXX & XXX counties in XXX*
AMPHIBIANS AND REPTILES					
COMMON NAME *SCIENTIFIC NAME*	*C*	***YES***	*No*		*breeds in ponds & over winter in refugia within lodgepole pine, spruce-fir forests, & alpine meadows; 7,500-12,000 ft; XXX County has the only viable population in XXX*
BIRDS					
COMMON NAME *SCIENTIFIC NAME*	*T*	*No*	***YES***	*HAB*	*steep-sided canyons with old-growth mixed conifer forests, nesting on cliff ledges or caves along canyon walls in shady/cool canyons of the piñon/juniper zone in XXX*

((SUMMARIZE THE ABOVE TABLE) As indicated in the above table, there is one federally listed threatened or endangered, candidate/proposed species *(LIST THEM)* with the potential to occur (i.e., habitat is present) and one designated critical habitat within the action area. Therefore, only those species and critical habitat will be addressed hereafter in this assessment (evaluated species). The remaining species/critical habitat shown above without a potential to occur will not be analyzed further based on the rationale provided. The proposed action will have no effect on these other species or critical habitat.

6.0 Evaluated Species Information

6.1 Field reconnaissance

In this section, discuss species and habitat information that is known for the species you identified in the above table. Answer the following questions: *Have you visited the action site? Have you surveyed for species that are known to occur or have potential habitat in the proposed action area*? The "not known to occur here" approach is a common flaw in many BAs. The operative word here is "known." Unless adequate surveys have been conducted or adequate information sources have been referenced, this statement is difficult to interpret. It begs the questions…*Have you looked? If so, how have you looked – did you conduct species protocol surveys?* **If suitable habitat is present, and you have <u>not</u> conducted adequate surveys (using accepted protocols), then you must assume the species is present for your analysis.** Always reference your information sources. Include a clear description of your survey methods so that the reader can have confidence in your results.

*If habitat is present within your action area and adequate surveys (using accepted protocols) have not been done, then you must **assume the species <u>is</u> present** for your analysis until adequately surveyed.*

Address the following:

1. *Did you look for and assess whether suitable habitat is present within the action area?*
2. *Did you conduct surveys for each species? If so, how intensive were they and were they done in a manner to best determine their presence?*
3. *Did the survey cover the entire action area or only part of it?* Clearly state survey methodology used.
4. *Who did the surveys and when? Were the surveyors properly qualitied and trained?*
5. *Did the survey follow accepted protocols?*
6. *Were they done during the time of year/day when the plant is growing or when the animal can be found (its active period)?*
7. *Was habitat unsurveyed?* New surveys are not required under ESA according to court interpretations (Arizona Cattle growers Assoc. vs. USFWS 1998); direction requires us to use the best available information (e.g., the area may already have been adequate surveys in the area). However, site-specific surveys should be conducted if feasible. In their absence, **assume the species is present if habitat is present** and adequate surveys (using accepted protocols) have not been completed and analyze accordingly.
8. *Could the species present?* Remember that for most animals, surveys can only prove presence – not absence. Consider potential impacts to a species if its habitat is present and is within their range.

Conducting surveys for listed animals is considered **"take"** under ESA and requires a **section 10 permit** from the USFWS. **Before initiating surveys, contact your local USFWS office to obtain the necessary permits**. See Figure 7 below for the process of obtaining a permit. These permits are not required to conduct plant surveys; however, if plants will be collected or voucher specimens taken, contact your local USFWS office for further information and guidance.

6.2 Species Status and Biology

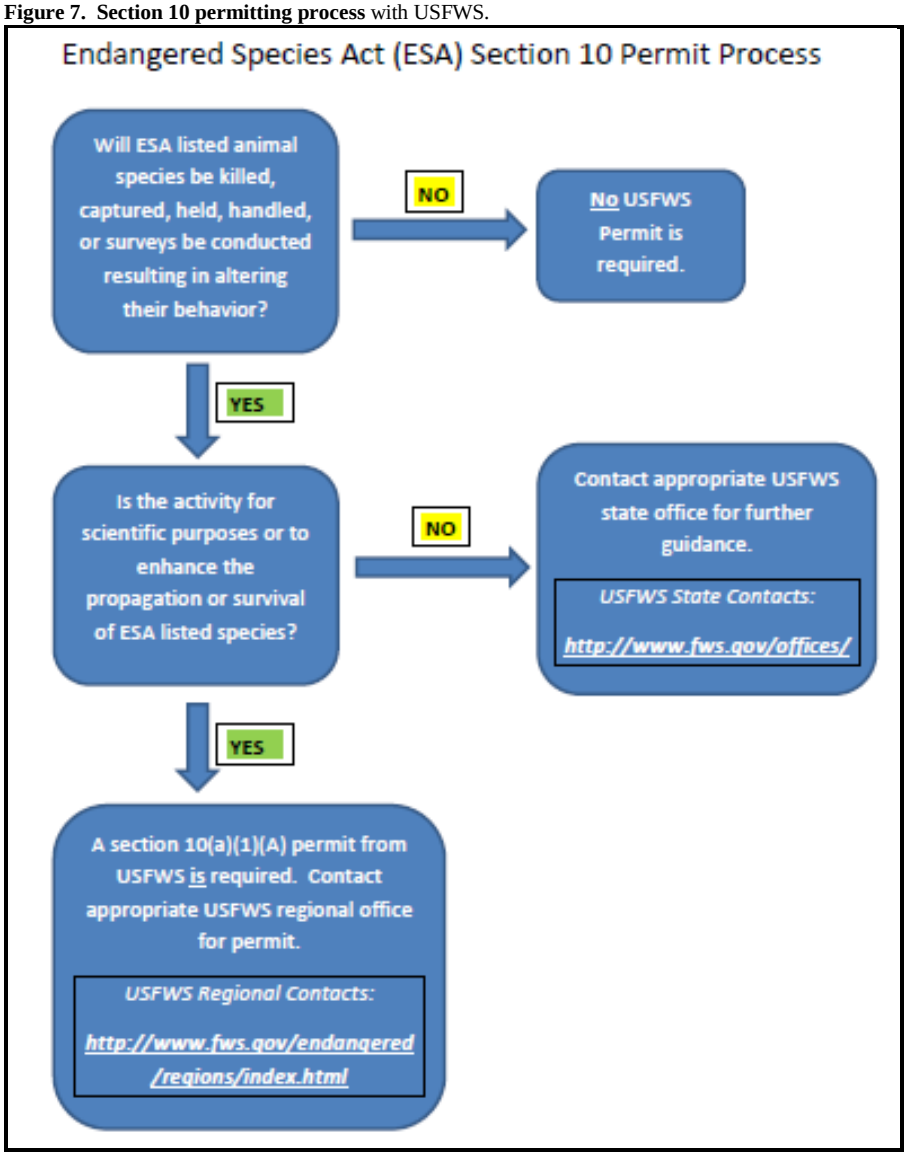
This is one of the **LEAST IMPORTANT** sections of your BA; however, in many BAs it is often one of the longest sections. The USFWS/NMFS knows the biology of the species; therefore, it is unnecessary to provide them with a lot of detailed information. Begin this section with a broader discussion at the species range and distribution scale. Include a **VERY BRIEF** overview of each species' range, status, life history, important behaviors, habitat requirements, limiting factors, and other information that is **relevant to the action area** and how each component of the proposed action might affect these species. Keep the information presented as brief as possible and reference other documents (e.g., recovery plans, species accounts, conservation plans, web sites, other documents, etc.) where possible. The intent of this section is to provide the reader with a basic understanding of the biology requirements of each species, their limiting factors affecting essential behaviors, and their distribution, and not a complete life history of the species.

Provide basic biology and limiting factors. USFWS/NMFS already knows the species' biology so detailed information is not needed.

Your document is an impact analysis of the proposed actions, not a species natural history dissertation.

The most important part of this section of your BA should include **what is known about the species' use** and **local status in the action area**. For example: *How abundant is the species or what is it's occurrence within the action area? What does it use the area for? What is the condition of its habitat? Are the primary constituent elements of critical habitat functioning?* These should be highlighted in this section. Later in your effects analysis, you will discuss how the proposed action might affect each of the species' essential behaviors, habitats, and limiting factors described in this section.

Figure 7. Section 10 permitting process with USFWS.



Climate change is something that will increasingly affect many T&E species in the future as they, and their habitats may be affected by changes in temperature, precipitation, seasonality of precipitation, intensity of storms, etc. These changes because of other actions unrelated to your management action are part of their current status and may act synergistically with other liming factors. Your discussion of climate change can occur either in *Species Status* (Section 6.2) or the following *Environmental Baseline* (Section 7.0), as it applies to many species you may be addressing. The important thing is that you address the effects of climate change to species and their habitats either in this section or *Environmental Baseline* (Section 7.0) below. The following are two different examples of effects from climate change discussions. The first example is somewhat generic that is applicable to many species you may be analyzing, and the second is a more specific discussion for individual species if more information is available.

EXAMPLE 1: GENERAL WRITE-UP FOR THE EFFECTS OF CLIMATE CHANGE ON SPECIES AND HABITAT

It has been well documented by numerous studies – the earth is warming. U.S. average temperatures have increased more than 2°F in the last 50 years, and are projected to increase further (USGCRP 2009). Significant increases in the amounts of carbon dioxide (CO^2), methane (CH^4), and nitrous oxide (N_2O) in the atmosphere are leading to an enhancement of the earth's natural greenhouse effect (Price and Root 2005). These increases in greenhouse gases can largely be attributed to human activities, including burning of fossil fuels and land use changes such as deforestation. There is evidence that earlier arrival dates, breeding dates, and changes in distribution of neotropical migrant birds, and the average latitude of occurrence of some species of North American birds has shifted northward by almost 60 miles in the last 20 years (Price and Root 2005). Numerous studies have shown shifts in density, which can be created by a change in abundance within the range of species, and/or a shift in range boundaries. Ultimately, the greatest impact on plants and wildlife may not be from the climate change itself, but rather from the rate of change. Given enough time, many species would likely be able to adapt to shifts in the climate, as they have done in the past. However, the current projected rate of warming is thought to be greater now than has occurred at any time in the last 10,000 years (IPCC 2007).

Fish, wildlife, plants, and the ecosystem processes they depend upon are threatened by a number of existing stressors. Many of these stressors will be exacerbated by climate change, while some may reduce a species' ability to adapt to changing conditions. While the magnitude of climate change is expected to vary regionally, the overall vulnerability of some ecosystems may be primarily driven by the severity of these non-climate stressors. We consider climate impacts in the context of multiple natural and human-induced changes that are already significantly affecting species, habitats, and ecosystem functions and services, including habitat loss, fragmentation and degradation, invasive species, over-use, and disease.

In addition to predicted increases in temperatures, precipitation will also likely change. On average, precipitation in the U.S. has increased approximately 5% in the last 50 years (USGCRP 2009). Models suggest northern (wet) areas of the U.S. will become wetter, while southern (dry) areas of the country will become drier (USGCRP 2009). In areas of high snowpack, runoff is beginning earlier in the spring, causing flows to be lower in the late summer. These changes in precipitation combined with increased temperatures are also expected to increase the instance and severity of drought, the conditions of which can lead to an increase in the frequency and intensity of fires. Adding changes in climate to habitat fragmentation will put species with narrow geographic ranges and specific habitat requirements at even greater risk than they would otherwise be. Range reductions and population declines from synergistic impacts of climate and non-climate stressors may be severe enough to threaten some species with extinction over all or significant portions of their ranges.

A changing climate can affect growth rates; alter patterns of food availability, and change rates and patterns of decomposition and nutrient cycling. Changes can be driven by one or multiple climate related factors acting in concert or synergistically and can alter the distribution, abundance, phenology, and behavior of species, and the diversity, structure, and function of ecosystems. One forecast that seems certain is that the more rapidly the climate changes, the higher the probability of substantial disruption and unexpected events within natural systems (Root and Schneider 1993). The possibility of major surprises, in turn, increases the need for adaptive management strategies—where actions and approaches are flexible enough to be adjusted in the face of changing conditions.

(CONTINUED ON THE NEXT PAGE)

EXAMPLE 1 (CONT.): GENERAL WRITE-UP FOR THE EFFECTS OF CLIMATE CHANGE ON SPECIES AND HABITAT

Species and populations likely to have greater sensitivities to climate change include those with highly specialized habitat requirements, those already near temperature limits or having other narrow environmental tolerances, currently isolated, or rare or those with declining populations and poor dispersal abilities, and groups especially sensitive to pathogens (Foden et al. 2008). Species with these traits will be even more vulnerable if they have a small population, a low reproductive rate, long generation times, low genetic diversity, or by other factors. Vegetation dynamics, disturbance, climate, and their interactions are key elements in predicting the future condition of ecosystems and landscapes and the vulnerability of species and populations to climatic change. Climatic factors such as temperature, precipitation, and wind patterns are among the many factors that influence vegetative structure and composition, fire behavior and wildlife habitat.

There is little scientific disagreement that global warming is occurring at an accelerating rate and that human activities (greenhouse gas emission increases, etc.) have contributed to this phenomenon. Some uncertainty exists as to the magnitude of these effects in relation to natural variation and the precise effects of how feedback mechanisms (increased water vapor, reduced snow cover) influence the extent and magnitude of global warming patterns and trends. More recently, the extensive Arctic Climate Impact Assessment (ACIA 2004) has provided compelling evidence that among numerous other effects (1) arctic climate is now warming more rapidly than the rest of the earth, (2) much larger changes are projected in the future and (3) arctic warming and its consequences have worldwide implications.

Other indirect effects of climate change may have beneficial or detrimental effects on many wildlife and plant species alike. For example, some lower-elevational and warmer-climate adapted species' range and distribution, currently limited due to climate/environmental conditions present at higher elevations, may expand their distributions to higher elevations in given geographical areas as well as expand their ranges northward, as more favorable climatic conditions are created by warmer climates in some areas. A recent study of the effect of climatic change on wildfire in the western U.S. (McKenzie et al. 2004) determined that with warming climate fire seasons will likely be extended and that total area burned is likely to increase. As a result, significant changes in the distribution and abundance of dominant plant species in some ecosystems may occur. Some species that are sensitive to fire may decline, whereas the distribution and abundance of species favored by fire may be enhanced.

In summary, there is incomplete or unavailable information upon which to base any more detailed analysis of climate change risk factors for plant and wildlife species addressed in this BA. The best available information does provide some evidence that climate change poses risks, but the exact nature of these risks remains uncertain.

EXAMPLE 2: WRITE-UP FOR THE EFFECTS OF CLIMATE CHANGE ON A SPECIES AND ITS HABITAT

Sonoran Pronghorn Example

The following are excerpts from the Sonoran pronghorn Recovery Plan (2015). Our analyses under the ESA include consideration of ongoing and projected changes in climate. Climate change as defined by the Intergovernmental Panel on Climate Change (IPCC) (2007) as the change in the mean or variability of one or more measures of climate (e.g., temperature or precipitation) that persists for an extended period, typically decades or longer, whether the change is due to natural variability, human activity, or both. Various types of changes in climate can have direct or indirect effects on species. These effects may be positive, neutral, or negative and they may change over time, depending on the species and other relevant considerations, such as the effects of interactions of climate with other variables (e.g., habitat fragmentation; IPCC 2007). Global climate change is a likely contributor to the stressors of increased frequency and severity of drought, low annual rainfall, and extreme heat such as reduced forage quality and reduced availability of water for the Sonoran pronghorn.

The most significant potential impact of global climate change on Sonoran pronghorn is its potential to increase the frequency and severity of drought. More dry days, warming temperatures, and increased evapotranspiration are expected to result in more severe drought (Gershunov 2013). Future droughts are expected to become more frequent and severe, with 100-year droughts common in the second half of this century (Gershunov 2013). Drought was the factor causing extreme mortality in 2002, drought is the most important predictor of survivorship and recruitment. Similarly, global climate change could cause annual rainfall to lessen. Precipitation is projected to drop by five percent by century's end (relative to average precipitation over the last three decades of the 20th century) for much of Arizona and New Mexico, based on results from 18 global climate models (Seager et al. 2007). A ten percent decline could occur over the southern half of Arizona based on these estimates (Seager et al. 2007). Winter storms could enter the western United States in a more northerly position, bypassing the Southwest more often than it currently does. Summer precipitation may also decrease, but is more difficult to predict (Lenart 2008).

Changes in the magnitude, frequency, or timing of precipitation and increases in temperature and atmospheric concentrations of carbon dioxide as a result of global climate change will likely affect soil organisms, vegetation composition, and ecosystem processes in Southwestern deserts (Fleishman and Lucas 2013). These changes would affect the quantity and species composition of forage available to Sonoran pronghorn. Highly variable precipitation can also affect forage quality because it would result in large fluctuations of nutrients in soils and plants (Fleishman and Lucas 2013).

The ability availability of current water developments to supply reliable water as the climate changes is unknown. Reductions in annual rainfall, coupled with hotter temperatures are likely to bring higher evaporation rates, much as they do during summer compared to winter. As a result, dry spells between rains can have more severe impacts on the landscape, especially in spring and summer (Lenart 2008). It is likely that some smaller existing water sources may dry out in spring and summer. While the region is expected to dry out, it paradoxically is likely to see larger, more destructive flooding. Because warm air holds more water vapor than cooler air, climate models project a future increase in atmospheric water vapor along with the increase in global temperature (Lenart 2008, Garfin 2013). This creates conditions that potentially could lead to bigger and more frequent floods by causing more intense, heavy rainfall events (Lenart 2008). Intense rainfall events are more likely to carry rainwater quickly away from the area in intense floods, with less water reaching the aquifers or remaining as semi-permanent water.

7.0 ENVIRONMENTAL BASELINE

This section is optional, but is strongly suggested to assist the USFWS/NMFS in their review of the status of the species and past/ongoing impacts that have occurred within the action area. It will provide them with the information they need to write their BO. Including this section will facilitate a **quicker and more expeditious section 7 consultation process**.

*Only include **past** or **current activities** within your **action area** as defined above in the environmental baseline section.*

The bounds of your discussion of the environmental baseline is at the action area scale, as you defined it above in Section 4.0 of the BA. This section consists of an analysis of the effects of all **past** and **ongoing human and natural factors** to species, their habitats, and designated critical habitat before you consider the additive impact of your proposed action in the next section of your BA. This provides a fixed "**starting point"** or **"snapshot" of a species' current condition**, before you include the effects of the action under review in your analysis. How far back you go back in time is up to your discretion. We suggest that you include the activities and their effects that have shaped the species' presence, distribution, and abundance and their habitat (e.g., amount of habitat, distribution, quality, etc.) and focus on the species' limiting factors.

The environmental baseline is an important aspect of your assessment as it **sets the stage** for your assessment. List activities that are considered in the environmental baseline (note: do not include future federal or non-federal actions). Describe existing conditions, including the estimated amount and distribution of habitat on federal and other ownerships. The information required here includes federal, state, local, and private actions already affecting the species (past and ongoing), or those actions that will occur at the same time as the proposed action. If you think it is more appropriate, you can address the effects of climate change in this section, as well, referring to the above examples provided.

*Describe the **existing condition** – what are the **effects of past and ongoing** human and natural factors that pertain to the project you are addressing **BEFORE** you consider the additive impact of your proposed action.*

Insert Exhibit 9 below into your BA.

Exhibit 9.

7.0 ENVIRONMENTAL BASELINE

As defined under the ESA, the environmental baseline includes past and present activities and their impacts of all federal, state, and private actions in the action area; the anticipated impacts of all proposed federal actions in the action area that have already undergone formal or early section 7 consultation; and the impact of state and private actions which are contemporaneous with the section 7 consultation process. Future actions and their potential effects are not included in the environmental baseline. This section in combination with the previous section defines the current status of the species and its habitat in the action area and provides a platform to assess the effects of the proposed action under consultation with the USFWS/NMFS.

7.1 Previous Consultations with the USFWS Within the Action Area

Include all past completed section 7 consultations that have previously occurred within your previously identified action area **for this action**. The best way to display this may be in a table format (Exhibit 9).

In this section consider including the following:

- name of the project/action;
- park unit where it occurred;
- type of action taken;
- species addressed in that action;
- ESA effect determination in the BA/BO; and
- date of the completed consultation with USFWS/NMFS.

This information can best be provided in a table format as shown in Exhibit 10 below.

Exhibit 10.

Table X. Past consultations with the USFWS/NMFS and determinations for actions within the action area for all federally listed/proposed species and designated/proposed critical habitat.
[1] **ESA determinations**: **NE** = No effect, **NLAA** = May affect, not likely to adversely affect, **BE** = Beneficial Effect, and **LAA** = May affect, not likely to adversely affect.

Project	Park Unit	Type of Project	Species Addressed	Determination[1]	Date
Big Tree Visitor Center	SOPA	Facilities improvement	Lynx	NE	1999
Big Tree Trail	SOPA	Recreation	Lynx Uncompahgre Frit. Butterfly	NLAA NE	2005

7.2 Past and Current Activities within the Action Area

Do NOT include future federal actions for which consultation has not yet been completed in the Environmental Baseline section of the BA.

Specifically disclose all previous and ongoing activities (e.g., roads, trails, campgrounds, recreation activities, prescribed burning, climate change, etc.) that have/are currently occurring within your action area that is relevant to the species you are addressing. Be sure not only to list these activities/stressors, but more importantly, ***what the effects of each of these activities been to these species and their habitats?*** They should include the entire action area which is often times larger than the project site or park itself. See Figure 6 above.

The following is an example discussion of the environmental baseline within an action area. In this section, you are setting the stage by describing the current condition within the action area for these species and their habitats, and will later include the additive effects of your proposed action in the following section.

EXAMPLE OF AN ENVIRONMENTAL BASELINE WRITE-UP

Profound changes to the ecosystems conditions have occurred within the action area over the past 150 years that can be attributed to both direct and indirect human impacts. Much of these occurred prior to the establishment of the XXXX National Park; however, others continue today. Veblen et al. (2000) in assessing the historic range of variability of the action area and gave the following overview of past activities and their impacts.

Prior to establishment of the Park, during the early settlement period (c. 1860-1910) extensive and unregulated timber harvest, increased fire ignitions from mining and other settlement activities, and intensive livestock grazing affected most of this area. Native Americans had much less intensive and extensive impacts on the landscape. Although their influences on fire and game populations may have been ecologically significant, the magnitudes of these impacts were less than the changes wrought during the Euro-American settlement period. The impacts associated with Euro-American settlement created lasting legacies in the landscape including changes in forest structures and for some cover types that are clearly outside the range of historic variability. This is most evident in the montane zone where old (> c. 150 years) ponderosa pine and Douglas-fir forests have been nearly entirely replaced by younger stands or non-forest cover types within the action area.

Outside of the Park, during the latter half of the 20th century, landscape scale patterns have been further altered by logging, road construction, active fire suppression, and human developments such as utility transmission corridors, rural housing developments, etc. Logging and road construction have altered forest conditions so that they are probably outside the range of historic variability in terms of abundance of sharp edges and edge effects, smaller patch sizes [increased forest fragmentation], increased homogeneity of tree sizes and ages, reduced abundance of stands older than c. 150 years, and generally more abundant younger trees. In the montane zone, fire exclusion has had a demonstrable impact on stand and landscape structure, especially in the ponderosa pine cover type. Exclusion of surface fires from montane forests has been both intentional, because of active fire suppression, and indirect, because of fuel reduction and fragmentation by grazing, roads, logging, and other features that cause landscape fragmentation. In the sub alpine zone, the ecological consequences of modern fire suppression policy have been dramatically less. These impacts have had less influence in the Park since its establishment in XXX; however, the effects from earlier management are still evident within the Park today.

In addition to the above changes in vegetation and wildlife habitats, there have also been impacts from past and ongoing recreation uses within the Park such as hiking, horseback riding, camping, automobile touring, etc. These activities and their effects to species and their habitats are particularly relevant and important in the Park where increased human developments such as the XXX visitor center, XXX road, XXX campground and picnic areas, etc. have all impacted each of these species directly and indirectly, both in the short and long-term.

Each of these activities have directly affected the species addressed in this assessment directly and indirectly by habitat alteration such as removal and degradation of nesting/denning, foraging, and sheltering habitats, negatively affecting movement corridors, increased fragmentation, increased noise and other human disturbances which has displaced animals causing increased stress, mortality, and negatively affected reproduction. Thus, the distribution and abundance of populations has been negatively affected within the action area both in and outside the Park.

8.0 EFFECTS TO EVALUATED SPECIES AND DETERMINATIONS

THIS IS WHAT YOUR ASSESSMENT IS ALL ABOUT
THE MOST IMPORTANT SECTION OF YOUR DOCUMENT

THIS SHOULD BE ONE OF THE LONGER SECTIONS OF YOUR BA, HAVING A THOROUGH ANALYSIS WITH DETAILED DISCUSSION TO SUPPORT YOUR EFFECT DETERMINATIONS

If your document includes federally listed and state or locally listed species, be sure to separate your discussion of federal and non-federal species into different sections. USFWS/NMFS only needs to review federally listed/proposed species and critical habitat, not other species such as state locally listed species, or species of concern. Federally listed species should be discussed separately in this section. State or locally listed species may be discussed here as well; however, they should be either placed into a separate section, individually or grouped together as appropriate if they have similar habitats or effects. Insert the below section headers in your BA.

8.1 Federally Listed Species

Separate federally listed species according to taxa (e.g., under headings such as "**WILDLIFE"**, "**FISH"**, and "**PLANTS"**). For each species, discuss the direct, indirect, and cumulative effects, whether there will be any anticipated incidental take, and your effect determination.

DIRECT AND INDIRECT EFFECTS

Effects are to be assessed at the individual species level – not population level. It is **NOT** essential to distinguish between direct and indirect effects in your BA. It **IS** important however, to describe a reasonable connection between the action and any effect (direct and indirect). For each species discuss both direct and indirect effects to stressors (see examples below).

- **Direct effects** are those caused by the action and occur at the same time and place as the action.
- **Indirect effects** are caused by the action and occur at a later time and/or place and are reasonably certain to occur.

EXAMPLES

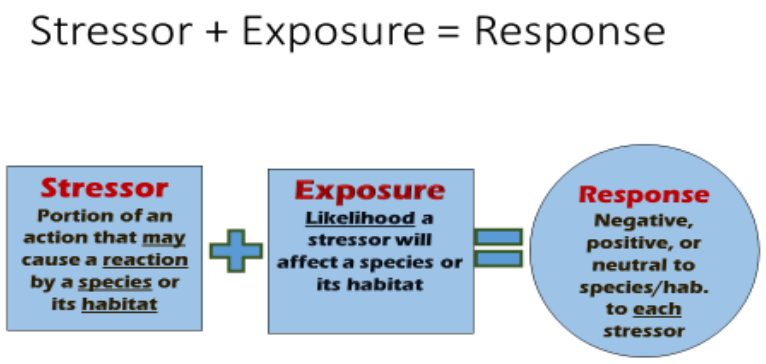
*Some examples of **direct effects** include the effects from stressors such as ground disturbance, vegetation removal, noise, light, smoke, dust, visual harassment, etc. associated with implementation of the project or action such as the construction or associated activities of the actual building of a facility, road, trail, parking lot, etc.*

EXAMPLES

*Some examples of **indirect effects** include those that are reasonably certain to occur effects that occur after implementation such as construction activities cease (the subsequence use of these facilities) – such as human activities (visitation) – including noise, visual harassment, introduction of pets/noxious weeds, pollution, change in species competition, introduction of predators, etc. that occurs at a later place and time.*

MOST IMPORTANTLY: *What is the **exposure** to direct and indirect effects (**stressors**) of the proposed management action to each species/habitat and what are the **responses** of these species and their habitats to these stressors?* Not only list these stressors, but also answer the "**SO WHAT QUESTION**" ***What will the responses of individuals be to each stressor?*** Figure 8 shows the relationship between exposure, stressors, and response.

Figure 8. Exposure added to stressors determine the response of species and habitats.



*What are the effects to **species** and their **habitats**? Consider **effects to essential behaviors** such as **feeding, breeding, sheltering, migration,** and **movement** and the **habitats** that support them.*

Identify the anticipated effects (beneficial and adverse) of the proposed action on each **species** and their **habitats**. Consider project-related **effects to important behaviors** such as **feeding, breeding, sheltering, migration, or movement** and **habitats** that support these behaviors in your analysis. For each species addressed, discuss the following

*It is not sufficient to simply disclose what activities might occur, but also… **What will be the effects to each species?** How will these species **respond** to these activities/stressors?*

EXPOSURE ANALYSIS should include the following: ***Will there be exposure? What is the exposure? Where is the exposure? When is the exposure? How long is the exposure? What is the frequency of the exposure? What is the intensity of the exposure? How many individuals will be exposed?*** etc…

- *What is the **proximity** of the action to species' locations and habitats?*
- *What **time of year** will the action occur related to critical periods (e.g., reproduction, wintering, etc.)?*
- *What **habitats** will be affected?*
- *What is the **species distribution** – where does it occur in your action area?*
- *What is the **duration** of the effects (include direct effects and indirect effects) of the proposed action on affected species (i.e., short-term, long-term, or permanent)?*
- *What is the **probability** of these effects happening?*

RESPONSE ANALYSIS

- *What is the **species response** **to these effects**?*
- *What is the **likelihood of a response** to these stressors for any given species?*
- *Are the effects **short-term** (define time period) **long-term** (define time period?) or both? What are they and how important is this?*
- *What is the disturbance **frequency** of the event or action (i.e., how often the effect will occur)?*
- *What is the disturbance **intensity** (i.e., how much of the habitat [by type] will be affected)?*
- *What is the **severity** (i.e., how long will habitat take to recover)?*
- *What is the **nature of the effects** on the species' lifecycle, population size, variability, or distribution?*
- *What part of the **population** will be affected by this action?*
- *What is the **relative importance** of the action area to the species addressed?*

Provide a clearly **documented path of what you considered** in your analysis and how you arrived at your determination below – articulate your thought process to support your effect determination. Assess the degree of biological risk, which is the interplay between the nature of the action's activities with the characteristics of species and individuals using the area or affected by the action in some way.

*Document your **conclusion** and supporting **rationale** – your analysis of the **what, when, and how** the species will be exposed and **how individuals or habitat are likely to respond to this exposure.** Consider effects that may occur **later in time.***

- Limit your effect discussion by connecting the action activities that matter to each species (e.g., habitat modification, disturbance, etc.) to the potential effects on the limiting factors of those species (as you previously discussed in your BA in Section 6.2 – *Species Status and Biology*).
- Clearly and succinctly tie your discussion to your determinations of effect – **support your effect determination with rationale!**
- Ensure the depth of analysis and information presented among species analyzed is commensurate with the level of concern for a species or its relative importance of the action area.
- If conservation measures/mitigation avoids or minimizes impacts, your discussion of effects must reflect this.
- Determine if there is a higher level of biological risk due to greater scientific or action uncertainty, resulting in greater depth of information and analysis.

*The depth of analysis and information presented should be **commensurate with the level of concern** for a species / critical habitat or its relative importance within the action area.*

See Figures 10 and 11 below for a relative scale of severity and responses for animals and plants.

Figure 10. Animal responses examples with increasing severity (courtesy of Doug Laye USFWS).

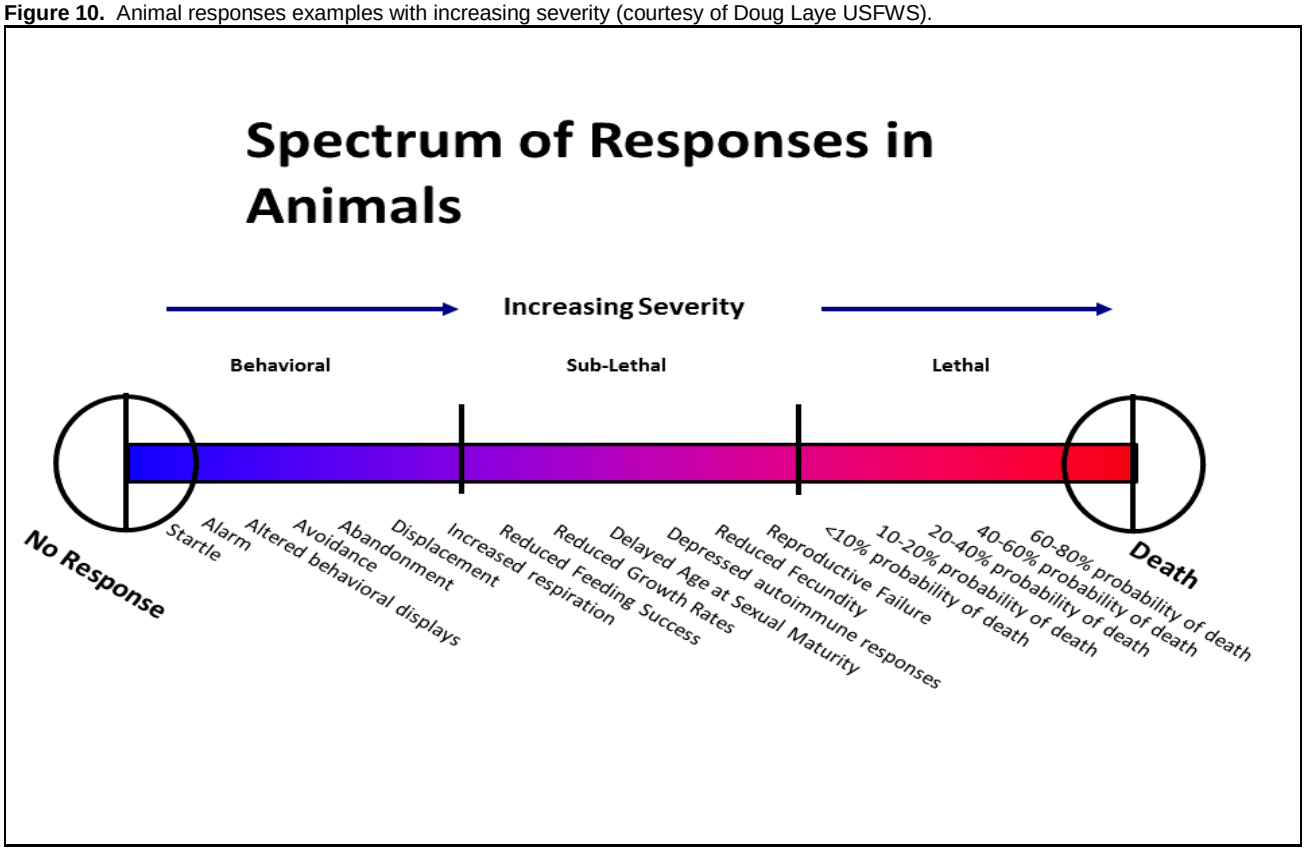
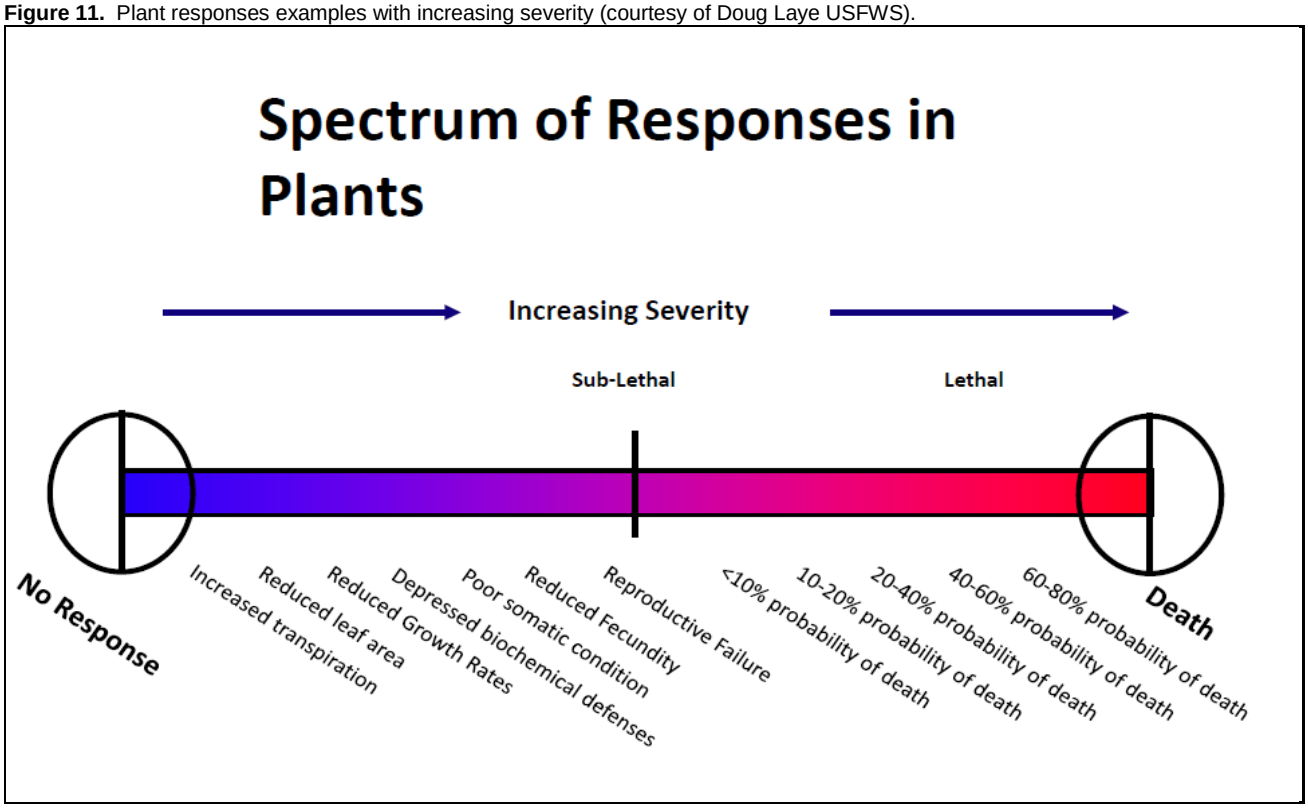


Figure 11. Plant responses examples with increasing severity (courtesy of Doug Laye USFWS).



The degree of administrative and/or legal risk may also indicate a need of additional information and more detailed analysis in the BA depending on whether the action will likely be taken through the section 7 consultation process or has a higher level of public interest. This can be an important driver for the level of analysis and documentation needed for your BA and NEPA documents.

Make the connections – Tell the Story!

*Focus your analysis on the **limiting factors** for each species that will be influenced by the proposed action.*

*Consult with **species experts** and the **USFWS/NMFS** for their input, but you (the action agency) is **solely responsible** for the analysis of effects and will ultimately **make the effect determination.***

Provide relevant reports (if available)

- Describe measures taken to avoid, reduce, or eliminate adverse effects or enhance beneficial effects to the species. Refer to contacts and conversations you had with species experts to achieve these results.
- Consider recovery potential if the action area contains historic range for a species.
- Evaluate designated or proposed critical habitat (if applicable) by reviewing the physical or biological features essential to the conservation of the species.
- List the species experts you contacted when preparing the BA, but avoid statements that place the responsibility for the decision of "***may affect***" or "***no effect***" on their shoulders. For example, avoid the following kind of statement: "*I contacted Janice Smith, a biologist, who said the proposed management action would not affect this endangered species*." Remember, this decision is made by the federal action agency (NPS), which is accountable for its actions. The action agency ultimately is responsible for making the effect determination – not the USFWS/NMFS or others. We can however, confer with others to assist us in making our effect determination and its supporting rationale.

Common pitfalls to avoid in a BA:

1. **The effects of the overall action are <u>not</u> broken down into individual components**. Include a description of **all** of the associated activities, as well as how a species would respond to these activities. For example, a vegetation treatment among other things, may include cutting of trees (impact) to construct a parking lot or road converts the habitat to an unsuitable condition (other impacts). *What are the corresponding effects to a particular species, and importantly how will it respond to these changes in habitat within the action area directly and indirectly?* Each component may have their own direct and indirect effects which should be discussed individually. For example, road building requires equipment and people that can have direct and indirect effects, the loss of habitat also can have different effects, as will trucks on the roads have their own effects. Each of these activities or components may impact species differently or similarly and need to be discussed individually. This is often lacking in BAs.

2. **Not discussing the species response to the proposed action and its components. *ANSWER THE "SO WHAT QUESTION"!*** Discuss how the exposure of each stressor (impact) might affect each species or their habitat. Often an activity or impact is simply stated with little or no discussion as to what the <u>species' response to that activity or action might be to stressors</u>. For example, there could be noise associated with a particular action you are analyzing. It is important to discuss how this noise might affect breeding, foraging, wintering, movement, or other essential behaviors of a species, and how important or relevant these responses of individuals will be.

3. **Not quantifying the amount of change or impacts to habitats.** You can use a table to reflect changes in habitat distribution and illustrate the amount and relative scope of impact (shown in Exhibit 10). This allows you to show the amount of species' habitat(s) currently present and how much will be affected by the action considered. This can be very helpful in justifying your determination in relation to size and scope for example. Many BAs also lack specific information about the type or amount of habitat affected. A table can also be useful in providing this information by habitat type (e.g., denning, forage, other) and help you display effects to important animal behaviors and life history requirements. Insert Exhibit 11 below into your BA if appropriate.

Exhibit 11.

Table X. Species X habitats within the action area and percent of total.

Species X Habitat	Acres of Habitat within the Action Area	Percent of Habitat within the Action Area
Forage	10,500	58
Denning	7,300	41
Other	150	1
Unsuitable	4,100	-
Total habitat	17,950	-

Table X. Amount of habitat affected by the proposed action within the analysis area and percent of total.

Species X habitat	Acres Affected by No Action - Alt A (% change)	Acres Affected by Proposed Action - Alt B (% change)	Acres Affected by Alt C (% change)
Forage	0	450 (4%)	700 (7%)
Denning	0	0 (0%)	45 (1%)
Other	0	50 (33%)	100 (66%)
Unsuitable	0	1500 (37%)	1750 (43%)
Total habitat	0	500 (3%)	845 (5%)

** reflects the proposed action*

4. **Failing to fully document what you considered in your analysis (all of the potential effects) and how you arrived at your determination, or your <u>thought process</u> of what you considered in making your final effect determination.** Your BA must present a **<u>clear line of reasoning</u>** that documents your consideration of all potential effects the action(s) might have on the species and their habitat. It is essential that you provide the reader with your line of logic that supports how you arrived at your final effect determination. Remember, we are often writing for non-biologists and we cannot take for granted that the reader has the knowledge or understanding to fill in the blanks. If you do not fully disclose or clearly articulate your thought process in your document, then the reader will be left to figure that out, not knowing what you did or did not consider in your analysis, and make assumptions. If we think about a potential effect, we need to document that so the reader has the benefit of reading exactly what we considered in our analysis - otherwise it is incomplete. If we do not fully discuss and document our rationale and thought process in our assessment, then our conclusions (effect determinations) may be challenged by others and ruled "***arbitrary and capricious***" by the courts.

*You must be able to clearly show your **reasoning and rationale** to fully support your determination in a logical manner.*

CONNECT THE DOTS!

Frequently, effect determinations are not necessarily wrong; they simply are <u>not justified</u> or supported in the BA.

- Frequently, **effect determinations are <u>not</u> necessarily wrong; they simply are <u>not justified</u> and the rationale is not clearly articulated.** The BA should lead the reviewer through a discussion of effects to a logical, well-supported conclusion of effect.
- If you believe the action will not affect the species, <u>explain why.</u> This is important to clearly and fully explain your reasoning (rationale) for this determination.

5. **Including a laundry list of possible effects.** If you open a door by discussing s type of effect that is reported in the literature, you should close that door with a conclusion as to its applicability and severity in the action area. Not doing so will leave the reader wonder as to why you mentioned it without analyzing it further and will decrease the creditability in your effect determination.

6. **Common approaches that should not be used** in your effect analysis:

- The "**Displacement Approach.**" This relates to the argument that removal of habitat or disturbance of individuals is "***may affect, not likely to adversely affect***" or a "***no effect***" because individuals can simply go elsewhere. Except for wide-ranging species such as grizzly bears, gray wolves, etc. that have very large areas of unoccupied habitats nearby, or species that are not territorial, this argument is unacceptable for most species. When used, rationale must be provided to indicate that there is adequate unoccupied refugia available for other individuals to move to, or that "packing effects" of territorial species in adjacent areas will not occur. In any case, a "***no effect***" determination in these situations is usually inappropriate. The species may be affected, depending on the situation, but perhaps not adversely.
- The "**Not Known to Occur Here Approach.**" The operative word here is *known*. Unless adequate surveys have been conducted or adequate information sources have been referenced, this statement is difficult to interpret. It begs the following questions: *Have you looked? If so, how have you looked?* Always reference your information sources (see Section 6.0 above). A walk-through field reconnaissance through the area not using accepted survey protocols is generally not acceptable. The timing of surveys is also very important. Consider the life history of the species when scheduling surveys. For example, many plants are only identifiable while flowering. If surveys are done at the wrong time of the year they will not provide accurate information.

- The "**Leap of Faith approach.**" Often times the reviewing USFWS/NMFS biologist is unfamiliar with the action area or the action proposed. They have to rely solely on that information provided in your BA. Sometimes there is little or no connection or rationale provided in the BA to lead the reader from the action description to your effect determination. They cannot assume conditions that are not presented in the assessment. This is a very common missing link! Connect the dots and lead the reader through your analysis to your conclusion (effect determination).
- The "**Because I Said So Approach.**" This argument provides no rationale, support, or justification of how you arrived at your determination. If you do not document what you considered in your report, then the reader does not have the benefit of knowing what you considered. This fails to justify and support your determination.

7. Failing to look at **long-term** effects in addition to **short-term** effects. For example, we should not only assess the effects of building a parking lot or road (short-term construction effects to species use, behavior, and habitats), but also consider what the long-term effects (from increased or new uses of visitors and administrative uses) and how they might affect species use, behavior patterns, habitat use, quality, effectiveness, etc. Be sure to **define these terms in time** (e.g., hours, days, months, years, etc.).
8. **Analyses of cumulative effects are often the most lacking and poorly addressed.** We often do not disclose or address all activities that are related to the proposed action and their effects to the species and

habitats we are analyzing. For example, think of what ongoing recreational activities, human activities, or developments such as roads, housing developments, vegetation treatments, and others that may be occurring on private or other ownerships. Other potential impacts from invasive or noxious weeds, climate change, etc. could also be affecting the species addressed. Discuss the impacts of these activities to the species addressed.

9. **Failing to disclose and analyze interdependent and interrelated actions and their effects** to species addressed (see the below discussion).

Cumulative Effects

What are the cumulative effects within the action area? Cumulative effects are defined **differently** under ESA and NEPA – which is often a source of confusion[5]. Under ESA, cumulative effects are the additive effect of "***reasonably certain to occur***" **future** state, private and tribal activities. Therefore, cumulative effects involve **only future non-federal actions**.

Indicators of actions reasonably certain (or likely) to occur may include (but are not limited to): approval of the action by state, tribal, or local agencies or governments (e.g., permits, grants, etc. that have been granted); indications by state, tribal, or local agencies or governments that granting authority for those actions are imminent; assurance from the action's sponsors that the action will proceed; obligation of venture capital; or initiation of contacts. At the same time, reasonably certain to occur does not require a guarantee that action will occur. Thus, future federal actions that do not have a federal nexus[6] are part of the cumulative effects analysis for ESA.

*For ESA cumulative effects, do **NOT** consider **FUTURE** federal actions –only future non-federal actions that are "**reasonably certain to occur," NOT** past or ongoing federal actions. Those are part of the environmental baseline already addressed above in your BA.*

Another difference between the ESA and NEPA cumulative effects definition is that under ESA past and present impacts of all (federal and non-federal) actions are part of the environmental baseline that was previously discussed in the *Environmental Baseline Section 7.0* of your BA and are NOT included here for ESA cumulative effects analysis. However, often many of these same activities discussed in the environmental baseline section of the BA may also continue into the future. If there are non-federal actions that are reasonably certain to occur in the future, they will need to be discussed here and the effects to species/habitats are cumulative effects.

Cumulative effects under NEPA are similar, but not identical to those described for ESA above with two important exceptions. Both are NOT included under ESA. Under NEPA cumulative effects also include the effects from 1) reasonably foreseeable **future federal actions** and 2) **past actions and their effects** are also included in cumulative effects as well under NEPA. **Do not use the NEPA definition for cumulative effects in the BA, instead use the ESA definition**. If you are combining the BA into a NEPA document, you may want to separate your discussion for each ESA and NEPA definition. Remember we still need to address future federal actions reasonable certain to occur for species under NEPA in our CE/EA/EIS for all species – but not in a stand-alone BA or an embedded BA within your NEPA document. The follow is an example of cumulative effect discussions for a BA using the ESA definition.

[5] **Cumulative effects** are defined differently under NEPA and ESA: **NEPA definition** 40 CFR §1508.7 defines them as all past, present, proposed, and reasonably foreseeable future actions (including future federal actions that are expected to occur). **ESA definition** (50 CFR §402.02) defines them as effects of (unrelated) future state or private activities, NOT involving federal activities, that are reasonably certain to occur (i.e., likely to occur, considering economic, administrative, or legal hurdles which remain, but not necessarily guaranteed) within the action area.

[6] A **federal nexus** is defined as an action that is funded, authorized, or carried out by a federal agency.

EXAMPLES OF CUMULATIVE EFFECTS WRITE-UP USING ESA DEFINITION

Recreation—*Adjacent to the park (in the action area) motorized touring (e.g., automobiles, four-wheeled drive vehicles, OHVs, snowmobiles, etc.) by the public is expected to increase in the future. Of particular concern, is the unrestricted increase use of snowmobiles that are only limited by their machines, terrain, and snow conditions. Public use during the winter will be widespread (depending on snow condition) and their use will not be regulated or restricted to designated snow compaction routes. This will increase in orders of magnitude the impacts from snow compaction, noise disturbance, harassment of animals, and numerous other adverse effects to wildlife species and habitat from these, and other recreation activities. For example, on a typical winter weekend, use is expected to increase to 125 to over 200 individuals in five years. In addition, other impacts from high levels of non-motorized recreation (e.g., mountain biking, hiking, cross-country skiing/snow shoeing, camping, mountain climbing, fishing, hunting, and horseback riding) are all expected to continue to occur and increase in the future within the action area that will impact wildlife species and habitats. Recreational use will be high at all times of the year depending on activity and location. Each of these activities will likely incrementally impact wildlife species directly, indirectly, and cumulatively through habitat loss, fragmentation, and loss of effectiveness through short and long-term human disturbance.*

Roads—*Numerous reasonably certain to occur activities outside of the action area on state and private lands will require the continued use, or construction of new roads and trails. Roads in particular often increase soil erosion, increase sedimentation, fragment, and directly remove habitat, and facilitate the spread of invasive and noxious weeds. They can also cause mortality of wildlife which is particularly important for some species. Motorized and non-motorized recreational use (including OHV use, mountain biking, hiking, hunting, and fishing) can lead to the development of many non-system roads and trails, development of dispersed campsites, erosion, disturbance to wildlife species, and the vectoring of invasive and noxious weeds. The spread of noxious weeds can lead to changes in species composition, increase competition with native plant species, and alter fire regimes which can adversely affect many plant and wildlife species. Increased human activity can also adversely affect adjacent habitats directly and indirectly and reduce its effectiveness for many wildlife species. Each of these activities will likely incrementally impact wildlife species directly, indirectly, and cumulatively through habitat loss, fragmentation, and loss of effectiveness through short and long-term human disturbance.*

Timber harvesting and fuels reduction—*Timber harvesting outside of the Park on state and private lands will continue to change forest composition and structure of habitat. Timber harvest and thinning activities will result in a more open canopy with additional light reaching the forest floor (which may be beneficial or detrimental depending on the species), soil disturbance and compaction, development of skid roads, and noxious weed invasion in some areas. Many timber sale/hazardous fuel treatments are expected on non-federal lands in the future to address hazardous fuel loading and the risk of wildland fires in urban interface areas in the future. These activities will change the composition and structure of habitats in these areas. The intent of these treatments is to reduce the risk of catastrophic or intense canopy fires that ultimately might destroy or alter habitats for some wildlife species addressed in this assessment. These treatments will impact wildlife species directly, indirectly, and cumulatively both positively by reducing the threat of stand-replacement fires and protecting habitats and negatively through habitat loss, fragmentation, and loss of effectiveness.*

Human development— *The construction of human facilities and developments such as roads, trails, pipelines, powerlines, and other linear developments fragment and isolate habitats (Baldwin et al. 2004, Deng and Zheng 2004). In addition to the loss of habitats, these disturbances cause response behaviors with negative social or physiological consequences (Van Dyke et al. 1986). These activities cause a disruption of breeding or rearing activities, for example, it can reduce fecundity and recruitment (White and Thurow et al. 1985). Nutritional or hormonal costs of avoiding or responding to these disturbances may have cumulative and important implications for individual fitness and population productivity (MacArthur et al. 1979, Fowler 1999). More directly, human access from these activities can increase mortality through nonmotorized and controlled hunting, vehicle collisions, or the removal or destruction of problem animals (Johnson and Todd 1977). In addition, housing units and human developments within wildland/urban interface areas immediately adjacent to the Park increase the risk of potential wildfires that will also impact habitat for these species. Each of the above activities will incrementally impact wildlife species directly, indirectly, and cumulatively through habitat loss, fragmentation, and loss of effectiveness through short and long-term human disturbance.*

Insert Exhibit 12 below into your BA.

Exhibit 12.

Cumulative Effects *(CAN BE ADDRESSED BY TAXON, INDIVIDUAL SPECIES, GUILDS, LUMPED OR SEPARATELY – HOWEVER YOU CHOOSE)*

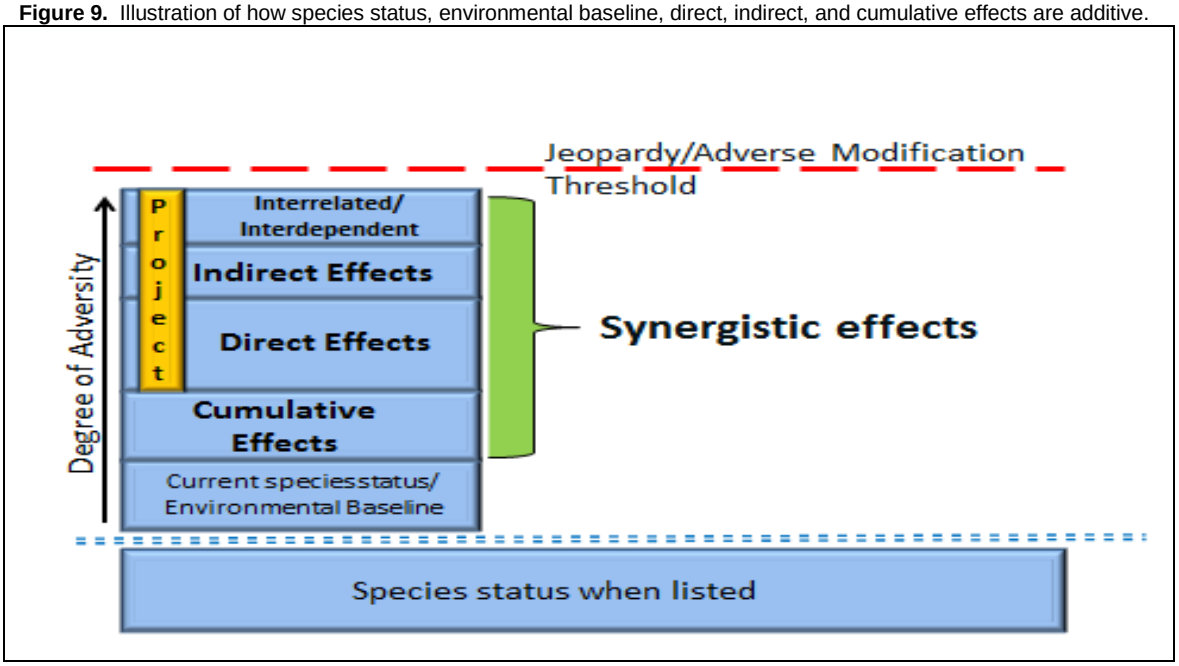
Cumulative effects are defined differently under ESA and NEPA. Under ESA, cumulative effects are reasonably foreseeable future state, private and tribal activities only. For ESA cumulative effects, we do not consider the effects of past or future federal actions. ESA cumulative effects are additive to the environmental baseline (past and ongoing actions and their effects) we described above in Section 7.0 of this BA. Conversely, under NEPA, cumulative effects include all past and ongoing actions and their effects that are additive to the effects from all reasonably foreseeable future actions (federal and non-federal) as well. For ESA consultation purposes in this BA, we are using the ESA definition of cumulative effects.

Below is a summary of future non-federal (private, state, or tribal only) activities that are reasonably likely to occur within the action area that directly and indirectly affect species/critical habitat addressed in this assessment. These effects are added to the environmental baseline (discussed above). *IN MANY INSTANCES, THESE PAST ACTIVITIES AND THEIR EFFECTS REMAIN TO THIS DAY AND ARE CURRENTLY ONGOING. LIST EACH ACTIVITY AND DESCRIBE THE EFFECTS TO EACH SPECIES ADDRESSED.*

Additive Effects

Evidence increasingly indicates that the most devastating environmental effects are likely not the direct effects of a particular action, but the combination of individually minor effects of multiple actions over time (CEQ 1997). Consider each of these impacts (direct, indirect, and cumulative) of the proposed action and that of interdependent and interrelated activities that are associated with this action, each are added to the species' status and the environmental baseline as shown in Figure 9. Consider these additive effects of the proposed management action that are added to the environmental baseline for our effect determination – as if they were "layers of a multi-tiered cake". USFWS/NMFS will determine if these additive effects will ultimately cross the "***jeopardy***" or "***destruction or adverse modification of critical habitat***" thresholds in their BO determinations at the population or subpopulation level for each species and critical habitat in its entirety or unit level.

Figure 9. Illustration of how species status, environmental baseline, direct, indirect, and cumulative effects are additive.



Interrelated and Interdependent Actions and Their Effects

Under ESA, we must also consider the effects of our actions together with the effects of other actions that are interrelated to, or interdependent with that action. **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 our proposed action. It is **NOT** so important to distinguish between interrelated and interdependent actions in your BA. But, it **IS** important to describe a reasonable connection between these actions and any effects (direct and indirect) they may cause. As a practical matter, the analysis of whether other activities meet these definitions both interdependent and interrelated actions needs to meet the "**but for test.**"[7] The effects from these actions should also be considered in your analysis and factored into your effect determinations under ESA. Not all actions have interdependent or interrelated actions – they are relatively rare.

EXAMPLE

*An example of **interrelated and/or interdependent actions** is the construction of a new road that will at a later time lead to a new visitor center or campground. That road would not be built "but for" the purpose to provide future access to a visitor center or campground. The road is therefore part of a larger action – the ultimate construction and use of a visitor or campground. The road has no independent use if it did not lead to these future developments. Therefore, both the new road and all associated future developments should be analyzed for direct and indirect effects under ESA.*

Insert Exhibit 13 below into your BA to identify whether there are any interdependent and interrelated actions.

Exhibit 13.

Interrelated and Interdependent Actions and Their Effects
Interrelated activities are part of the proposed action that depends on the action for their justification, and interdependent activities have no independent utility apart from the action. There are/no interrelated or interdependent actions associated with this project; therefore, there are/no anticipated adverse effects to this species. *IF THERE ARE ANY – WHAT ARE THEY?*

Incidental Take

Although not required, you can disclose whether you anticipate any "***incidental take***" as defined by ESA from your action. It is the USFWS/NMFS' responsibility to determine if take will occur, and if so, respond back to the action agency with ways to avoid and minimize take in their BO and accompanied ITS. Incidental take does not apply to listed plant species or designated critical habitat – only federally listed animals. A statement such as: "*No incidental take (as defined by ESA) is anticipated for any federally listed species*" (if appropriate) can be included in this section if desired and determinable by the action agency. If incidental take is anticipated or if there is a potential for it to occur, further discussion with USFWS/NMFS is warranted. This would have implications as to your effect determination as discussed below. You cannot have incidental take of a species with a "***no effect***" or "***may affect, not likely to adversely affect***" determination. See Appendix B for more information.

[7] Will another activity occur "***but for***" the proposed action under consultation? If "**NO**" (the activity in question would not occur **but for** the proposed action), then the activity **IS** interrelated or interdependent and should be analyzed with the effects of the action. If "**YES**" (the activity in question would occur regardless of the proposed action), then the activity is **NOT** interrelated to, or interdependent with, the proposed action and should not be analyzed with the effects of the action under consultation.

Effect Determination

Choose ONLY ONE of four possible ESA effect determination choices for federally listed species and designated critical habitat (if designated) in the action area. **A separate effect determination MUST be made for <u>each</u> species** and **<u>each</u>** species' designated **critical habitat.** You must use exact terminology as described below. See Figures 10-13 for further information that may assist you in your effect analysis. Also see Appendix B for addition information, definitions, and examples. Remember, effect analyses and their determinations are made at the <u>individual species level</u> for listed species – not population level. The USFWS/NMFS considers <u>population level effects</u> to listed species and the <u>functionality</u> of critical habitat in its entirety in the BO (formal consultation).

1. "***No effect***" **(NE)** means there are absolutely **NO** (zero/none) effects from the action, positive or negative to a listed species or designated critical habitat. "***No effect***" does <u>not</u> include a small effect or an effect that is unlikely to occur; rather it means there would be **NO** effects what-so-ever. Period! If however, the effects are <u>insignificant</u> (in size) or <u>discountable</u> (extremely unlikely) (see below definitions), a "***may affect, not likely to adversely affect***" determination is more appropriate – not a "***no effect***" determination. A "***no effect***" determination by definition is an extremely high threshold to meet. <u>No</u> incidental take of a listed species can be anticipated under this determination. Actions with this determination are not required under ESA to be submitted to USFWS/NMFS for review or concurrence. See the below examples.

EXAMPLES

*Some examples of rationale for a "**no effect**" determination:*

- *Protocol surveys in 2015 did not document SPECIES X in the action area and the nearest breeding/other occurrence is more than 6 miles away – outside of the action area.*
- *All project related construction activities will occur in the winter/summer/other months when SPECIES X will not be present (e.g., hibernation, migration, season use areas, etc.).*
- *Long-term human use of the area by visitors/administrative uses as a result of this action will not affect SPECIES X foraging, roosting/shelter/nesting/denning/movement/other essential behavior actives.*
- *No suitable nesting/foraging/roosting/sheltering/other habitats occur in the action area.*
- *Suitable foraging/other habitat is present in the action area, but will not be removed, altered, or modified in the short or long-term.*
- *No suitable habitat will be removed, modified, or altered by this action.*

2. A "***may affect, not likely to adversely affect***" **(NLAA)** determination means that all direct, indirect effects from the proposed action and its interrelated or interdependent actions to a listed species or designated critical habitat are ***insignificant*** and/or ***discountable***. **<u>Insignificant</u>** effects relate to the "*very small (immeasurable) size*" of the impact. **<u>Discountable</u>** effects are those "*extremely unlikely to occur*". As defined in the Endangered Species Consultation Handbook (USFWS/NMFS 1998), further defines **discountable effects** as – "*based on best judgment, a person would not: (1) be able to meaningfully measure, detect, or evaluate insignificant effects; or (2) expect discountable effects to occur*". If this is your determination – <u>it is important to specially use one or both of these terms as appropriate, in your document to justify this lower level of effect determination.</u> There can be **<u>NO</u> incidental take** of a listed species anticipated under this determination. This determination requires informal section 7 consultation with USFWS/NMFS and their written concurrence. See the below examples.

EXAMPLES

*Some examples of rationale for a "**may affect, not likely to adversely affect**" determination:*

- *Protocol surveys in 2015 documented SPECIES X in the action area. It is likely that SPECIES X will be exposed to the project activities and effects. However, all effects to essential behaviors will be insignificant (immeasurable) and/or discountable (extremely unlikely to occur) because of the (small area [define] /limited timing [define] /low intensity [describe] /short duration [define]/location [describe]/type of effect [describe], etc.) and a substantial amount [define] of habitat is present and will be unaffected.*
- *The nearest breeding/other occurrence is more than 6 miles away; therefore it will not be adversely affected by this action. The action will however, affect dispersal habitat seasonally, although these effects will be insignificant (immeasurable) and/or discountable (extremely unlikely to occur) because of the (small amount [define]/timing [define]/intensity [define]/duration [define]/location [describe]/type of these effects, etc.), and will not prevent or inhibit dispersal or substantially increase predation/noise/visual disturbance, etc. of young leaving the nest/natal area/etc. and a substantial amount [define] of habitat is present and unaffected in the project area.*
- *Construction/long-term use and human activities will/will not occur during the nesting/denning/hibernation/other season; however effects will be insignificant (immeasurable) and/or discountable (extremely unlikely to occur) because of its (small amount [define]/timing [define]/intensity [define]/duration [define]/location [describe]/type of effect [describe], etc.) and a substantial amount [define] of habitat is present and will be unaffected by this action in the project area.*
- *The potential SPECIES X suitable habitat (approximately 500 feet from the project site) is within the distances associated with project activity harassment threshold (333 feet to 0.25 mile for construction-generated noises). These effects however, will be insignificant (immeasurable) and/or discountable (extremely unlikely to occur) because of the (small [quantify] amount of habitat affected/short [define] duration/limited [season] timing/low intensity/[specify] location/[describe] type of effect, etc.) and a substantial amount [define] of habitat is present and will be unaffected by this action in the project area.*
- *SPECIES X suitable habitat will/will not be removed as a result of this project (If habitat will be removed it must still meet the above insignificant/discountable thresholds).*

3. A "***may affect, wholly beneficial effect***" **(BE)** determination is appropriate if all effects are entirely beneficial or positive without ANY short or long-term negative or adverse effects to the species or habitat. This effect determination cannot be made on the "**net beneficial effects**" of the action if there are ANY negative or adverse effects. NO **incidental take** of a listed species can be anticipated under this determination. This determination requires informal section 7 consultation with USFWS/NMFS and their written concurrence. See the below examples.

EXAMPLES

*Some example rationale for a "**may affect, wholly beneficial effect"** determination:*

- *Construction activities will not occur during nesting/denning/other season and will not adversely affect individuals in the short or long-term and this action will improve habitat quality in the short/long-term..*
- *Suitable nest/denning/roosting/foraging/other habitat is present, although it is currently degraded and marginal in quality. This action will result in improved habitat conditions.*
- *SPECIES X habitat will be improved in the long-term with the removal of invasive species/clearing of understory/removal of barriers/other, therefore improving short and long-term breeding/foraging/sheltering/other habitat conditions.*

4. A "***may affect, likely to adversely affect***" **(LAA)** determination means that there is <u>at least one adverse effect</u> in the short or long-term that does not meet the above definitions. This determination is appropriate if there are <u>ANY</u> short or long-term adverse effects to a listed species or designated critical habitat as a direct or indirect result of the proposed action or its interrelated or interdependent actions, and those effects are <u>NOT</u> *discountable*, *insignificant*, or *wholly beneficial*.

   If the adverse effects can be detected in any way or if it can be meaningfully articulated in a discussion of the results, then it is <u>NOT</u> *insignificant*, and this determination is inappropriate. A combination of beneficial and adverse effects is still "***may affect, likely to adversely affect***" determination, even if the long-term or net effect is neutral or positive. Incidental take may or may not be anticipated. This determination requires formal section 7 consultation with USFWS/NMFS and they must prepare a BO. See the below examples.

EXAMPLES

*Example rationale for a **"may affect, likely to adversely affect**" determination:*

- *Protocol surveys in 2015 documented SPECIES X in the action area. It is likely that SPECIES X will be exposed to the project activities during construction/use that will cause them to leave/be displaced the area (define if temporarily, permanently, or other).*
- *The breeding/roosting/foraging/other activity for SPECIES X has been documented within the action area and will be adversely affected by this new/increased use in the long-term (define) as a result of this action.*
- *Construction activities will occur during the nesting/denning/other season that may adversely affect individuals in the short-term (define).*
- *The project/action is likely to disturb and displace individuals and/or preclude breeding/nesting/denning/foraging/sheltering/movement/other activity within the action area in the short/long-term (define).*
- *The potential SPECIES X suitable habitat (approximately 150 feet from the project site) is within the distances associated with project activity harassment threshold (333 feet to 0.25 mile for construction-generated noises).*
- *Suitable nesting/denning/roosting/sheltering/movement/dispersal habitat occurs in the action area and will be adversely affected by this action in the short-term (define), but not in the long-term (define).*
- *SPECIES X suitable habitat (quantify acres) will be removed/substantially altered/modified, etc.as a result of this action within the action area.*

Figure 12. Effects determination graphic (courtesy of Doug Laye USFWS).

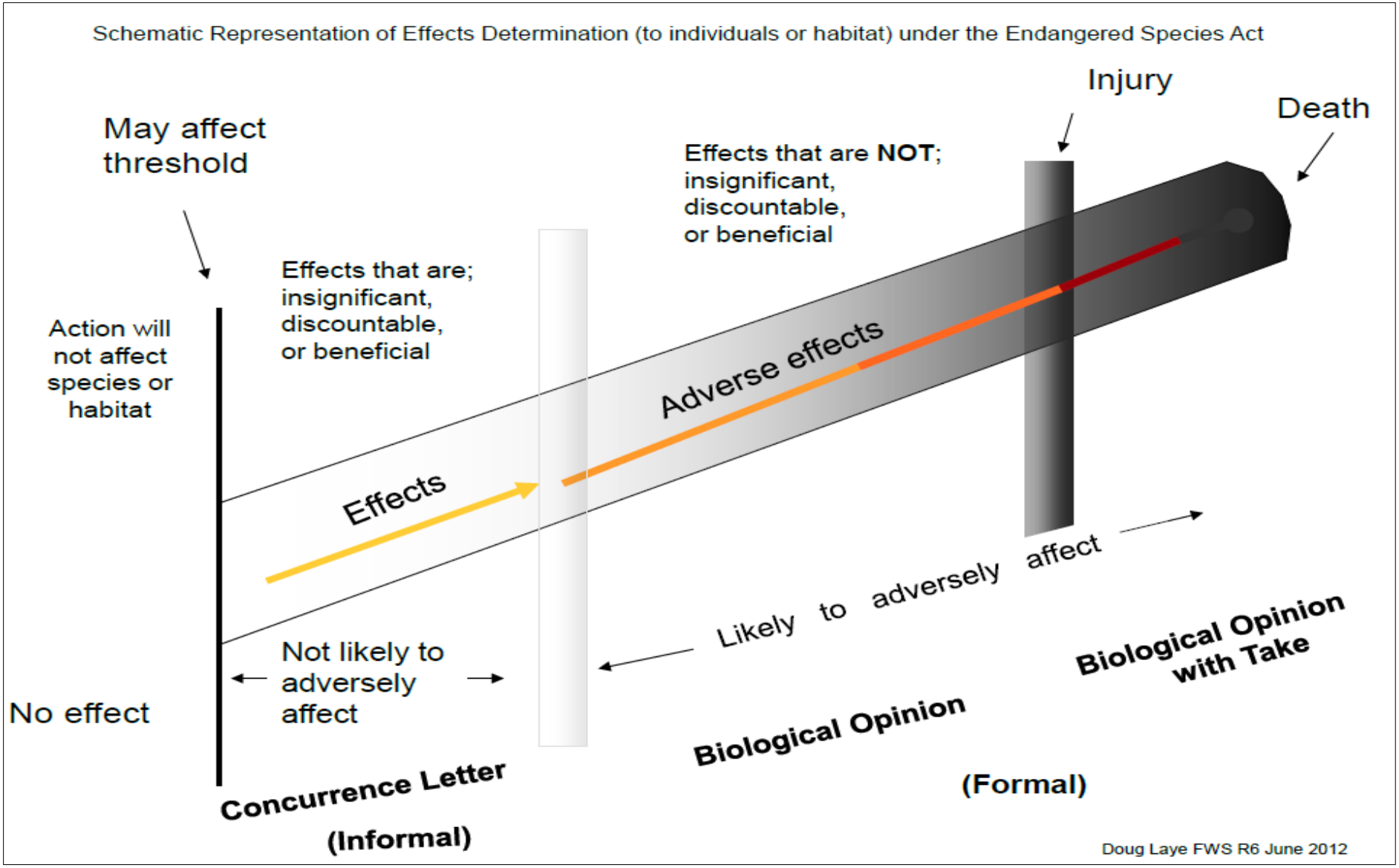


Figure 13. Terms, definitions, and wording used for section 7 consultation (courtesy of Doug Laye USFWS).

Specific terms, definitions, criteria and wording for use in section 7 consultation documents

Doug Laye - Eastern Idaho Field Office – March 2011

Effects Category	Effects Sub - category	Criteria necessary for inclusion in category or sub-category	Effects Determination wording/phrase	Action Needed by Action Agency	Response from FWS
No Effect Definition - "Proposed action will not affect listed species" ---- Or ----- ⬇ **May Affect** Definition - "Proposed action may pose an effect to a listed species or designated critical habitat"	**None**	*"Action won't pose any effects to listed species or designated critical habitat."* *(Remember that effects are measured at the individual scale not population scale. And don't forget to consider whether any effects could occur through an indirect mechanism e.g. changes to its habitat, etc.)*	No Effect (NE)	Document rationale for findings in project file	None
	May affect - Not Likely to Adversely Affect (NLAA) ------- Or ----- **May Affect - Likely to Adversely Affect (LAA)**	*"Effects on listed species are expected to be discountable, insignificant or beneficial."* Discountable = those effects that are extremely unlikely to occur. Based on best judgment a person would not expect discountable effects to occur. Insignificant = based on best judgment, a person would not be able to meaningfully measure, detect, or evaluate insignificant effects. Insignificant effects should never reach the level where take* occurs. Beneficial = are contemporaneous positive effects without any adverse effects *(even short term)* to the species. *"…the effect is not insignificant, discountable or beneficial…"* *[see definitions above]*	May affect - Not Likely to Adversely Affect (NLAA) May Affect - Likely to Adversely Affect (LAA)	After informal consultation. discussions and preparation of a biological assessment on impacts to the species - request a concurrence letter from the FWS Submit biological assessment and request formal consultation from the FWS	If the FWS agrees with action agency's assessment and determinations - they issue a concurrence letter. If FWS does not concur, discussions and consultation between agencies continues Issue a biological opinion, and if adverse effects are likely to result in Take* - issue an Incidental Take Statement with Terms and Conditions

* **Take** (Section 9 of the Act) is defined as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct". **Harm** is further defined by the Service (50 CFR, §17.3) as an act which actually kills or injures wildlife. Such act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering. **Harass** is defined by the Service (50 CFR, §17.3) as an intentional or negligent act or omission which creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding, or sheltering.

8.2 Critical Habitat

What is critical habitat? Critical habitat is a term legally defined and used in the ESA. It is a specific geographic area(s) that contains features "*essential for the conservation of a threatened or endangered species and that may require special management and protection.*" Critical habitat is defined by describing "physical and biological features" (also sometimes called "primary constituent elements" [PCE]). PCEs are "*those physical and biological features of a landscape in the appropriate quantity and spatial arrangement that a species needs to survive and reproduce.*" An area is designated as critical habitat after USFWS/NMFS publishes a proposed federal regulation in the *Federal Register* and they consider public comments on the proposal.

The USFWS/NMFS may identify large areas of critical habitat that may encompass areas that are NOT classified as critical habitat by definition. Final Rules published in the *Federal Register* normally exclude developed areas such as buildings, roads, airports, parking lots, piers, and other such facilities. It does not typically include all suitable habitats for a species. Critical habitat may include an area that is not currently occupied by the species but that will be needed for its recovery. Additionally, actions will only require section 7 consultation if they affect areas that contain the PCEs required by the species. An area designated as critical habitat is not a refuge or sanctuary for the species. Listed species and their habitat are protected by ESA whether or not they are designated as critical habitat. Not all suitable habitats may be designated as critical habitat and not all T&E species have designated critical habitat.

What is the purpose of designating critical habitat? Federal agencies are required to consult with USFWS/NMFS on actions they "*carry out, fund, or authorize* [a federal nexus] *to ensure that their actions will not destroy or adversely modify critical habitat.*" In this way, a critical habitat designation protects areas that are necessary for the conservation of the species. Biologists consider physical and biological features/PCEs needed for life processes and successful reproduction of the species.

Examples include:

- **space** for individual and population growth and for normal behavior;
- **cover** or **shelter**;
- **food, water, air, light, minerals**, or other **nutritional** or **physiological** requirements;
- sites for **breeding** and **rearing offspring**;
- **movement** within or between area; and
- habitats that are **protected from disturbances** or are representative of the historic geographical and ecological distributions of a species.

*When considering critical habitat, consider not only the current condition of the habitat, but also how your action might affect the ability of the area to become suitable in the future. Will your action delay or prohibit its development or otherwise affect the quality of critical habitat **now** or in the **future**?*

If USFWS/NMFS has designated critical habitat for a species, **we must determine the effects of our proposed actions to designated critical habitat – just as we have done for listed species.** Accessing the IPaC website (*Pre-field Review* – Section 5.0 of your BA and see Appendix E) will assist you in determining whether there is critical habitat within your action area.

DIRECT AND INDIRECT EFFECTS

We must assess the effects of our management actions to critical habitat. This analysis is a "parallel analysis" that is done in a similar manner as what was done for each species addressed above. Address the direct, indirect, and cumulative effects to critical habitat. Use the same guidance for your effect analysis as described above for federally listed species (Section 8.1 of your BA). Federal agencies need to treat critical habitat as if it were "another listed species" – in other words, with a **separate effect analysis** for critical habitat and **effect determination** for critical habitat. Refer to USFWS/NMFS' *Federal Register* Final Rule or other guidance documents on designated critical habitat for further discussion of what PCEs have been identified for that species and how they may be affected by management activities. When considering critical habitat, consider not only the

current condition of the habitat, but also how your action might affect the **ability of the area to become suitable in the future by developing PCEs**. Also, consider if your action **delay or prohibit the development of PCEs** or otherwise affect the quality of critical habitat now or in the future. USFWS/NMFS considers the action's effect to the critical habitat unit as a whole in its entirety or unit to function, in determining whether the action is likely to result in "***destruction or adverse modification***" of critical habitat.

CUMULATIVE EFFECTS

Address cumulative effects for critical habitat (use ESA definitions – see above discussion). What other activities are going on and what are their impacts to critical habitat?

Effect Determination

You must choose ONLY ONE of four possible ESA effect determination choices for designated critical habitat. You must use this exact terminology as defined above for federally listed species.

8.3 Proposed Species and Proposed Critical Habitat (if needed)

Address the direct, indirect, and cumulative effects to each federally proposed species and critical habitat. Use the same guidance for your effect analysis as described above for federally listed species.

DIRECT AND INDIRECT EFFECTS

Use the same guidance for your analysis of direct and indirect effects as described above for federally listed species.

CUMULATIVE EFFECTS

Address cumulative effects for each species (use ESA definitions – see above discussion). What other activities are going on and what are their impacts to the species/critical habitat addressed?

Effect Determination

You must choose ONLY ONE of the following three possible ESA effect determination choices for each federally proposed species and/or proposed critical habitat. You must use this exact terminology.

1. "***No effect***" means there are absolutely NO effects of the action (same for listed species described above).
2. "***Not likely to jeopardize the continued existence or adversely modify proposed critical habitat***" means the action will not jeopardize a proposed species or adversely modify or destroy proposed critical habitat.
3. ***"Likely to jeopardize/adversely modify proposed species/critical habitat"*** is the appropriate conclusion when the action agency finds effects are expected to reduce appreciably the reproduction, numbers, or distribution of the species or impair the ability of proposed critical habitat to support survival and recovery of the species. If this conclusion is reached, conference is required with USFWS/NMFS (Appendix G).

The BA should also provide a conditional or provisional effect determination ("***No effect", "Not likely to adversely affect",*** or "***Likely to adversely affect"***) using the definitions above in the event that the species becomes listed prior to the completion of the action. The rationale used for this determination must be justified with a summary of relevant supporting evidence as described above.

If requested by the Federal agency and deemed appropriate by the USFWS, conferencing may be conducted in accordance with consultation procedures for listed species. An option is to conference at the "may affect" level, rather than the "jeopardy" level, to facilitate a smoother transition if/when the species is later listed.

8.4 State or Locally Listed Species of Concern (if included)

Including these species in your document can fulfill NPS policy and NEPA requirements, as the analysis of effects for them is the same process (as done above for T&E species as outlined in Figure 4 above. This consists of the following: describing the proposed management action, identify the species and habitats that are present in the project area, conduct an analysis of direct, indirect, and cumulative effects (NEPA definition) from your action, and ultimately conclude with an effect determination with rationale for each species. You can document this analysis in a BA or NEPA document. If you include state or locally listed species or species of concern in your BA, be sure to separate your discussion for state and local species of concern into a separate sections from federally listed/proposed species. Analysis of species that are not federally listed or proposed is not required under the Act and USFWS/NMFS will not be reviewing your analysis for those species. Use the same guidance for your effect analysis for these species as described above for *Federally Listed Species* (Section 8.1 of your BA).

DIRECT AND INDIRECT EFFECTS

Use the same guidance for your analysis of direct and indirect effects as described above for *Federally Listed Species* (Section 8.1).

CUMULATIVE EFFECTS

Address cumulative effects for each species (use NEPA definition [NOT ESA definition since these are not ESA listed species] – see above discussion). *What other activities are going on and what are the impacts of them to the species addressed?* See discussion above in Guidebook for additional information as to content for this section.

Effect Determination

There is no standard effect determination terminology for these species. It is suggested that you use "***may impact***" or "***no impact***" determinations.

9.0 EFFECT DETERMINATION SUMMARY

A summary table can be helpful for assessments addressing multiple species and/or alternatives (Insert Exhibit 14 below into your BA). This may not be needed if only a few species are addressed in your document. If you are assessing multiple alternatives you can include them as shown below; otherwise, list the effect determinations for each species and critical habitat for the proposed management action only.

Exhibit 14.

Table X. Effect determinations for species addressed.

Common Name	Scientific Name	Status	Determinations of Effects[1]			
			Alt A	Alt B	Alt C (Proposed Action)	Alt D
XXXXXX	*XXXXXX*	Threatened	No Effect	NLAA	NLAA	NLAA
XXXXXX	*XXXXXX*	Endangered	No Effect	NLAA	LAA	LAA
XXXXXX	*XXXXXX*	Critical Habitat	No Effect	NLAA	NLAA	NLAA

[1] **NE**=no effect; **NLAA**=may affect, not likely to adversely affect; **LAA**=may affect, likely to adversely affect; **BE**=beneficial effect; **MI**=may impact; **NI**=no impact *(IF INCLUDING STATE/LOCAL SPECIES OF CONCERN)*

10.0 ADDITIONAL CONSERVATION RECOMMENDATIONS (OPTIONAL)

This is where you can suggest additional recommendations, mitigation, or conservation measures to further avoid or minimize adverse effects to listed species that are not included in the action description (identified above). Your analysis and effect determinations above should not consider these measures in your analysis or effect determinations because there is no commitment that they will be implemented. If additional conservation measures (or mitigation) are recommended, discuss how they might further avoid or minimize adverse effects to listed species. Adoption of recommendations would likely require additional discussion by interdisciplinary team (IDT) members and NEPA analysis to modify the proposed action.

*Your analysis and effect determinations should not consider **conservation recommendations** as if it is unknown or assured whether they will be implemented.*

11.0 NEED FOR RE-ASSESSMENT BASED ON CHANGED CONDITIONS

Include a disclaimer or acknowledgement statement that states if there are any changed conditions **outside of the bounds of your analysis** that a **reassessment** of effects and potential reinitiation of section 7 consultation may be warranted. These may include but is not limited to **new species listings** or **critical habitat designations**, a **change in the action**, **new species occurrence** information, etc. Insert Exhibit 15 into your BA.

Exhibit 15.

11.0 NEED FOR RE-ASSESSMENT BASED ON CHANGED CONDITIONS

This BA and findings below are based on the best current data and scientific information available. A new analysis and revised BA must be prepared if one or more of the following occurs: (1) new species information (including but not limited to a newly discovered presence, activity area, or other species information) reveals effects to threatened, endangered, proposed species, or designated/proposed critical habitat in a manner or to an extent not considered in this assessment; (2) the action is subsequently modified or it is not fully implemented as described herein which causes an effect that was not considered in this assessment; or (3) a new species is listed or critical habitat is designated that may be affected by the action not analyzed herein.

12.0 LITERATURE CITED

List all contacts, sources of data, and scientific literature cited in this document. It is important to list all references used in your document.

APPENDICES (IF INCLUDED)

Include any maps, photographs, official species list letter from IPaC, and other supporting or supplemental material referred to in the document (if necessary).

7.0 SHORTER FORMAT BA FOR ACTIONS WITH "*NO EFFECTS*"

This shorter BA format ("Little b-BA") differs from the longer format BA template described in the previous section ("Big B-BA") in that this format is intended for actions that are simple and straight-forward, with no alternatives, and with lower risk and controversy. It can be used for actions that will have "***no effect***" on a T&E species and critical habitat.

*This format should only be used for simple and straight forward projects with only one alternative that will have "**no effect**" on T&E species or their designated critical habitat.*

This format can be used for CEs and/or actions that are limited in scope and effect. While this format is shorter in length, it is essential to still address pertinent sections presented in Section 6.3 of this Guidebook for the longer format BA and those sections may be shorter in length. Specific guidance as to the contents of each section will not be repeated here. Please refer to Section 6.3 of this Guidebook for specific guidance and examples for each section of your BA. Appendix H contains templates that can be used to assist you in writing your BA. Insert Exhibit 16 into your short-form BA.

Title Heading

Exhibit 16.

NAME OF PROJECT
BIOLOGICAL ASSESSMENT – LIMITED SCOPE ASSESSMENT

XXXXXXXX NATIONAL PARK/MONUMENT
NATIONAL PARK SERVICE – U.S. DEPARTMENT OF INTERIOR

DATE

Action Description and Location

Briefly, but fully describe each of the major components of the action so the reader has a good understanding of it (e.g., who is proposing, what is proposed, when will it occur, where, why [purpose and need], how will it occur, etc.). Provide enough information so that the document can stand alone; however, the NEPA document can be referenced for some specific details. Information provided must be sufficient to provide a foundation for the reader to clearly understand what is being proposed that will be used in the effect analysis. Specifics are helpful (i.e., the components of an action [break it down – e.g., all permanent or temporary roads, types of treatments, and all other associated activities]). Include all pertinent conservation measures, design criteria, or mitigation that has been built in to reduce or avoid effects to species. Include maps, photos, etc. to provide a better understanding of existing conditions, what actions are proposed, and where they will be located. See the discussion above in Section 6.3 of this Guidebook for additional information as to content for this section – although your discussion may be shorter and more abbreviated. Insert Exhibit 17 below into your short-form BA**.**

Exhibit 17.

Project Description and Location

This proposed project consists of XXXXXXXXXXXX…..

Action Area Description

Define the action or project area (see *Action Area Description* – Section 4.0 of the longer format BA above and Appendix D) for more discussion. Describe the action area (e.g., location [i.e., county, state, National Park/Monument Unit, and legal description], vegetation communities and ecosystems present, topography, climate, and proximity to nearby roads, towns, or other landmarks, etc.). Give enough information to the reader so they know the vegetation and habitat conditions. This section can be shorter and more abbreviated than the longer BA format presented above. Insert Exhibit 18 below into your short-form BA**.**

Briefly describe the action area including:

- **Vegetation** communities/ecosystems that are present and existing conditions;
- General **landscape** features, topography, slope, aspect, exposure, etc.

Exhibit 18.

Action Area Description

FOR EXAMPLE: Vegetation types present within the action area consist of primarily mixed conifer and montane grassland. Conifer tree species present include ponderosa pine (*Pinus ponderosa*), white fir (*Abies concolor*), and Engelmann spruce (*Picea engelmannii*). There is little to no understory present. Forested areas are interspersed with a mosaic of montane grass/shrublands. Slopes are moderate, ranging from approximately 5% to 20% and are east and south-facing slopes. Elevations range from approximately 9,000-9,500 ft……

Evaluation

Insert Exhibit 19 below into your short-form BA.

Exhibit 19.

Evaluation

This form will aid in assessing the extent of the Biological Assessment (BA) based on the Pre-field Review. By following this checklist, the reviewer can determine if any federally listed threatened, endangered, and proposed (T&E) WILDLIFE, FISH, AND/OR PLANT species or designated critical habitat might be affected by the project. These species are listed in Table X below.

- **Federally listed or proposed species or critical habitat known in project area (check US Fish and Wildlife Service [USFWS] or NMFS species lists, database, files, site records, and any other pertinent resources):** A species list from the USFWS was obtained and reviewed for this project on XXXXX (*DATE*). *YOU MUST USE A CURRENT SPECIES LIST – SEE DISCUSSION ABOVE*. In addition, XXXX species database, park files, and references were consulted. There ARE/NO (*AS APPROPRIATE*) known locations of T&E species in the action area. *LIST EACH SPECIES THAT MAY BE PRESENT WITHIN THE ACTION AREA. WERE SURVEYS COMPLETED? WAS THE SITE VISITED? BY WHOM/WHEN?*

- **Habitats of listed or proposed species/critical habitat in the project area by the USFWS/NMFS:** No critical habitat has been proposed or designated by the USFWS within the project area. The action area for this proposed action is defined as XXXX – *THIS MAY BE DIFFERENT FOR EACH SPECIES BASED ON THEIR HOME RANGES, AFFECTED AREA, ETC. – SEE DISCUSSION ABOVE.*

- **Habitats of state or locally listed species in the project area:** The action area for this proposed action is defined as XXXX – *THIS MAY BE DIFFERENT FOR EACH SPECIES BASED ON THEIR HOME RANGES, AFFECTED AREA, ETC. – SEE DISCUSSION ABOVE.* There are no known locations of any T&E species in the project area. *WERE SURVEYS COMPLETED? WAS THE SITE VISITED? BY WHOM/WHEN?*

T&E Species Suspected Based on Habitat

Insert Exhibits 20, 21, and 22 below into your short-form BA. Edit as necessary.

Exhibit 20.

T&E Species Suspected Based on Habitat

The action area (defined as the area whereby land, air, or water may be directly or indirectly affected by the proposed action) was reviewed for potential/suitable habitat for T&E species. An official species listed was obtained from the USFWS/NMFS on (DATE). A review of this list was completed and species with no potential or suitable habitat, outside of the species' distributional range, outside of the species' elevational range were excluded from further review. Table X below lists those species that are known or could potentially occur on in the action area, species having the potential to occur within the action area based on habitat requirements and know locations, and those that have been excluded from further analysis with rationale. A brief description of their range and habitat is also included. *USE AND EDIT THE BELOW TABLE AS APPROPRIATE.*

Exhibit 21.

Table X. Threatened, endangered, candidate/proposed species with the potential to occur within the action area and critical habitat. The USFWS/NMFS species list (USFWS 2013) was obtained (DATE XX) and reviewed and species/critical habitat not having the potential to occur were excluded from further review with a no effect determination.
[1] **Status Codes**: **E**=federally listed endangered; **T**=federally listed threatened; **P**= federally proposed for listing; **C**= federal candidate for listing; and **CH**=designated critical habitat. *(IF YOU ARE ALSO INCLUDING STATE OR LOCALLY LISTED SPECIES INCLUDE CODE HERE AS WELL)*
[2] **Exclusion Rationale Codes**: **ODR**=outside known distributional range of the species; **HAB**= no habitat present in action area; **ELE**= outside of elevational range of species; and **SEA**=species not expected to occur during the season of use/impact.

Species Common and Scientific Name	Status[1]	Potential to Occur	Critical Habitat	Rationale for Exclusion[2]	Habitat Description and Range in the Action Area
INVERTEBRATES					
COMMON NAME *SCIENTIFIC NAME*	*E*	*No*	*No*	*HAB, ELE*	*known to only occur above timberline on Mt. XXX, laying eggs on snow willow (Salix nivalis); potentially occurring in XXX & XXX counties in XXX*
AMPHIBIANS AND REPTILES					
COMMON NAME *SCIENTIFIC NAME*	*C*	***YES***	*No*		*breeds in ponds & over winter in refugia within lodgepole pine, spruce-fir forests, & alpine meadows; 7,500-12,000 ft; XXX County has the only viable population in XXX*
BIRDS					
COMMON NAME *SCIENTIFIC NAME*	*T*	*No*	***YES***	*HAB*	*steep-sided canyons with old-growth mixed conifer forests, nesting on cliff ledges or caves along canyon walls in shady/cool canyons of the piñon/juniper zone in XXX*

((SUMMARIZE THE ABOVE TABLE) As indicated in the above table, there is one federally listed threatened or endangered, candidate/proposed species *(LIST THEM)* with the potential to occur (i.e., habitat is present) and one designated critical habitat within the action area. Therefore, only those species and critical habitat will be addressed hereafter in this assessment (evaluated species). The remaining species/critical habitat shown above without a potential to occur will not be analyzed further based on the rationale provided. The proposed action will have no effect on these other species or critical habitat.

Exhibit 22.

STEP 1. Does the evidence indicate that no T&E species or possible habitat exists within the project area?

☐ **YES – "*No Effect*" determination. Attach a thorough explanation below, sign, and date this document (BA is complete).**

☒ **NO – Go on to STEP 2**

STEP 2. Based on knowledge of the proposed project and the species involved, can a "*No Effect*" determination be made?

☒ **YES – Complete the following sections, sign, and date this document (BA is complete).**

☐ **NO or CANNOT BE DETERMINED WITH AVAILABLE INFORMATION – BA cannot be completed.**

If you answered "YES" to any of the above questions, this document itself may act as a completed Biological Assessment. Please attach any species lists, explanatory rationale and/or supporting documents. However if "NO" or "CANNOT BE DETERMINED" was assessed, the biologist must gather the appropriate information to complete this assessment and return to STEP 2 above OR use another Biological Assessment format that is commensurate with more complex projects or those having a higher level of effect to listed species (such as "*may affect, not likely to adversely affect*" or "*may affect, likely to adversely affect*" ESA determinations).

Consultation with USFWS/NMFS

List any consultations that have occurred previously **specific to this action** – date, type, and with whom. See the discussion above in Section 6.3 of this Guidebook for additional information as to content for this section.

Environmental Baseline

This is section **optional** in the "shorter format – No Effect BA." Discuss past and ongoing activities (both federal and non-federal), their effects on the species addressed, and the status of each species. List previous section 7 consultations that have already previously taken place within your action area, species addressed, and the effect determination for each. List and describe the effects of past and ongoing activities to the species you are addressing. See the discussion above in Section 6.3 of this Guidebook for additional information as to content for this section – although your discussion may be shorter and more abbreviated. Insert Exhibit 23 below into your short-form BA.

Exhibit 23.

Environmental Baseline

As defined under the ESA, the environmental baseline includes past and present impacts of all federal, state, and private actions in the action area; the anticipated impacts of all proposed federal actions in the action area that have undergone formal or early section 7 consultation; and the impact of state and private actions which are contemporaneous with the section 7 consultation process. Future actions and their potential effects are not included in the environmental baseline. This section defines the current status of the species and its habitat in the action area and provides a platform to assess the effects of the proposed action under consultation with the USFWS/NMFS.

Previous activities and section 7 consultations that have occurred within the action area include… *(LIST AND BRIEFLY DESCRIBE EACH ACTIVITY AND WHAT WERE THEIR EFFECTS TO EACH SPECIES ADDRESSED?)….*

Federally Listed Species

Separate federally listed species according to taxa (e.g., under headings such as **WILDLIFE**, **FISH**, and **PLANTS**). For each species, discuss the direct, indirect, and cumulative effects, whether they will be any anticipated incidental take, and your effect determination.

Direct and Indirect Effects

This is the **most important section of your analysis** that **must support your "*no effect*" determination** below. Consider the following in your analysis for each species addressed:

For each species addressed, discuss the following:

- *What is the **proximity** of the action to the species occurrence or suitable habitat?*
- *What **time of year** will the action occur related to critical periods (e.g., reproduction, wintering, etc.)?*
- *What **habitats** will be affected?*
- *What is the **distribution** of where the species occurs in your action area?*
- *What is the **duration** of the effects (include direct effects and indirect effects) of the proposed action on affected species (i.e., short-term, long-term, or permanent events)?*
- *What is the **probability** of these effects happening?*
- *What is the **species response** to these effects*?
- *What is the **likelihood of a response** to these stressors for any given species?*
- *Are the effects **short-term** (define time period) **long-term** (define time period?) or both? What are they and how important is this?*
- *What is the disturbance **frequency** of the event or action (i.e., how often the effect will occur)?*
- *What is the disturbance **intensity** (i.e., how much of the habitat will be affected)?*
- *What is the **severity** (i.e., how long will the habitat take to recover)?*
- *What is the **nature of the effects** on the species' lifecycle, population size, variability, or distribution?*
- *What part of the **population** will be affected by this action?*
- *What is the **relative importance** of the action area to the species addressed?*
- *What is the species **response** to these **stressors** and **effects**?*

Remember:

- Provide a clearly **documented path** of what you considered in your analysis (all of the potential effects) and **how you arrived at your determination** below - articulate your **thought process** to your determination.

See the discussion above in Section 6.3 of this Guidebook for additional information as to content for this section – although your discussion may be shorter and more abbreviated due to the lower level of effect.

Cumulative Effects

Address cumulative effects for each species (use ESA definition – see above). What other activities are going on and what are their impacts to the species addressed? See the discussion above in Section 6.3 of this Guidebook for additional information as to content for this section – although your discussion may be shorter and more abbreviated. Insert Exhibit 24 below into your short-form BA.

Exhibit 24.

Cumulative Effects *(CAN BE ADDRESSED BY TAXON, INDIVIDUAL SPECIES, GUILDS, LUMPED OR SEPARATELY – HOWEVER YOU CHOOSE)*

Cumulative effects are defined somewhat differently under ESA and NEPA. Under ESA, cumulative effects are reasonably foreseeable future state, private and tribal activities only. For ESA cumulative effects, we do not consider the effects of past or future federal actions. ESA cumulative effects are additive to the environmental baseline (past and ongoing actions and their effects) we described above in that section of the BA. Conversely, under NEPA, cumulative effects include all past and ongoing actions and their effects that are additive to the effects from all reasonably foreseeable future actions (federal and non-federal) as well. For ESA consultation purposes in this BA, we are using the ESA definition of cumulative effects.

Below is a summary of future non-federal (private, state, or tribal only) activities that are reasonably likely to occur within the action area that directly and indirectly affect species/critical habitat addressed in this assessment. These are added to the environmental baseline (discussed above). *IN MANY INSTANCES, THESE PAST ACTIVITIES AND THEIR EFFECTS REMAIN TO THIS DAY AND ARE CURRENTLY ONGOING. LIST EACH ACTIVITY AND DESCRIBE THE EFFECTS TO EACH SPECIES ADDRESSED.*

Interrelated and Interdependent Actions

Identify if there are any interdependent or interrelated actions (defined earlier in this Guidebook) and if so what the effects of these activities might be. Rarely will there be any for simple and straight forward actions for which this short-form BA is intended. See above in Section 6.3 above for additional information. Insert Exhibit 25 into your short-form BA.

Exhibit 25.

Interrelated and Interdependent Actions
There are no interdependent or interrelated actions associated with this action.

Incidental Take

This shorter version BA is intended for actions that have a "***no effect***" determination for federally listed species. By definition, there **cannot be any incidental take of a listed species** for actions with a "***no effect***" determination. Therefore, it is important to state there will be no incidental take. Insert Exhibit 26 into your short-form BA.

Exhibit 26.

Incidental Take
There will not be any incidental take of any federally listed species under this proposed action.

Critical Habitat (IF DESIGNATED BY THE USFWS/NMFS) and if it is within your action area.

If USFWS/NMFS has done so, we must determine the effects of our proposed actions to critical habitat – just as we have done for each species. Address the direct, indirect, and cumulative effects to critical habitat. Your effects analysis for critical habitat is done separately from the species. Federal agencies should treat critical habitat as if it were another listed species – that is, a separate effect analysis and determination must be conducted. You must also make a separate determination for each species' critical habitat using the above determinations.

Direct and Indirect Effects

Use the same guidance for your effect analysis as described above for each federally listed species. Your effects analysis for critical habitat is done separately from the species.

Cumulative Effects

Address cumulative effects for each species (use ESA definition – see above discussion). What other activities are going on and what are the impacts of them to the species addressed? See the discussion above for additional information as to content for this section – although your discussion may be shorter and more abbreviated.

Proposed Species and Proposed Critical Habitat (IF NEEDED)

Address the direct, indirect, and cumulative effects to each federally proposed species and critical habitat. Use the same guidance for your effect analysis as described above for federally listed species. This shorter version BA is intended for actions that have a "***no effect***" determination only.

Direct and Indirect Effects

Use the same guidance for your effect analysis as described above for each federally listed species.

Cumulative Effects

Address cumulative effects for each species (use ESA definition – see above discussion). What other activities are going on and what are the impacts of them to the species addressed? See the discussion above for additional information as to content for this section – although your discussion may be shorter and more abbreviated.

Effect Determinations for Listed/Proposed Species and Designated/Proposed Critical Habitat

Because your effect determinations are the same ("***no effect***") for all species, you can lump your determinations together. This shorter version BA is intended only for actions that have a "***no effect***" determination for federally listed species and designated critical habitat. Insert Exhibit 27 below into your short-form BA.

Exhibit 27.

Effect Determinations for Listed/Proposed Species and Designated/Proposed Critical Habitat

Based on the above rationale, habitat for T&E species addressed in this assessment will not be affected with this action. Therefore, there would be "***no effect***" to any federally listed or proposed species (listed in Table X above) or designated or proposed critical habitat from the proposed management action.

State or Locally Listed Species of Concern (IF INCLUDED)

If you include state or locally listed species or species of concern in your BA document – be sure to separate your discussion of the direct, indirect, and cumulative effects of the proposed action and alternatives for these species into a separate section from federally listed/proposed species. Analysis of species that are not federally listed or proposed is not required under the Act and USFWS/NMFS will not be reviewing your analysis for those species.

Effect Determination for State or Locally Listed Species of Concern

This shorter version BA is only intended for actions that have no impacts to state or local species of concern. There is no standard effect determination terminology for these species. It is suggested that you use "***may impact***" or "***no impact***" determinations. Insert Exhibit 28 below into your short-form BA.

Exhibit 28.

Effect Determinations for State or Locally Listed Species of Concern
Based on the above rationale, habitat for state or locally listed species of concern addressed in this assessment will not be affected with this action. Therefore, there would be "***no impact***" to any of these species (listed in Table X above) from the proposed management action.

Additional Conservation Recommendations

These are recommendations only – NOT requirements. Your analysis and determinations must not be based on whether they are implemented or not. List any additional recommendations here.

Need for Re-Assessment Based on Changed Conditions

Include a statement of when a re-assessment is required. Insert Exhibit 29 below into your short-form BA.

Exhibit 29.

Need for Re-Assessment Based on Changed Conditions
This BA and findings above are based on the best current data and scientific information available. A new analysis and revised BA must be prepared if one or more of the following occurs: (1) new species information (including but not limited to a newly discovered activity area or other species information) reveals effects to threatened, endangered, proposed species, or designated/proposed critical habitat in a manner or to an extent not considered in this assessment; (2) the action is subsequently modified or it is not fully implemented as described herein which causes an effect that was not considered in this assessment; or (3) a new species is listed or critical habitat is designated which may be affected by the action that was not previously analyzed herein.

Signature Section

Be sure to sign and date your document. Insert Exhibit 30 below into your short-form BA.

Exhibit 30.

Prepared by:

/s/ *Your Name* _____ DATE
YOUR TITLE Date

/s/ *Other's Name* (if necessary) _____ DATE
THEIR TITLE Date

References Cited

List all contacts, sources of data, and scientific literature cited in this document.

Supporting Documentation

INSERT IF NECESSARY.

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APPENDICES

Appendix A – Terms and Phrases Used in Section 7 Consultation

This glossary is intended to give the meaning of key words but does not necessarily provide a legal definition or thorough description. To locate the legal definitions of ESA terms, see Title 50 of the CFR (Wildlife and Fisheries) of which there are 700 parts. For example, 50 CFR 17 covers listed species; furthermore, 50 CFR 17.11 covers federally listed wildlife and 50 CFR 17.12 covers listed plants. The following are some common terms used in ESA and section 7 consultation.

Act – the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.).

Action – all activities or programs of any kind authorized, funded, or carried out, in whole or in part, by federal agencies of the United States or upon the high seas. Examples include, but are not limited to: (a) actions intended to conserve listed species or their habitat; (b) the promulgation of regulations; (c) the granting of licenses, contract, leases, easements, rights-of-way, permits, or grants-in-aid; or (d) actions directly or indirectly causing modifications to the land, water, or air (50 CFR §402.02).

Action Area – all areas to be affected directly or indirectly by the federal action and not merely the immediate area involved in the action (50 CFR §402.02). Defined as the area your proposed action may impact (affect) the physical, chemical. And biological (biotic) components of land, air, and water – either directly or indirectly.

Affect/effect – to affect (a verb) is to bring about a change (e.g., "The proposed action is likely to adversely affect piping plovers nesting on the shoreline"). The effect (usually a noun) is the result (e.g., "The proposed highway is likely to have the following effects on the Florida scrub jay"). **Affect** appears throughout section 7 regulations and documents in the phrases "***may affect***" and "***likely to adversely affect***." **Effect** appears throughout section 7 regulations/documents in phrases "***adverse effects***," "***beneficial effects***," "***effects of the action***," and "***no effect.***"

Anticipated – in incidental take statements (ITS), USFWS/NMFS determines the amount or extend of incidental take "anticipated" (expected) due to the proposed action or an action modified by reasonable and prudent measures (RPM).

Applicant – any person (an individual, corporation, partnership, trust, association, or any other private entity; or any officer, employee, agent, department, or instrumentality of the Federal Government, of any State, municipality, or political subdivision of a State; or any other entity subject to the jurisdiction of the United States) (ESA §3(12)) who requires formal approval or authorization from a federal agency as a prerequisite to conducting the action (50 CFR §402.02).

Appreciable Diminish the Value – to considerably reduce the capability of designated or proposed critical habitat to satisfy requirements essential to both the survival and recovery of a listed species.

Beneficial Effects – contemporaneous positive effects without any adverse effects to that species. There can be no negative or adverse effects what-so-ever.

Best available Scientific and Commercial Data – to assure the quality of the biological, ecological, and other information used in the implementation of the Act, it is the policy of the USFWS/NMFS to: (1) evaluate all scientific and other information used to ensure that it is reliable, credible, and represents the best scientific and commercial data available; (2) gather and impartially evaluate biological, ecological, and other information disputing official positions, decisions, and actions proposed or taken by the USFWS/NMFS; (3) document their evaluation of comprehensive, technical information regarding the status and habitat requirements for a species throughout its range, whether it supports or does not support a position being proposed as an official agency position; (4) use primary and original sources of information as the basis for recommendations; (5) retain these sources referenced in the official document as part of the administrative record supporting an action; (6) collect,

evaluate, and complete all reviews of biological, ecological, and other relevant information within the schedules established by the Act, appropriate regulations, and applicable policies; and (7) require management-level review of documents developed and drafted by Service biologists to verify and assure the quality of the science used to establish official positions, decisions, and actions taken by the USFWS/NMFS during their implementation of the Act (59 FR 34271).

Biodiversity – the variety of life and its processes, including the variety of living organism, the genetic differences among them, and the communities and ecosystems in which they occur.

Biological Assessment (BA) – information prepared by, or under the direction of a federal agency to determine whether a proposed action is likely to (1) adversely affect listed species of designated critical habitat; (2) jeopardize the continued existence of species that are proposed for listing; or (3) adversely modify proposed critical habitat. The outcome of this determines whether formal consultation or a conference is necessary (50 CFR §402.02, 50 CFR §402.12).

Biological Opinion (BO or BiOp) – document which includes: (1) the opinion of the USFWS/NMFS as to whether or not a federal action is likely to jeopardize the continued existence of listed species, or result in the destruction or adverse modification of designated critical habitat; (2) a summary of the information on which the opinion is based; and (3) a detailed discussion of the effects of the action on listed species or designated critical habitat (50 CFR §402.02, 50 CFR §402.14(h)).

Candidate Conservation Agreement (CCA) – a voluntary agreement between USFWS and other federal or non-federal landowners that identifies specific conservation measures that the participants of the agreement will undertake to conserve species covered by the agreement, none of which are listed under the ESA, with the intention of preventing any need to list the species.

Candidate Conservation Agreement with Assurances (CCAA) – a voluntary agreement between USFWS and a non-federal property owner that agrees to manage lands or waters to remove threats to candidate or proposed species, with assurances that the property owner's conservation efforts will not result in future regulatory obligations that exceed those agreed to at the time the agreement is signed; it authorizes take through a section 10 permit if the species is later listed.

Candidate Species – plant and animal taxa considered for possible addition to the List of Endangered and Threatened Species. These are taxa for which the USFWS/NMFS has on file sufficient information on biological vulnerability and threat(s) to support issuance of a proposal to list, but issuance of a proposed rule is currently precluded by higher priority listing actions (61 FR 7596-7613, February 28, 1996).

Concurrence – requested written agreement of the USFWS/NMFS of the action agency's determination of effects for "*not likely to adversely affect* (NLAA)" or "*beneficial, not likely to adversely affect* (B-NLAA)" determinations of a proposed action or program on listed species and/or their habitat. Written concurrence is requested by the action agency from USFWS/NMFS in which the BA determines either NLAA or B-NLAA determinations.

Conference – a process of early interagency cooperation involving informal or formal discussions between a federal agency and the USFWS/NMFS pursuant to section 7(a)(4) of the Act regarding the likely impact of an action on proposed species or proposed critical habitat. Conferences are (1) required for proposed federal actions likely to jeopardize proposed species, or destroy or adversely modify proposed critical habitat; (2) designed to help federal agencies identify and resolve potential conflicts between an action and species conservation early in a project's planning; and (3) designed to develop recommendations to minimize or avoid adverse effects to proposed species or proposed critical habitat (50 CFR §402.02, 50 CFR §402.10) See Appendix G.

Conserve, Conserving, and Conservation – the use of methods and procedures necessary to bring and listed species to the point at which the measures provided under the ESA are no longer necessary; includes research, census, law enforcement, habitat acquisition and maintenance, propagation, live trapping and transportation, and in the extraordinary case where population pressures within a given ecosystem cannot be otherwise relived, may include regulated taking.

Conservation Measures – are actions to benefit or promote the recovery of listed species that are included by the federal agency as an integral part of the proposed action. These actions will be taken by the federal agency or applicant, and serve to minimize or compensate for the effects of the action on the species under review. These may include actions taken prior to the initiation of consultation, or actions which the federal agency or applicant have committed to complete in a BA or similar document.

Conservation Recommendations – the USFWS/NMFS' non-binding suggestions resulting from formal or informal consultation that: (1) identify discretionary measures a federal agency can take to minimize or avoid the adverse effects of a proposed action on listed or proposed species, or designated or proposed critical habitat; (2) identify studies, monitoring, or research to develop new information on listed or proposed species, or designated or proposed critical habitat; and (3) include suggestions on how an action agency can assist species conservation as part of their action and in furtherance of their authorities under section 7(a)(1) of the Act (50 CFR §402.02).

Consultation – the process required of a federal agency under section 7(a)(2) of the ESA when any activity authorized, carried out, or conducted by that agency may affect a listed species or designated critical habitat; consultation is with USFWS/NMFS.

Constituent Elements – as identified by USFWS/NMFS, the physical and biological features of designated or proposed critical habitat essential to the conservation of the species, including, but not limited to: (1) space for individual and population growth, and for normal behavior; (2) food, water, air, light, minerals, or other nutritional or physiological requirements; (3) cover or shelter; (4) sites for breeding, reproduction, rearing of offspring, germination, or seed dispersal; and (5) habitats that are protected from disturbance or are representative of the historic geographic and ecological distributions of a species (ESA §3(5)(A)(i), 50 CFR §424.12 (b)).

Critical Habitat – specific areas that have been identified and designated by USFWS/NMFS for some, but not all listed species. These legally designated areas consist of: (1) the specific areas within the geographical area occupied by the species, at the time it is listed in accordance with the provisions of section 4 of the Act, on which are found those physical or biological features (constituent elements) (a) essential to the conservation of the species and (b) which may require special management considerations or protection; and (2) specific areas outside the geographical area occupied by the species at the time it is listed in accordance with the provisions of section 4 of the Act, upon a determination by the Secretary that such areas are essential for the conservation of the species (ESA §3 (5)(a)). Designated critical habitats are described in 50 CFR §17 and 226 and published in the *Federal Register*.

Cumulative Effects –those effects of future State or private activities, <u>not</u> involving current or future federal activities, that are reasonably certain to occur within the action area of the federal action subject to consultation (50 CFR §402.02). This definition applies only to section 7 analyses and should <u>not</u> be confused with the broader use of this term in the NEPA or other environmental laws.

Delist – to remove an animal or plant species from the USFWS/NMFS' official list of Threatened and Endangered wildlife and/or plant species.

Destruction or Adverse Modification of Critical Habitat – 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 (50 CFR §402.02).

Discountable Effects – effects that are extremely unlikely to occur.

Distinct Population Segment (DPS) – "distinct population segment" is a term with specific meaning when used for listing, delisting, and reclassification purposes to describe a discrete vertebrate stock that may be added or deleted from the listing of endangered and threatened species.

Early Consultation – a preliminary consultation requested by a federal agency on behalf of a prospective permit or license applicant prior to the filing of an application for a federal permit or license (50 CFR §402.11).

Effect – see definition for Affect.

Effects of the Action – the direct and indirect effects of an action on the species or critical habitat, together with the effects of other activities that are interrelated or interdependent with that action. These effects are considered along with the environmental baseline and the predicted cumulative effects to determine the overall effects to the species for purposes of preparing a BO on the proposed action (50 CFR §202.02).

Endangered Species – any species which is in danger of extinction throughout all of a significant portion of its range (ESA §3(6)).

Endangered Species Act (ESA) – The ESA of 1973, as amended, 16 U.S.C. 1531 *et seq*.

Environmental Assessment (EA) – A concise public document, prepared in compliance with the National Environmental Policy Act (NEPA), that briefly discusses the purpose and need for an action, alternatives to such action, and which provides sufficient evidence and analysis of impacts to determine whether to prepare an Environmental Impact Statement (EIS) of finding of no significant impact (FONSI) (40 CFR 1509.0).

Environmental Baseline – the past and present impacts of all Federal, State, or private actions and other human activities in an action area, the anticipated impacts of all proposed federal actions in an action area that have already undergone formal or early section 7 consultation, and the impact of State or private actions that are contemporaneous with the consultation in process (50 CFR §402.02).

Environmental Impact Statement (EIS) – is a document required by the National Environmental Policy Act (NEPA) for certain actions "significantly affecting the quality of the human environment."

Federal Action Agency – Any department or agency of the United States proposing to authorize, fund, or carry out an action under existing authorities.

Formal Consultation – a process between the USFWS/NMFS and a federal agency or applicant that: (1) determines whether a proposed federal action is likely to jeopardize the continued existence of listed species or destroy or adversely modify designated critical habitat; (2) begins with a federal agency's written request and submittal of a complete initiation package; and (3) concludes with the issuance of a BO and the ITS therein by either USFWS/NMFS. If a proposed federal action may affect a listed species or designated critical habitat, formal consultation is required (except when the USFWS/NMFS concurs, in writing that a proposed action "is not likely to adversely affect" listed species or designated critical habitat) (50 CFR §402.02, 50 CFR §402.14).

Harm – defined by USFWS/NMFS to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns such as breeding, feeding or sheltering [see *Take* and *Harass*].

Harass – defined by USFWS/NMFS as actions that create the likelihood of injury to listed species to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding or sheltering (50 CFR §17.3) [see *Take* and *Harm*].

Incidental Take – take of listed fish or wildlife species that results from, but is not the purpose of, carrying out an otherwise lawful activity conducted by a federal agency or applicant (50 CFR §402.02).

Incidental Take Statement (ITS) – when a proposed federal action is found to be consistent with section 7(a)(2) of the ESA and that action may incidentally take individuals of listed species, USFWS/NMFS will issue an incidental take statement specifying the impact of any incidental taking of endangered or threatened species.

Indirect Effects – those effects that are caused by or will result from the proposed action and are later in time, but are still reasonably certain to occur (50 CFR §402.02).

Informal Consultation – an optional process that includes all discussions and correspondence between the USFWS/NMFS and a federal agency (or designated non- federal representative), prior to formal consultation, to determine whether a proposed federal action may affect listed species or critical habitat. If a proposed federal action may affect a listed species or designated critical habitat, formal consultation is required (except when the USFWS/NMFS concurs, in writing, that a proposed action "is not likely to adversely affect" listed species or designated critical habitat) (50 CFR §402.02, 50 CFR §402.13).

Insignificant Effects – relate to the size of the impact which are "unmeasurable" and should never reach the scale or level where "take" occurs.

Interdependent Actions – actions having no independent utility apart from the proposed action (50 CFR §402.02).

Jeopardize the Continued Existence of a Species – to engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of *both* the survival *and* recovery of listed species in the wild by reducing the reproduction, numbers, or distribution of that species (50 CFR §402.02).

Likely to Adversely Affect (LAA) – the appropriate finding by the action agency and documented in a BA that adverse effects to listed species or designated critical habitat may occur as a direct or indirect result of the proposed action or its interrelated or interdependent action, and those effects are not: discountable, insignificant, or beneficial (see definition of "***may affect, not likely to adversely affect" determination*** [NLAA]). In the event the overall effect of the proposed action is beneficial to the listed species, but it may also cause some minor adverse effects, then the appropriate determination is "***may affect, not likely to adversely affect***" (NLAA). If incidental take is anticipated to occur as a result of the proposed action, a "***may affect, likely to adversely affect" determination*** (LAA) should be made. A "***may affect, likely to adversely affect" determination*** (LAA) requires formal section 7 consultation with USFWS/NMFS.

Likely to Jeopardize Proposed Species/Adversely Modify Proposed Critical Habitat – the appropriate conclusion when the action agency or the USFWS/NMFS identify situations where the proposed action is likely to jeopardize the proposed species or adversely modify the proposed critical habitat. If this conclusion is reached, conference is required.

Listed Species – any species of fish, wildlife or plant which has been determined to be endangered or threatened under section 4 of the Act (50 CFR §402.02).

Major Construction Activity – a construction project (or other undertaking having similar physical effects) which is a major federal action significantly affecting the quality of the human environment as referred to in the NEPA document (42 U.S.C. 4332(2); 50 CFR §402.02).

May Affect – the appropriate conclusion when a proposed action may pose any effects on listed species or designated critical habitat. When the federal agency proposing the action determines that a "***may affect***" situation exists, then they must either initiate formal consultation or seek written concurrence from USFWS/NMFS that the action is "***not likely to adversely affect***" listed species.

Minor Change Rule – when preparing incidental take statements (ITS), the USFWS/NMFS must specify reasonable and prudent measures (RPM) and their implementing terms and conditions to minimize the impacts of incidental take that do not alter the basic design, location, scope, duration, or timing of the action, and that involve only minor changes (50 CFR §402.14(i)(2)).

National Environmental Policy Act of 1969 (NEPA) – requires all agencies, including the USFWS and NMFS, to examine the environmental impacts of their actions, incorporate environmental information, and utilize public participation in the planning and implementation of all actions. Federal agencies must integrate NEPA with other planning requirements, and prepare appropriate NEPA documents to facilitate better environmental decision making. NEPA requires federal agencies to review and comment on federal agency environmental plans/documents when the agency has jurisdiction by law or special expertise with respect to any environmental impacts involved (42 U.S.C. 4321-4327, 40 CFR 1500-1508).

National Marine Fisheries Service (NMFS) – also known as NOAA-Fisheries; an agency within the Department of Commerce.

No Effect (NE) – the appropriate conclusion when the action agency determines its proposed action will not affect a listed species or designated critical habitat. There must be NO minor, major, or negative (adverse) or wholly beneficial effects to species, habitat or critical habitat (if designated) what-so-ever.

Not Likely to Adversely Affect (NLAA) – the appropriate conclusion when effects on listed species or designated critical habitat are expected to be discountable, insignificant, or completely/wholly beneficial. Based on best judgment, a person would not (1) be able to meaningfully measure, detect, or evaluate insignificant effects; or (2) expect discountable effects to occur.

Preliminary BO or BiOp – issued by the USFWS/NMFS as a result of early consultation (50 CFR §402.02).

Programmatic Consultation – consultation addressing an agency's multiple actions on a program, regional, etc.

Proposed Action – a plan that has a goal containing sufficient details about the intended actions to be taken or that will result to allow alternatives to be developed and its environmental impacts analyzed (40 CFR 1508.23).

Proposed Critical Habitat – habitat proposed and published in the *Federal Register* to be designated as critical habitat, or habitat proposed to be added to an existing critical habitat designation, under section 4 of the Act for any listed or proposed species (50 CFR §402.02).

Reasonable and Prudent Alternatives (RPA) – recommended alternative actions identified during formal consultation that can be implemented in a manner consistent with the intended purpose of the action, that can be implemented consistent with the scope of the federal agency's legal authority and jurisdiction, that are economically and technologically feasible, and that the Director of the USFWS/NMFS believes would avoid the likelihood of jeopardizing the continued existence of listed species or the destruction or adverse modification of designated critical habitat (50 CFR §402.02).

Reasonable and Prudent Measures (RPM) – actions the Director of the USFWS/NMFS believes necessary or appropriate to minimize the impacts (i.e., amount or extent, or incidental take) (50 CFR §402.02).

Recovery – improvement in the status of listed species to the point at which listing is no longer appropriate under

the criteria set out in section 4(a)(1) of the Act (50 CFR §402.02). Also refer to *Conserve, Conserving, and Conservation* definition.

Recovery Unit – management subsets of the listed species that are created to establish recovery goals or carry out management actions. To lessen confusion in the context of section 7 and other ESA activities, a subset of an animal or plant species that needs to be identified for recovery management purposes will be called a "recovery unit" instead of a "population."

Section 4 – the section of the ESA of 1973, as amended, outlining procedures and criteria for: (1) identifying and listing threatened and endangered species; (2) identifying, designating, and revising critical habitat; (3) developing and revising recovery plans; and (4) monitoring species removed from the list of threatened or endangered species (ESA §4).

Section 7 – the section of the ESA of 1973, as amended, outlining procedures for interagency cooperation to conserve federally listed species and designated critical habitats. Section 7(a)(1) requires federal agencies to use their authorities to further the conservation (recovery) of listed species. Section 7(a)(2) requires federal agencies to consult with the USFWS/NMFS to ensure that they are not undertaking, funding, permitting, or authorizing actions likely to jeopardize the continued existence of listed species or destroy or adversely modify designated critical habitat. Other paragraphs of this section establish the requirement to conduct conferences on proposed species; allow applicants to initiate early consultation, and require USFWS/NMFS to prepare BOs and issue ITS. Section 7 also establishes procedures for seeking exemptions from the requirements of section 7(a)(2) from the Endangered Species Committee (ESA §7).

Section 7 Consultation – the various section 7 processes, including both consultation and conference if proposed species are involved (50 CFR §402.02). See definitions for formal, informal, and conference consultations.

Section 9 – taking of endangered species of fish and wildlife. Additional prohibitions include: (1) import or export of endangered species or products made from endangered species; (2) interstate or foreign commerce in listed species or their products; and (3) possession of unlawfully taken endangered species (ESA §9). Also see definition of "take".

Section 10 – contains exceptions to section 9 prohibitions. The exceptions most relevant to section 7 consultations are takings allowed by two kinds of permits issued by the USFWS/NMFS: (1) scientific take permits and (2) incidental take permits. USFWS/NMFS can issue permits to "take" listed species for scientific purposes, or to enhance the propagation or survival of listed species. USFWS (or NMFS) can also issue permits to "take listed species incidental to otherwise legal activity" (ESA §10).

Species – includes any subspecies of fish or wildlife or plants, and any distinct population segment of any species of vertebrate fish or wildlife which interbreeds when mature (ESA §3(16)).

Take – to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in any such conduct (ESA §3(19) [also see definition of "harm and harass"].

Threatened Species – any species which is likely to become an endangered species within the foreseeable future throughout all of a significant portion of its range (ESA §3(20)).

Viable Populations – a population that has the estimated numbers and distribution of reproductive individuals to ensure the continued existence of the species throughout its existing range (or range required to meet recovery for listed species) within the planning area.

Warranted but Precluded – a 12-month petition finding by the USFWS (or NMFS) that a petitioned action should be undertaken, but cannot because the resources necessary to do so are being devoted to actions with higher priority.

Appendix B – Section 7 Effects Determination Reference

Adapted from the Endangered Species Act Section 7 Effects Determination Guidance National Marine Fisheries Service Southeast Regional Office, Protected Resources Division (NMFS 2014).

The purpose of this document is to provide general guidance on considerations for making effects determinations for ESA section 7 consultations.

Effect Determination Definitions

Action agencies (NPS), to fulfill their ESA section 7 duties for an action they propose to implement, fund or authorize, must make one of the following effect determinations with respect to federally listed threatened or endangered species or designated critical habitat:

1. ***"No effect"***
2. ***"May affect, not likely to adversely affect"***
3. ***"May affect, likely to adversely affect"***

These effects determinations must be based on all direct and indirect effects of the agency action, as well as the effects of activities that are interrelated to or interdependent with the federal agency's proposed action.

No Effect

"*No effect*" (NE) means ESA-listed species or designated critical habitat will not be affected, directly or indirectly. Generally, this means no ESA-listed species or critical habitat will be exposed to any potentially harmful/beneficial elements of the action. The USFWS/NMFS does not provide concurrence on an action agency's "***no effect***" determination. It is prudent to document in the action records the rationale behind your determination as it will act as the official ESA consultation agency's determination. If there are no plausible routes of effect to listed species or critical habitat, "***no effect***" may be the proper conclusion.

EXAMPLES OF A "NO EFFECT" CONCLUSION TO SPECIES

- The species doesn't occur at all in the action area, meaning not just the immediate action area but from all areas where the action will have direct or indirect environmental effects to species and/or habitats.

- The species occurs in the action area seasonally, and the action will be timed to avoid their presence. For example, an action will be completed in the summertime and has no lasting environmental effects will not affect a particular species, which would only potentially occur there from November – April.

- The species occurs in the action area and may be present at the time of the action, but there are no plausible (i.e., no credible) routes of effects (beneficial or adverse) to the species. A route of effect could be implausible if it would require a series of exceedingly rare events to occur in a particular sequence, in order to impact individuals of a listed species or habitats. A single event could also be in this category if the route of effect is so unrealistic that its occurrence would be implausible.

EXAMPLES OF A "NO EFFECT" CONCLUSION TO DESIGNATED CRITICAL HABITAT

- The action and its direct and indirect effects don't occur in any designated critical habitat area.

- The action would not affect any individual PCEs of designated critical habitat in the short or long-term.

- The action occurs inside designated critical habitat, but no "essential features" or "primary constituent elements (PCE) of critical habitat are present or will be affected.

- The action occurs inside designated critical habitat, and the essential features are present, but the action presents no plausible route of effect (beneficial or adverse) to the features. For example, the essential feature of unobstructed migratory pathways for sturgeon through a waterbody would not be affected by a proposed seawall replacement project that is parallel to the shoreline. Or, the essential feature of settlement substrate for corals would not be affected by a project that only involves surface activities with no plausible routes of effects to the sea floor.

Important exception: "Essential features" or PCEs do not necessarily have to be present at the time of the action to be affected. Some essential features are seasonal or temporary (e.g., mobile prey) or are the product of certain natural processes. An action that would interrupt the natural development or occurrence of the essential feature is still adversely affecting that feature, even if the feature is not present. An example might be a fish that requires spawning habitat of a certain water depth and an action with water control features that is preventing those depths from periodically occurring, as they would from natural water level variations.

Important exception: An adverse effect to (or prevention of) the conservation function the features provide to the species is an adverse effect on the critical habitat, even if the feature itself is not directly affected. For example, a project that creates a barrier that prevents species from accessing areas of critical habitat containing the features may eliminate the conservation value of those features to the species by preventing access.

While this example considers effects to the PCEs of critical habitat, effects to habitat in general could also result in harm to the species, if the habitat impacts result in actual injury or death of individuals of a listed species.

May Effect, Not Likely to Adversely Affect

"May affect, but not likely to adversely affect"* (NLAA)** means that all effects are **beneficial**, **insignificant**, or **discountable**. These conclusions are not made on the "net" effects of the action. ANY adverse impact to an individual ESA-listed species or critical habitat, whether interim or short- term, regardless of any short or long-term beneficial conservation measures or mitigation activities, requires section 7 consultation. Action agencies must request and receive written concurrence from USFWS/NMFS on a "not likely to adversely affect***" determination. The request for concurrence should clearly identify the different potential effects that the action may pose to listed species or critical habitat. **You must explain why the effect is either discountable or insignificant.**

1. **Beneficial effects** have an immediate positive effect without ANY adverse effects to the species or habitat. Beneficial effects are usually discussed when the action has a clear link to the listed species or its specific habitat needs and consultation is required because the species may be affected.

EXAMPLE OF "BENEFICIAL EFFECTS" TO SPECIES

- Removing a man-made or a natural barrier that once blocked upstream spawning habitat, during a time of year when the species are absent.

2. **Insignificant effects** relate to the size or severity of the impact and include those effects that are undetectable, not measurable, or so minor that they cannot be meaningfully evaluated. Insignificant is the appropriate effect conclusion when plausible effects are going to happen, but will not rise to the level of constituting an adverse effect. That means the ESA-listed species may be expected to be affected, but not harmed or harassed (see definitions below).

EXAMPLE OF "INSIGNIFICANT EFFECTS" TO SPECIES

- A grizzly bear avoids an area for less than a day because of construction, and thereby avoids being injured directly by project equipment. However, bears are predicted to be affected due to their avoidance of the area during this short period of time. If the effect of the avoidance does not rise to the level of disturbance, and has no realistic potential to lead to harm or harassment of the animal, the effect is insignificant.

3. **Discountable effects** are those that are extremely unlikely to occur. For an effect to be discountable, there must be a plausible adverse effect (i.e., a credible effect that could result from the action and that would be an adverse effect if it did impact a listed species), but it is very unlikely to occur.

EXAMPLE OF "DISCOUNTABLE EFFECTS" TO SPECIES

- The risk of slow-moving vehicles striking a Mexican spotted owl in a new parking lot is extremely unlikely to occur.

Note: Keep in mind that the chance of adverse effects increases with the frequency and duration of the action. Discountable may be the proper determination if the action is one-time or infrequent; it may not be if the action is frequent or continuous.

Note: Whether an effect is discountable is primarily a question of risk. Including well thought-out risk management measures to avoid injuring listed species can be an effective way to ensure that an effect is discountable.

Critical habitat: First assess the potential effects to each of the essential features and determine whether the effects are **beneficial**, **discountable**, or **insignificant**. In the context of critical habitat, "**take**" is not an issue, so we define insignificant effects slightly differently. Insignificant effects are when there is an actual possibility of an effect to the essential feature and the effect is temporary, minor, or both, so that there is no discernible impact on the conservation function of that essential feature in that designated critical habitat unit.

EXAMPLE OF "INSIGNIFICANT AND DISCOUNTABLE EFFECTS" TO CRITICAL HABITAT

- The water and sediment quality essential feature of a listed fish's designated critical habitat may be affected by a pile-installation project that temporarily increases turbidity. However, we would anticipate those effects to be temporary and minimal because suspended particles will settle out within a short time frame (one hour) without measurable effects on water quality.

May Effect, Likely to Adversely Affect

"***May affect, is likely to adversely affect***" **(LAA)** means that one or more individuals of a listed species or one or more essential features (PCEs) of critical habitats are likely to be exposed to actions and will be adversely affected. These effects are not insignificant or discountable. Adverse effects may or may not result in "**incidental take**" (see definition of "incidental take" below).

- If you conclude in the BA that a listed species or its critical habitat is "***likely to be adversely affected***", formal consultation will be required (see Guidebook for more information). If the USFWS/NMFS conclude in their biological opinion (BO) that the action is "***not likely to jeopardize the continued existence of any listed species***" or "***will not destroy or adversely modify critical*** habitat", section 7 consultation is complete with the submittal of a BO from the USFWS/NMFS back to the action agency.

- If the USFWS/NMFS conclude in their BO that the action is "***likely to jeopardize the continued existence of any listed specie***s" or may "***destroy or adversely modify critical habitat,***" the action may not go forward unless the USFWS/NMFS provides the action agency a "reasonable and prudent alternative (RPA)" that would avoid jeopardy and/or destruction or adverse modification. (Note: "***Adversely affect***" and "***destroy or adversely modify***" critical habitat are two separate and different standards, but they are sometimes confused because they sound similar.)

Definition of Take

"***Take***" is defined as "*to harass, harm, pursue, hunt, shoot, wound, trap, capture, collect or attempt to engage in any such conduct*." "***Harm***" includes "*any act that actually kills or injures fish or wildlife*." This includes "*habitat modification or degradation that results in death or injury to listed species by significantly impairing essential behavioral patterns such as breeding, spawning, rearing, migrating, feeding, or sheltering*." The USFWS/NMFS defines "***harass***" as "*an intentional or negligent act which creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns….*" In general, "*take*" is a violation of ESA, and there are no provisions for this prohibition of intentional take of a listed species.

"***Incidental take"*** are "*takings that result from, but are not the purpose of carrying out an otherwise lawful activity by a federal agency or applicant*" (50 CFR 402.02). The section 7 consultation process provides a way to exempt federal activities from the ESA's incidental take prohibitions, if the take is incidental to an otherwise lawful activity and it doesn't jeopardize the species. However, an exemption must be granted by USFWS/NMFS in the form of an "**incidental take statement** (ITS)," identifying "**reasonable and prudent measures** (RPM)" which are to be implemented with "**terms and conditions** (T&C)" to minimize such take. Take and the incidental take prohibition only apply to listed wildlife species – not plants or critical habitat.

Questions to Consider for Your Effects Analysis

To determine the effect of your action on an ESA-listed species and/or critical habitat, think through, and document your responses in your BA:

1. ***What is the action area (the area where effects from the action can be found)?***

The action area is defined as "***all areas to be affected directly or indirectly by the federal action and not merely the immediate area involved in the action.***" This area will experience measurable or detectable changes to the **physical, biological, and chemical components of LAND, AIR, and WATER,** or other measurable factors that result from the full scope of the proposed action and all interrelated or interdependent actions.

- **Interrelated actions** are those that are part of a larger action and depend on the larger action for their justification. An example of this would be if a request is made for consultation for the construction of a new marina. New vessel traffic originating from the marina is interrelated to the proposed marina development and must be considered as part of the action.

- **Interdependent actions** are those that have no independent utility apart from the action under consideration. An example of this would be constructing the pilings for a dock or bridge and then coming back for another consultation for the decking of the bridge or dock.

To determine the action area, **DECONSTRUCT** the action or break the action down into its individual components including pre-construction preparation (e.g., vegetation clearing, construction actions such as the installation of cofferdams, placement of pipelines, intake structures, turbidity areas, dredging, dredge spoil storage areas, borrow areas, operations, maintenance, etc.), and post-construction site cleanup. Determine the stressors that are expected to result from each action component. For example, sound levels from machinery may be detectable hundreds or thousands of feet, or even miles away. Consider this when delineating your action area.

Remember, in addition to direct effects of the action, you must consider effects that may occur later in time and the effects of an interdependent/interrelated activity, regardless of whether they are within your agency's legal control or jurisdiction. For example: depending on the agency's action under consideration, fishing activities from a fishing pier, or marina usage/vessel operations after construction of a new or expanded marina, or changes in water quality/quantity after constructing an in-stream culvert, can be either indirect effects or interdependent/interrelated effects to the federal agency's proposed action.

2. ***Once you have determined the action area, what species or critical habitats are found in the action area?***

Is the action area located behind some kind of barrier that could be man-made or ecologically based (e.g., bridge, dam, salinity) that would prevent the species from being there? Are the species likely to be absent at the time of the action? For example, if your action is located in a bay that is used by Gulf sturgeon for feeding but the action will be completed during the summer when sturgeon have migrated up river, then…. In this case you must also consider whether the action results in impacts to the habitat that could affect the species from using this area in the future.

3. ***After identifying which ESA-listed species or critical habitat may be present in or near the action area, determine how they may be affected by the action?***

To conduct the analysis of your action's effects, consider these sorts of questions when determining potential routes of effects to ESA-listed species or habitat:

- *What are the specific stressors (e.g., construction, dredging, blasting, vessel traffic, fishing activities, pile driving, noise, changes in water flow) that might impact each species or critical habitat?*
- *What are the life history patterns/behavior of the ESA-listed species that could be affected in relationship to the location of your action and timing of work associated with your action?*
- *Where, when, how frequently, for how long, and at what intensity will the stressors occur, and how will it impact the species or critical habitat?*
- *Will the action's effects be permanent?*
- *Is there a way to minimize/avoid exposure?* For example*: Can the work be carried out at low tide, behind a construction barrier, or when the species is not seasonally present? Can noise impacts be minimized/avoided by use of sound dampening equipment?*

- *Will the habitat in the action area or affected outside the action area still be beneficial to the species or converted to another type of habitat as a result of the action?* For example*: Will mangroves (a habitat feature important to sawfish) be removed and replaced with a seawall?*
- *Are critical habitat essential features found in the action area?*

Once you've thought through these questions, you should be able to make the appropriate effects determination and transmit your rationale to the USFWS/NMFS.

Be sure to document the above considerations in your BA so the USFWS/NMFS knows what you considered and how that may have affected your final ESA effect determination.

Appendix C – ESA FAQs

(Source: http://www.fws.gov/endangered/what-we-do/faq.html)

What activities apply to section 7?

Under provisions of section 7(a)(2) of the ESA, a federal action agency that "*carries out, permits, licenses, funds, or otherwise authorizes activities (federal nexus) that may affect a listed species or designated critical habitat must consult with the USFWS/NMFS to ensure that its actions are not likely to jeopardize the continued existence of any listed species, or adversely modify or destroy designated critical habitat*".

What steps are involved in a section 7 consultation?

The federal action agency contacts the appropriate USFWS/NMFS office to determine if listed species are present within the action area. This can be done through IPaC. The USFWS/NMFS responds to the request by providing a list of species that are known to occur or may occur in the vicinity. If the USFWS/NMFS provides a negative response, no further consultation is required unless the scope or nature of the action is altered or new information indicates that listed species may be affected.

If listed species are present, the action agency must determine if the action may affect them. A "***may affect***" determination includes those actions that are "***not likely to adversely affect***" as well as "***likely to adversely affect"*** listed species and/or designated critical habitat. If the action agency determines that the action is "***not likely to adversely affect***" listed species/critical habitat (e.g., the effects are **beneficial, insignificant**, or **discountable**), and the USFWS/NMFS agrees with that determination, they will provide concurrence in writing and no further consultation is required.

If the federal agency determines that the action is "***likely to adversely affect***" listed species or designated critical habitat, then it must request the initiation of formal consultation. This request is made in writing to the USFWS/NMFS in the form of a cover letter and includes a complete initiation package (a BA or NEPA document with analysis and effect determinations). Up to that point, interactions have been conducted as **informal consultation**; however, once a request for formal consultation is received, the process becomes formal, and specific timeframes come into play. **Formal consultation** is initiated on the date the package is received, unless the initiation package is incomplete. If the package is incomplete, the USFWS/NMFS notifies the action agency of the deficiencies. If a complete package is submitted, the USFWS/NMFS should provide written acknowledgment of the request within **30** working days. This written acknowledgment is not mandatory, but is encouraged so that there is documentation in the administrative record that formal consultation has been initiated.

From the date that formal consultation is initiated, the USFWS/NMFS is allowed **90 days** to consult with the action agency and applicant (if any) and 45 days to prepare and submit a BO; thus, a BO is submitted to the federal action agency within **135 days** of initiating formal consultation. The **90-day** consultation period can be extended by mutual agreement of the action agency and the USFWS/NMFS; however, if an applicant is involved the consultation period cannot be extended more than **60 days** without the consent of the applicant. The extension should not be indefinite, and a schedule for completion should be specified.

What are the potential outcomes of a biological opinion?

The BO is the document that states the opinion of the USFWS/NMFS as to whether or not the federal action is "***likely to jeopardize the continued existence of listed species***" or result in the "***destruction or adverse modification of critical habitat.***"

What section 7 responsibilities does a federal action agency bear if it is considering an action that may affect species proposed for listing under ESA?

Section 7(a)(4) requires federal agencies to confer with the USFWS/NMFS on any agency action that is "***likely to jeopardize the continued existence of any species proposed for listing***" or result in the "***adverse modification of critical habitat proposed to be designated***". A **conference** may involve informal discussions between the USFWS/NMFS, the action agency, and the applicant (if applicable). Following informal conference, the USFWS/NMFS issue a **conference report** containing recommendations for reducing adverse effects. These recommendations are **discretionary**, because an agency is not prohibited from jeopardizing the continued existence of a proposed species or from adversely modifying proposed critical habitat. However, as soon as a listing action is finalized, the prohibition against jeopardy or adverse modification applies, regardless of the stage of the action. See Appendix G of this Guidebook for more information.

What's the difference between informal and formal consultation?

Informal consultation is an optional process that is designed to help the applicant and the action agency determine whether formal consultation is needed. It includes all discussions, correspondence, etc., between the USFWS/NMFS, the action agency, and the applicant, and has no specified timeframe for completion. Federal agencies and the designated non-federal entity may use this period to work with the USFWS/NMFS on the action's design and conservation actions that would remove all adverse effects and avoid the need for formal consultation. **Formal consultation** is a mandatory process for proposed action that may adversely affect listed species, is initiated in writing by the federal agency, and concludes with the issuance of a BO by the USFWS/NMFS. The USFWS/NMFS strongly encourages the use of informal consultation so that actions can be designed with minimal impact to listed species, and can possibly result in a determination of no adverse effect, eliminating the need for formal consultation.

Must a federal action agency consult with the USFWS/NMFS (i.e., receive concurrence) if it determines: a) no effect; b) beneficial effect; or c) not likely to adversely affect?

The federal action agency is not required to consult with the USFWS/NMFS if it determines an action will not affect listed species or critical habitat. A federal agency is required to consult if an action "***may affect***" listed species or designated critical habitat, even if the effects are expected to be beneficial. In many cases, actions with overall beneficial effects still include some aspects that will adversely affect individuals of listed species and such adverse effects require **formal consultation**. If an agency determines that its action is "***not likely to adversely affect***" listed species or critical habitat, it can request the concurrence of the USFWS with this determination. If the USFWS/NMFS agrees, consultation is concluded with a **concurrence letter**.

What's the difference between an Environmental Assessment and a Biological Assessment, and can I incorporate one into the other?

A BA must be prepared if listed species or critical habitat may be present in an area to be impacted by an action with a federal nexus (receiving federal funding, permit, authorization, or carried out by a federal agency. Environmental Assessments (EA) are prepared in fulfillment of NEPA and assess social, cultural, and economic, effects in addition to biological effects. A BA can be incorporated within an EA; however, a separate **"stand alone" BA is preferred** and often **advised by the USFWS/NMFS to expedite the section 7 process**. The BA can be included into the NEPA document as an appendix and portions of the BA inserted into the NEPA document as appropriate.

Does formal consultation have to be completed before an EA or EIS is written?

The action agency should initiate technical assistance and/or informal consultation with USFWS/NMFS early on in the development of an action – at a minimum, prior to public scoping required for major construction activities as defined by NEPA. A BA may be completed prior to the release of the Draft Environmental Impact Statement (DEIS) or the EA. Formal consultation should be initiated prior to or at the time of release of the DEIS or EA. At the time the Final EIS is issued, section 7 consultation should be completed; however, it is not mandatory. Section 7 consultation must be completed however, prior to signing a Record of Decision (ROD) for an EIS or a Finding of No Significant Impact (FONSI) for an EA. The ROD (for EIS) or FONSI (for EA) should address the results of section 7 consultation.

Who makes the call on adverse effect?

The federal action agency makes the determination of whether their proposed action may affect a listed species and/or designated critical habitat, which includes a determination of whether the action is likely to result in adverse effects. Ideally, the USFWS/NMFS and the federal action agency, via informal consultation, determine if adverse effects are likely and work together to remove those effects if possible.

What's the difference between reasonable and prudent alternatives and reasonable and prudent measures?

Reasonable and prudent alternatives (RPA) are alternative methods of project implementation, offered in a BO reaching a "***jeopardy***" or "***destroy or adverse modification***" conclusion that would avoid the likelihood of "***jeopardy***" to the species or "***adverse modification***" of critical habitat. **Reasonable and prudent measures (RPM)** are actions necessary to minimize the impacts of incidental take that is anticipated to result from implementing an action that the USFWS/NMFS regarded as not likely to "***jeopardize***" the species or "***destroy or adversely modify***" designated critical habitat.

Does a federal action agency have to adhere to the reasonable and prudent alternatives or the reasonable and prudent measures, and what are the consequences if it doesn't?

In both instances, the action agency determines whether and how to proceed with its proposed action. If a jeopardy BO containing **RPA**(s) is issued, the action agency may: 1) adopt the reasonable and prudent alternative(s); 2) not undertake the action (e.g., deny the permit); 3) request an exemption from section 7(a)(2); 4) reinitiate consultation based on modification of the action or development of a reasonable and prudent alternative not previously considered; or 5) proceed with the action if it believes, upon review of the BO, that the action satisfies section 7(a)(2). Regardless of what action the agency chooses, the agency must notify the USFWS/NMFS of its final decision.

RPMs and the implementing **terms and conditions (T&C)** are actions intended to minimize the impact of **incidental take**. Those conditions are conveyed to the action agency in the form of an **incidental take statement (ITS),** are non-discretionary, and must be undertaken by the agency so that they become binding conditions of any grant or permit issued to an applicant for the exemption in section 7(o)(2) to apply. If the agency refuses to do so, then it and the applicant must be informed that the protective provision of the **ITS** may not apply, and both entities could be held responsible for any take that occurs as a result of the action.

Can formal consultation be stopped once it's started? Who can do it and under what conditions?

If the action under consideration is no longer viable (e.g., funding has been withdrawn, an applicant has decided to withdraw the permit application, or congressionally approved action has been deauthorized, etc.), then the action agency can withdraw its request for formal consultation. The agency should notify the USFWS/NMFS in writing that consultation should be stopped, and briefly describe why the action is no longer being considered by the agency.

What constitutes an irreversible or irretrievable commitment of resources?

Any action that has the effect of preventing the formulation or implementation of any **RPAs** needed to avoid jeopardizing the species or adversely modifying critical habitat.

Who reinitiates formal consultation?

Reinitiation of formal consultation must be requested by the federal action agency or by the USFWS/NMFS if: a) the amount or **extent of take** specified in the **ITS** is **exceeded**; b) **new information** reveals effects of the action that may affect listed species or critical habitat in a manner or to an **extent not previously considered**; c) the identified action is subsequently **modified** in a manner or to an extent that causes an effect to the listed species or critical habitat not previously considered in the BO; or, d) a **new species is listed or critical habitat designated** that may be affected by the identified action.

Does an agency have to consult on a species that is protected due to similarity of appearance?

Regulations at 50 CFR §17.42 include special provisions for species protected due to similarity of appearance. Some of these species have rules regarding incidental take (e.g., some rules specify that incidental take is not prohibited for certain species, while other rules specify that incidental take is prohibited). Federal action agencies are not responsible for fulfilling the requirements of section 7 with respect to actions that may affect species protected due to similarity of appearance; however, if their actions may result in the take of such species and no special rule addressing this circumstance exists, they must apply for a take permit in accordance with regulations at 50 CFR §17.52.

What is the action area?

The action area is defined by regulation as all areas to be affected directly or indirectly by the federal action and not merely the immediate area involved in the action (50 CFR §402.02). The standard to be used to determine this area is where **physical, chemical, and biological features of land, air,** or **water** may be **directly** or **indirectly** affected by an action. This analysis is not limited to the "footprint" of the action nor is it limited by the federal agency's authority. Rather, it is a biological determination of the reach of the proposed action on listed species. Subsequent analyses of the environmental baseline, effects of the action, and levels of incidental take are based upon delineation of the action area. See Appendix D in this Guidebook for more information as to determining the action area.

The documentation used by a federal action agency to initiate consultation should contain a description of the action area as defined in the USFWS/NMFS' regulations and explained in the Endangered Species Consultation Handbook (USFWS/NMFS 1998). If the USFWS/NMFS determine that the action area as defined by the action agency is incorrect, the USFWS/NMFS should discuss their rationale with the agency or applicant, as appropriate. Reaching agreement on the description of the action area is desirable but ultimately the USFWS/NMFS can only consult when an action area is defined properly under the regulations.

Can you have an ITS as part of a jeopardy/adverse modification Biological Opinion?

When the USFWS/NMFS determine that a proposed action "***may jeopardize the continued existence of a listed species in the wild***" or result in ***"adverse modification to designated critical habitat***" the USFWS/NMFS, with the assistance of the federal action agency, will develop **RPAs** that may be undertaken to avoid the likelihood of "***jeopardy***" or "***adverse modification***". While these **RPAs** must avoid jeopardy or adverse modification, they may still result in adverse effects to or take of listed species. RPAs address jeopardy and adverse modification only. If take will occur from the implementation of an **RPA**, an **ITS** must be developed to exempt such take from section 9 prohibitions. For additional information see pages 4-41 through 4-48 of the Endangered Species Consultation Handbook (USFWS/NMFS 1998).

How is incidental take calculated? Does it account for reduced take through Reasonable and Prudent Measures (RPMs)?

Generally incidental take is calculated and expressed as the **number of individuals reasonably likely to be taken or the extent of habitat likely to be destroyed or disturbed** in an ITS. When preparing the ITS, a specific number (for some species, expressed as an amount or extent (e.g., all turtle nests not found and moved by the approved relocation technique) or level of disturbance to habitat must be described. Take can be expressed also as a change in habitat characteristics affecting the species (e.g., for an aquatic species, changes in water temperature or chemistry, flows, or sediment loads) where data or information exists that links such changes to the take of the listed species.

In some situations, the species itself or the effect on the species may be difficult to detect. However, some detectable measure of effect should be provided. For instance, the relative occurrence of the species in the local community may be sufficiently predictable that impacts on the community (usually surrogate species in the community) serve as a measure of take (e.g., impacts to listed mussels may be measured by an index or other censusing technique that is based on surveys of non-listed mussels). In this case, the discussion determining the level at which incidental take will be exceeded (reinitiation level) describes factors for the non-listed mussels, such as an amount or extent of decrease in numbers or recruitment, or in community dynamics.

An **ITS** from the USFWS/NMFS identifies the **level of take that is anticipated from implementation of an action** as proposed. However, a **ITS** also contains **RPMs** and **T&C** that are nondiscretionary actions designed to minimize the effects of the take, and that must be implemented in order for such take to be exempt from the section 9 prohibitions. Thus, while a ITS anticipates the potentially greater amount of take that may occur without implementation of the **RPMs** and the resulting **T&Cs**, that level of take is only exempt if the terms and conditions are properly implemented. For additional information, see pages 4-43 through 4-54 of the Endangered Species Consultation Handbook (USFWS/NMFS 1998).

What constitutes the "best available scientific and commercial information?"

When conducting section 7 consultation, the USFWS/NMFS' biologists should use the best scientific and commercial information available. This information may include the results of studies or surveys conducted by the federal action agency or the designated non-federal representative, information contained in past BOs and BAs, status reports and listing rules, including critical habitat designations, recovery plans, and published and unpublished studies done on the species. However, at times even the best information available may not provide a sufficient basis to predict effects to a species. When this is the case, the USFWS/NMFS should work with the action agency and applicant, if appropriate, to develop sufficient information to adequately evaluate the effects of the proposed action and its potential to jeopardize the species or result in adverse modification of designated critical habitat. If it is not possible to develop such information, the USFWS/NMFS should use the information that is available and provide the benefit of the doubt to the species when evaluating the potential for jeopardy and adverse modification.

Appendix D – Defining the Action Area

Adapted from *Section 7 Topic Sheet – Action Area*, developed by Doug Laye, USFWS Region 6 (February 2015)

Defining the action area for use in a BA is an important early step in development of a BA and the section 7 consultation process, because it informs and constrains several aspects of the analysis and the consultation. However, there can be some confusion over how to define it. Confusion usually surfaces when the definition of effects of the action (extent of the action's effects to listed species or critical habitat) is used (inappropriately) to influence the description of the action area (area affected by the action). Below we examine the logical and appropriate relationship between the two definitions and their place in consultation.

Origination of Action Area Term

The first reference to the concept of action area is found in 7(a)(4)(c) of the Act:

> *(c) BIOLOGICAL ASSESSMENT.- (1) To facilitate compliance with the requirements of subsection (a)(2) each federal agency shall, with respect to any agency action of such agency for which no contract for construction has been entered into and for which no construction has begun on the date of enactment of the Endangered Species Act Amendments of 1978, request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action*" [Emphasis added].

A process to comply with the Act's requirement was described and codified in the regulations at 402.12(2)(c):

> "*Request for information. The federal agency or the designated non-federal representative shall convey to the Director either (1) a written request for a list of any listed or proposed species or designated or proposed critical habitat that may be present in the action area; or (2) a written notification of the species and critical habitat that are being included in the biological assessment.*" [Emphasis added.]

To accomplish this, the action agency needs to provide a description of the action area, so that the USFWS can produce a species list for the action agency to consider for its BA. [Note: Non-regulatory terms such as recovery units, management units, action area, area of interest, analysis area, planning area, etc. are not substitutes for defining the action area.] **Action area** is defined as:

> "*…all areas to be affected directly or indirectly by the federal action and not merely the immediate area involved in the action [Emphasis added]"* 50 CFR 402.02.

What is the nature of an agency's "action" that they would use to describe the area impacted? Action is defined in the regulations as:

> "*…all activities or programs of any kind authorized, funded, or carried out, in whole or in part, by federal agencies in the United States or upon the high seas. Examples include, but are not limited to: (a) actions intended to conserve listed species or their habitat; (b) the promulgation of regulations;(c) the granting of licenses, contracts, leases, easements, rights- of-way, permits, or grants-in-aid; or (d) actions directly or indirectly causing modifications to the land, water, or air."* [Emphasis added] 50 CFR 402.02.

Combining these two concepts, results in the area where the action has modified the **physical, biological and chemical components of land, air, and water**. This emphasis in describing the spatial extent of the impacts of the action, "…**directly or indirectly causing modifications to land, water, or air**", (with no mention of effects to fish or wildlife) is logical in relationship with the preceding language from the statue and regulations regarding species lists, because we need the action area defined before we develop a species list.

The definition of action area however, does contain the phrase "…*affected directly or indirectly*…" What is that referencing? In the preamble to the 1986 regulations, the USFWS noted the following about the action area definition: "*Several commenters criticized the vagueness or apparent expansiveness caused by the reference to indirect effects in this definition. The definitions of "cumulative effects" and "effects of the action" further clarify the scope of "indirect effects*." Following that direction, and turning to the definition of effects of the action (which contains several other definitions), we find a definition for indirect effects: "…*Indirect effects are those that are caused by the proposed action and are later in time, but still are reasonably certain to occur*." The regulations do not offer a definition of direct effects. Armed with this final definition, an alternate (but accurate) definition of action area is:

The area where the PHYSICAL, BIOLOGICAL and CHEMICAL COMPONENTS of LAND, AIR, and WATER will be modified or affected by an action DIRECTLY, or those occurring later in time (INDIRECTLY), and not merely the immediate area involved in the action.

Now that the area or extent that may be affected by the action has been delineated, we can now gather a list of species that may be present within that action area. The action agency can start the examination of whether listed species are present in the action area and are therefore likely to be exposed to the modifications to the land, air, or water. This list can be obtained for the action area using IPaC website (Appendix E) or by contacting the local USFWS/NMFS office. This exposure examination is consistent with the regulations for suggested contents for a BA. There we find the following point:

> "…*the results of an on-site inspection of the area affected by the action to determine if listed or proposed species are present or occur seasonally*…"[Emphasis added.] CFR 402.12(f).

After a determination of likely exposure, the species' response to that exposure is the subject of the next step.

Effects of the action to the species

The concept of effects of the action to species and designated critical habitat is found in the definition of effects of the action. This definition covers a lot of ground and holds many different definitions (including one for indirect effects, which was used in helping delineate the action area). For clarity, the definition broken into its four sentences is reproduced below:

- "*Effects of the action refers to the direct and indirect effects of an action on the species or critical habitat, together with the effects of other activities that are interrelated or interdependent with that action that will be added to the environmental baseline.*
- *The environmental baseline includes the past and present impacts of all Federal, State, or private actions and other human activities in the action area, the anticipated impacts of all proposed federal actions in the action area that have already undergone formal or early section 7 consultation, and the impact of State or private actions which are contemporaneous with the consultation in process.*
- *Indirect effects are those that are caused by the proposed action and are later in time, but still 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 independent utility apart from the action under consideration"* [Emphasis added.] 50 CFR 402.02.

From the wording it's clear that for "effects of the action," we are turning our focus to how the proposed action (interacting with the action area's baseline) will affect exposed listed species or critical habitat. Here, action area is used twice, both times as a means of indicating the spatial extent of the environmental baseline (which is established before we examine the effects to the species). Putting all of these concepts together, a logical, analytical progression is represented below.

Identify the action (PROPOSED ACTION) → Describe areas affected by the action (ACTION AREA) →Determine SPECIES (or CRITICAL HABITAT) that may be present in the action area (SPECIES LIST) →Determine the status of the listed species or critical habitat within the action area (ENVIRONMENTAL BASELINE) → Analyze the effects of the action on listed species/critical habitat by examining their response from exposure to the environmental changes in the action area caused by the action (EFFECTS OF THE ACTION)

Summary Points

- Since the action area represents the area containing all the modifications to the **physical, biological and chemical components of land, air, and water**, it will contain all points of the species exposure to changes in the action area. But the action area does not always contain the full and final expression of the biological response and effects resulting from that exposure. The action area boundary does not grow or shrink based on the total biological effects to listed species.[8]

- The words "direct and indirect" are used to inform both definitions of action area and effects of the action, but within each definition's independent contexts. It is meant to ensure that effects **"later in time, but still reasonably certain to occur"** are not overlooked.

- If during consultation additional areas are found that will be subject to **land, air, and water** modifications (from the action - usually from forgotten indirect effects), it is appropriate to adjust the action area boundary and examine any new exposure of the listed species to those environmental modifications and the species response and effects from that exposure.

- Conflating or blending the separate definitions of "**action area**" and "**effects of the action**" will lead to a confusing and inconsistent description of the action area, and can result in incorrectly establishing the baseline and assessing cumulative effects.

- Recovery units, management units, population segments, etc. may be useful and appropriate for analysis of "***jeopardy***" of a listed species, or "***destruction or adverse modification***" of designated critical habitat, but are not substitutes for thoughtfully defining the action area consistent with the Act and regulations.

[8] Though caused by the action, biological effects of the action on the species may in some cases be realized/expressed far beyond the action area (e.g., reduction in breeding success in remote breeding grounds, reduction in survival on wintering areas, migration corridors, etc.). And though we would adequately describe all those biological ramifications in our analysis, the action area does not expand to encircle those areas.

Important Points in Determining the Action Area

(Adapted from WDOT – BA Manual)

This section provides guidance for defining the limits of the action area. BA excerpts are provided to illustrate how the project biologist can effectively define the limits of the action area. The following steps should be used to define the action area. Each step will be discussed in greater detail below:

1. identify all impacts from the proposed management action;
2. determine the geographic extent of each type of impact to ***land, air***, and ***water*** in order to define a zone or area of impacts for each;
3. overlay the multiple zones or areas of project impacts in combination to establish the geographic extent of all project impacts; and
4. define the action area based upon the farthest or largest geographic extent of potential project impacts.

Important considerations regarding action areas.

- The action area is rarely if ever, restricted to the **project's footprint**. The effects from an action almost always extend well beyond the bounds of ground disturbance or the area an activity takes place.

- There is only **one action area** defined for a project, not separate terrestrial and aquatic action areas. Use the farthest reaching effect in determining the outer bounds of the action area.

- The action area is not determined by the extent of impacts on species and habitat; rather, it is determined by the **geographical effects of the action on the environment (i.e., physical, biological and chemical components of land, air, and water).**

- The action area should be defined **early in the BA** in **Section 4.0 *(Action Area Description*)** of the BA.

- A **map or figure** showing the action area should accompany the verbal description of the action area.

- The action area may include discrete areas where project-related impacts may occur **in isolation** from the primary area of anticipated action impacts.

- Within the single action area, project biologists may choose to discuss some of the **zones of impact** previously defined to facilitate report organization and analysis of effects.

Defining the Action Area

The general location of the action area should be described in the BA Section 4.0 (*Action Area Description*). A map, legal description, and photographs (aerial or ground) can help to illustrate the context and extent of the project's action area. Below are examples how this can be displayed (Figures 14-19).

A project biologist's first task is to define the specific limits of the action area. The limits of the action area should be based upon the **geographic extent** (in both aquatic and terrestrial environments) of the physical, chemical, and biological effects resulting from the proposed action, including direct and **indirect effects**, as well as effects of **interrelated and interdependent activities**.

The project biologist should provide **clear justification** of the action area limits so that BA reviewers can follow the author's **line of thought and reasoning**. The author should also provide reviewers with enough information to determine the accuracy of the limits defined.

- Often, project biologists incorrectly identify the action area. The action area should be based on how far all effects of the action reach, not simply how far the impacts related to project equipment extend. For example, if an effect of an action (e.g., dewatering) can be detected 150 miles downstream of the action area, the entire 150 mile stretch of river would be included in the action area.

Each project has just **one action area**, which is usually **larger than the project site or footprint**. The single action area for the action encompasses the extent of all direct and indirect effects related to the proposed action (as well as interdependent or interrelated activities) affecting both aquatic and terrestrial environments. In some situations it may be necessary to define a very large action area to address **all project-related effects**. The number of species addressed in a BA or their presence or absence in the vicinity of a project plays no part in defining the action area for the project.

Action areas are **three-dimensional**, encompassing impacts above and below the water surface. Often the underwater portion of the action area has a size and shape different from the portion of the action area located above water.

To define the action area, a project biologist should complete the following steps:

- **Identify all potential project effects**. This includes all direct and indirect effects to land, air, and water, as well as those effects associated with interrelated and interdependent activities, occurring within both aquatic and terrestrial environments.

- **Determine zones of effect for each type of project effect.** Look at each type of project-related environmental effect (i.e., in-water sedimentation, terrestrial noise, underwater noise, clearing and grading, induced development, traffic, etc.) separately to determine its geographic extent.

- **Determine the geographic extent of all project effects.** Once the project biologist has identified zones representing the geographic extent of each type of project-related environmental effect, these zones can be combined to form a single representation of the geographic extent of all project effects.

- **Define the action area.** The action area is defined by the outermost extent of all of the zones of effect combined.

Terrestrial and Freshwater Projects

Defining the geographic extent of potential effects is often difficult. For example, delineating the limit of noise impacts, or determining how far noise will travel from a specific location before attenuating to background levels, can be speculative. In the past, commonly accepted thresholds were often used for terrestrial areas (e.g., a 1-mile radius for pile driving activities and ½ mile for construction noise). However, these thresholds should be refined based upon an analysis of site- specific background noise levels and the predicted distance noise levels will travel before attenuating to background conditions. The geographic extent of project-related noise underwater can extend well beyond the radius defined for terrestrial impacts, depending upon surrounding bathymetry, water temperature, and other factors.

Estimating the maximum downstream distance through which sediment or pollutants can affect water quality also may be speculative. One approach uses mixing zone distances that apply to many actions. Whatever the approach, a sound rationale—and, if possible, documented support for the limits of the approach taken —must be documented.

Examples of Process for Defining the Action Area

Below are two examples of how the action area for a project is defined. The first example shows how an action area is determined based upon the zones of impact defined for multiple action elements. The second example illustrates how an action area is defined in an aquatic environment, based upon anticipated noise impacts above and below the water.

EXAMPLE 1

The first example illustrates how the overall action area for a project is composed of the combination of **multiple zones** of effect that reflect potential impacts associated with each project element. In this example, the action area is defined based on the extent of project-related noise and the extent of project-related aquatic effects. The proposed action consists of roadway widening and replacement of a culvert. Figures 14, 15, and 16 show: 1) the overall action area, 2) the extent of project-related noise, and 3) the extent of project-related aquatic effects.

The following are three steps that should be taken to establish the action area for your project.

1. The **first step** in defining the action area is to identify all potential project effects to **land, air, and water.** In this example, there is construction and pile driving noise associated with roadway widening and culvert replacement activities. The aquatic effects include potentially increasing downstream turbidity, and providing 1,600 feet of upstream fish passage to a creek segment that was previously impassable.

2. The **second step** is to define the zone or area affected by each type of anticipated project-related effect. These zones and the rationale for establishing their limits are described in the text and shown in Figures 15 and 16.

3. The **last step** is determining the geographic extent of all project impacts. By combining or overlaying the zones of effect illustrated in Figures 15 and 16, the project biologist can determine the geographic extent of all project effects (Figure 14). Some action may have multiple zones of effect that need to be considered simultaneously.

Based on this combination of all relevant affected areas, the project biologist can then delimit the action area. The action area limits outline the outermost extent of contiguous project-related effects, plus any outlying areas that will sustain project-related effects (such as a wetland mitigation site) (see Figure 14 below).

Figure 14. Example showing project vicinity and action area limits (courtesy of WDOT).

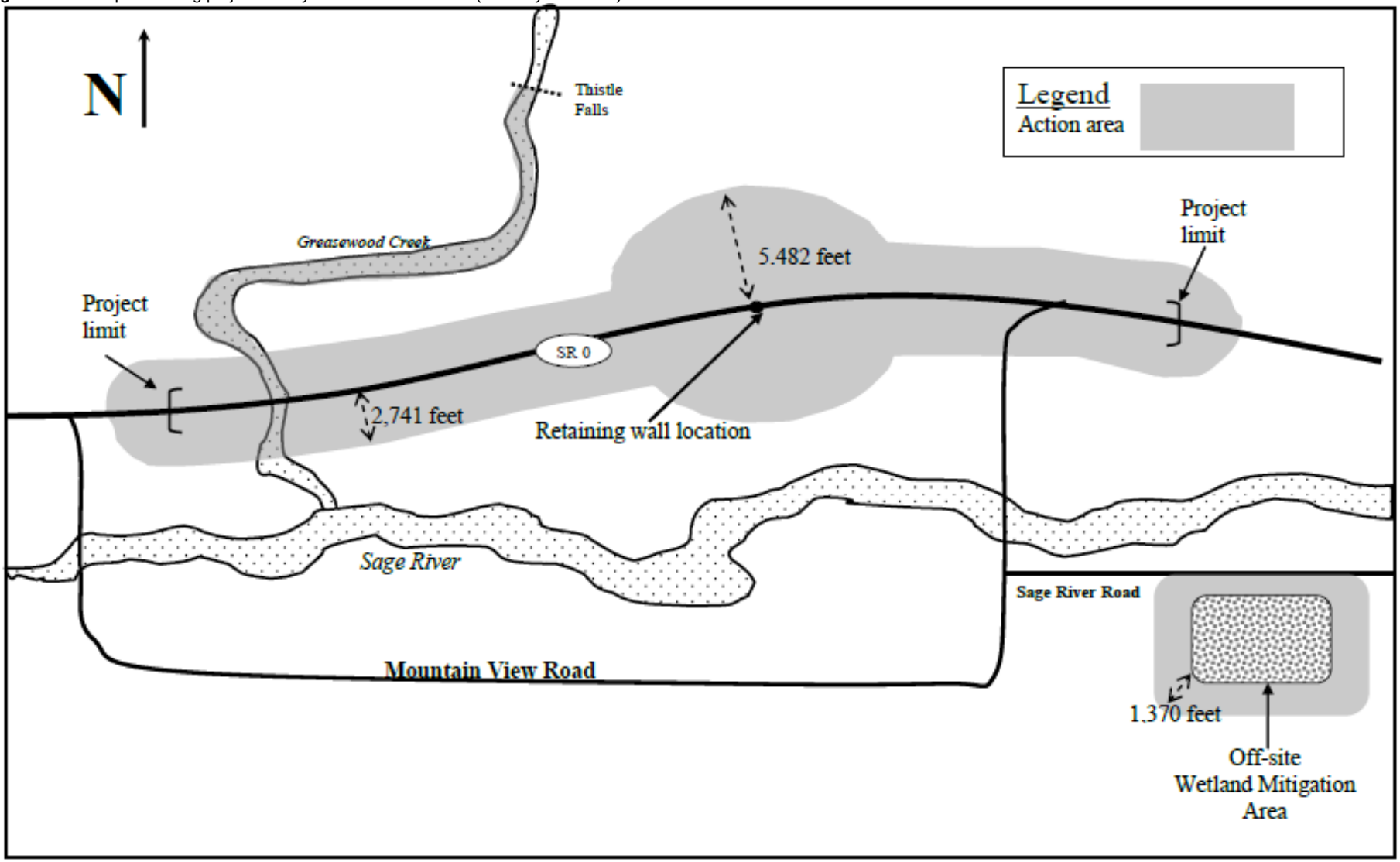
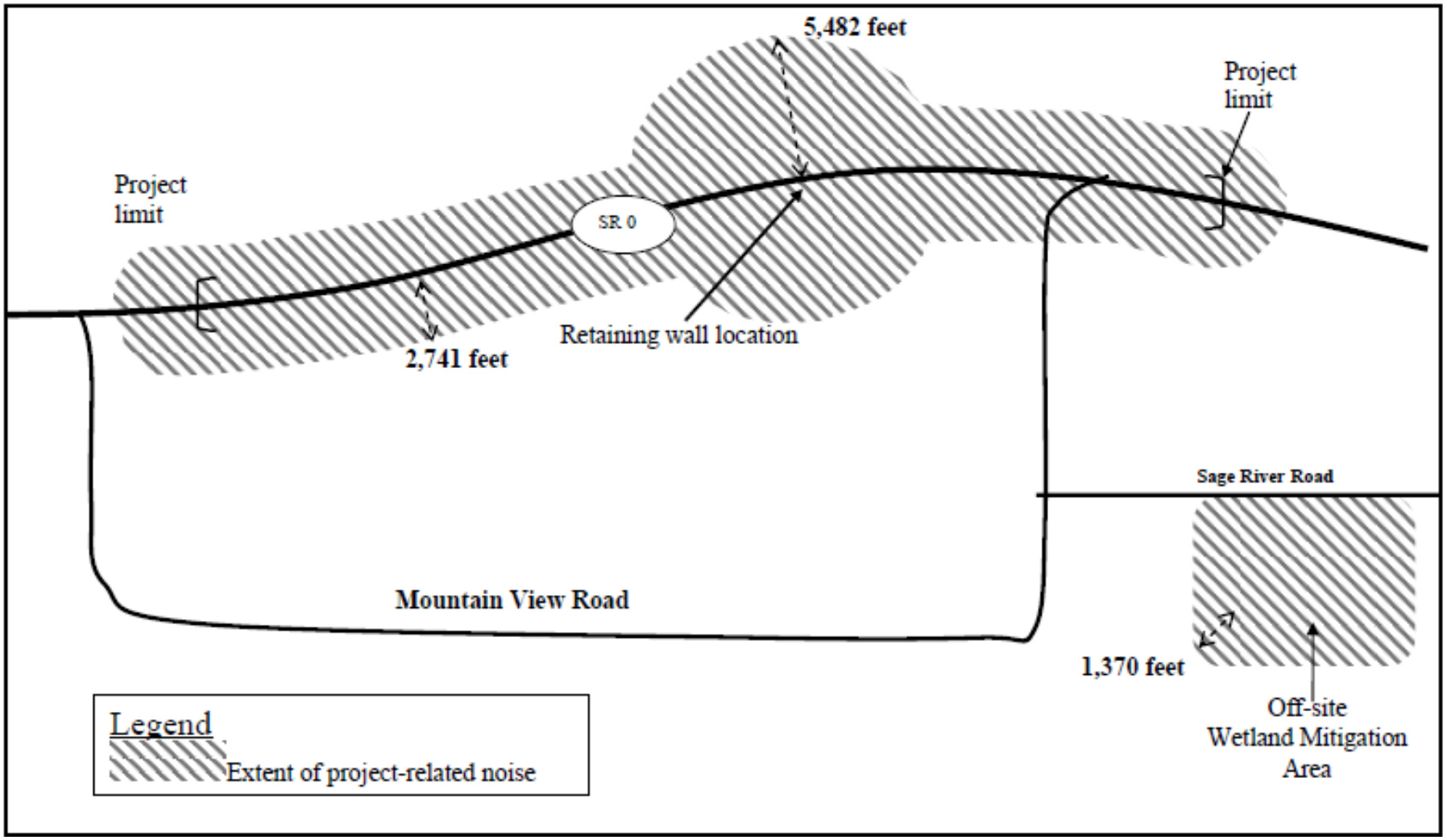
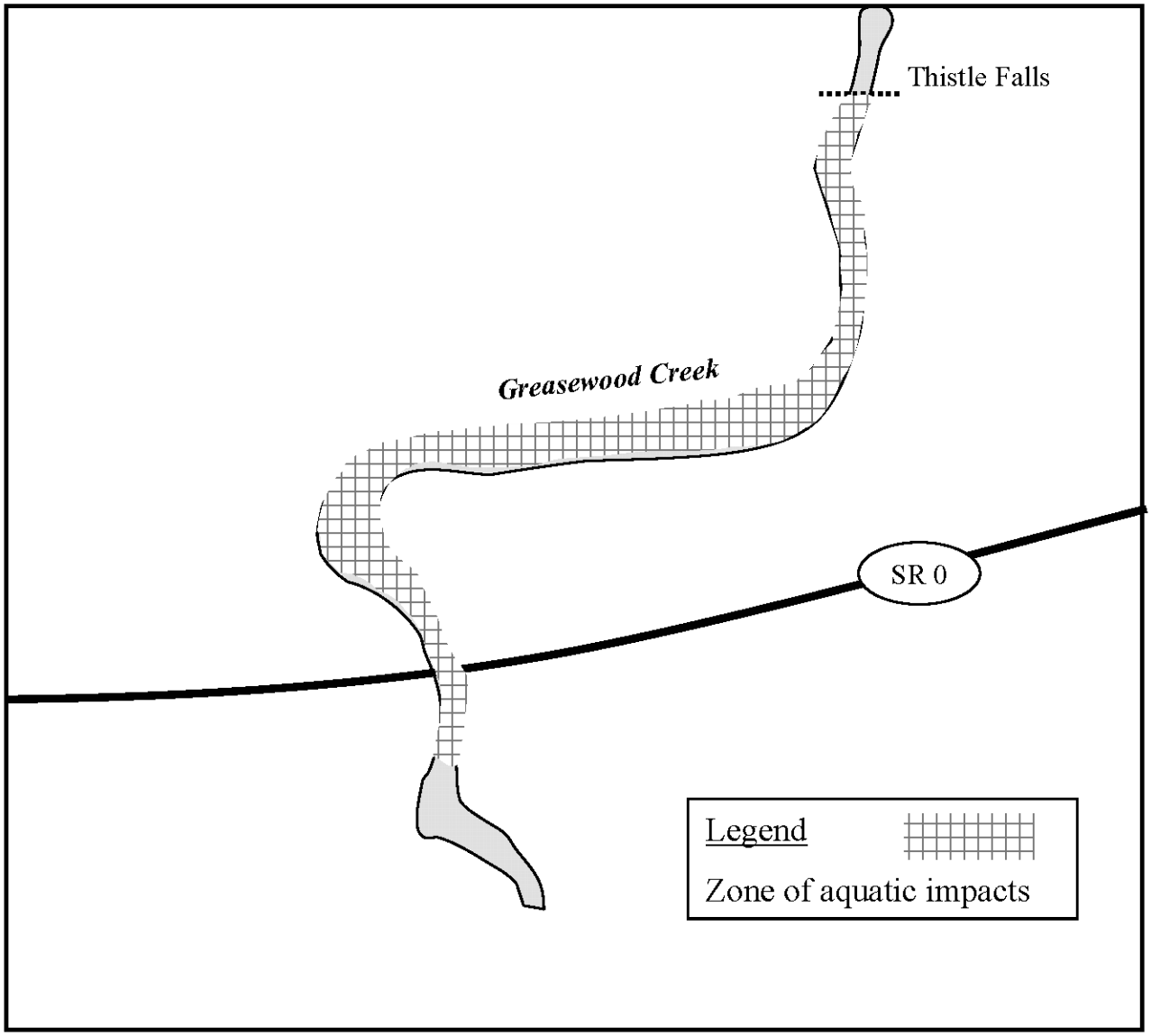


Figure 15. Example showing extent of project-related noise to define action area limits (courtesy of WDOT).



The action consists of roadway widening, retaining wall construction, and a culvert replacement. The project limits shown above are the beginning and end points for the widening corridor. Noise associated with roadway widening is expected to extend 2,741 feet from the roadway. Construction of the retaining wall requires impact pile driving, and the extent of construction noise expands to 5,482 feet around this activity. The culvert replacement requires closure of SR 0 so traffic will be routed to Mountain View Road. A wetland mitigation site will be constructed near Sage River Road. Due to construction equipment noise at the mitigation site, project-related noise extends 1,370 feet around the wetland mitigation site.

Figure 16. Example showing extent of project-related upstream effects to define action area limits (courtesy of WDOT).



The action will conduct in-water work by replacing a failed culvert on SR 0 over Greasewood Creek. The culvert has not allowed fish passage for several years, but after project completion, fish will be able to access upstream habitat in Thistle Falls, which is an impassable natural barrier. This access to habitat is a beneficial effect, and therefore constitutes a project-related aquatic effect. Aquatic effects extend from 330 feet downstream of the action area (WDOT-Washington State Department of Ecology Water Quality Implementing Agreement) to approximately 3 miles upstream to Thistle Falls.

EXAMPLE 2

The second example illustrates how an action area is defined for an action involving in-water pile driving. Although other effects such as sedimentation or turbidity could also be generated by project activities, this example assumes that these zones of effect are confined within the area affected by project-related noise. Since the extent of project- related noise represents, geographically, the most far-reaching project effect, the limit of noise impacts is also considered the limit of the action area. This example also illustrates the different attenuation rates of noise above and below water, demonstrating that noise impacts must be considered in a three-dimensional

fashion. Figures 17 and 18 illustrate the aerial and underwater extent of the action area defined for this action, respectively.

This example shows the approximate extent of project-related noise (over land and water) resulting from in-water pile driving activities. Noise attenuates at different rates over land (soft site) and over water (hard site), which explains the difference in radii. The limit of project-related noise is the distance at which noise from construction is indistinguishable from baseline noise.

Figure 17. Extent of project-related noise from water pile driving (plan view) to define action area limits (courtesy of WDOT).

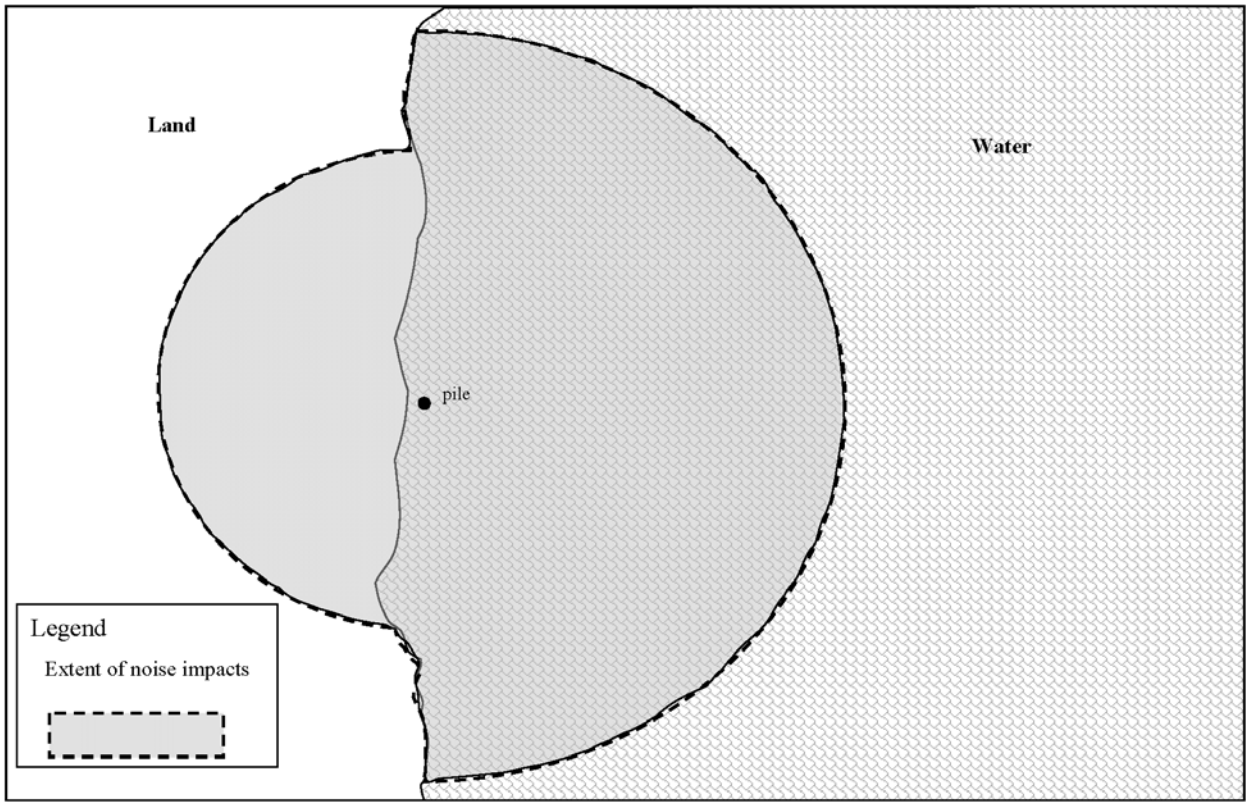
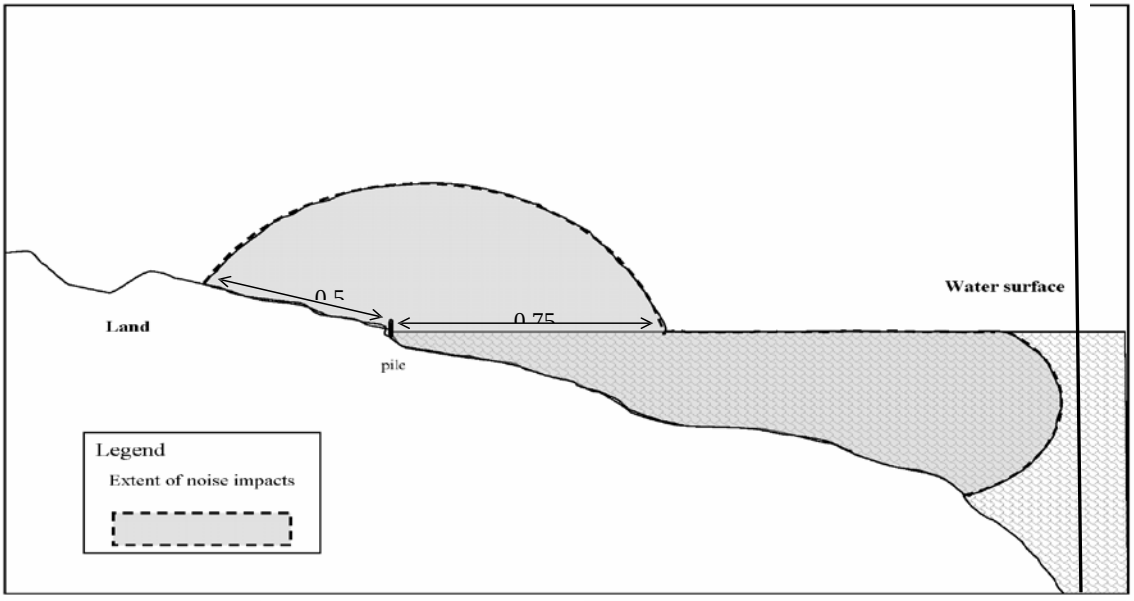


Figure 18. Extent of project-related noise from in-water pile driving (cross-sectional view) to define action area limits (courtesy of WDOT).



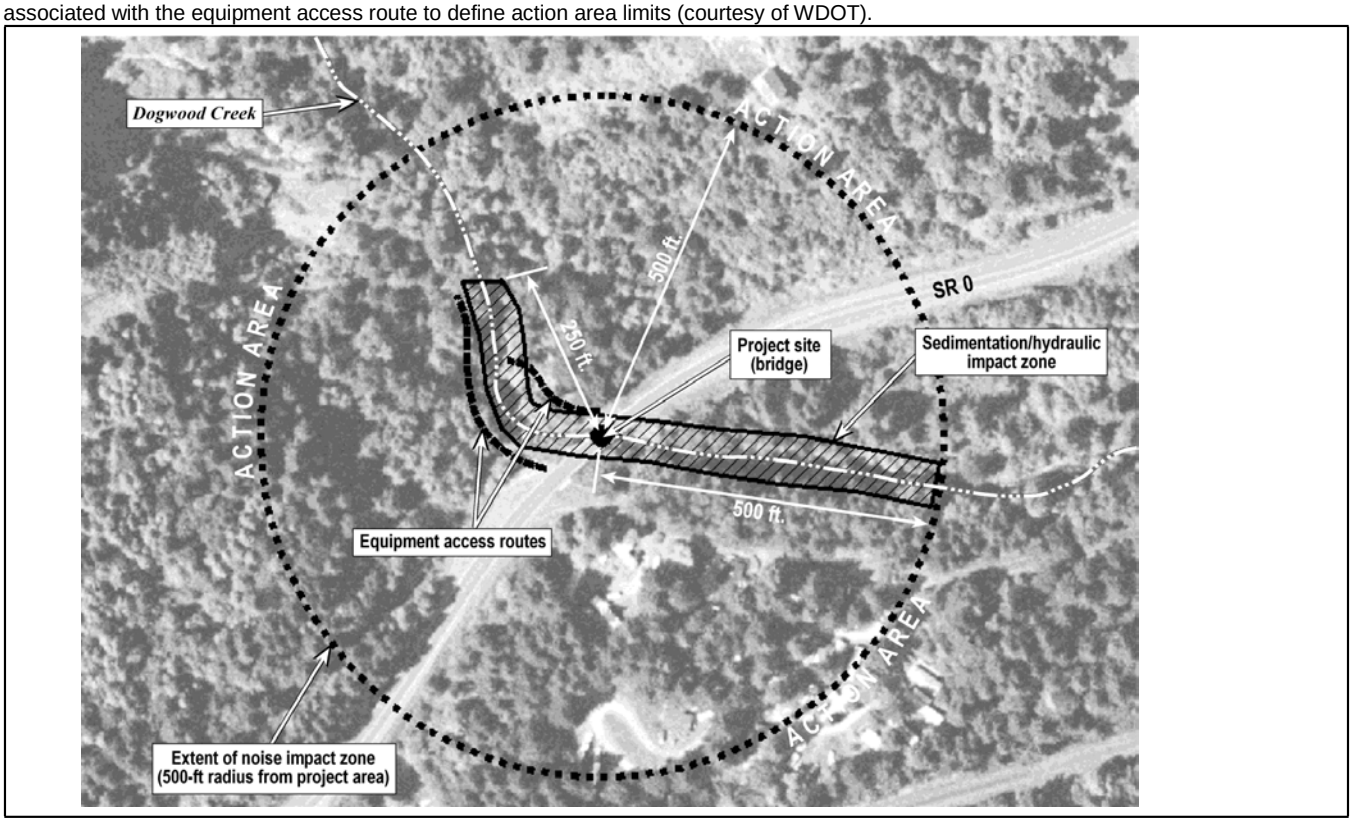
EXAMPLE 3 – SAMPLE OF AN ACTION AREA DESCRIPTION

An example of how to define a project's action area, accompanied by an aerial photograph illustrating the extent of the action area is provided below (Figure 19). The project entails rebuilding a bridge along SR 0. The action area encompasses the direct effects of the proposed action (noise and sedimentation/hydraulic impacts) as well as effects associated with the equipment access routes to be used for the action. In this example, the outer limits of the action area are determined by combining these multiple zones of effect.

The action area includes all areas that could be affected by the proposed project and is not limited to the actual work area. Noise and disturbance from construction activities have the potential to extend 500 feet outward from the action area. Project-induced sediment conveyance and hydraulic effects could affect Dogwood Creek and its stream banks up to 250 feet upstream of the bridge and 500 feet downstream of the bridge (Figure 19). Equipment access routes will generate impacts on both banks of Dogwood Creek, but these access routes are within the 500-foot action area.

Consequently, the action area has a radius of 500 feet in all directions from the project footprint, encompassing noise, equipment access, and sediment/hydraulic zones of effect. These distances are established with the confidence that they include all areas of conceivable impact associated with the proposed action.

Figure 19. Detail of project action area including zone of effect for project-related noise sedimentation/hydraulic effects, and effects associated with the equipment access route to define action area limits (courtesy of WDOT).



Appendix E – Using the USFWS IPaC Website
Obtain Species Lists, Critical Habitat, and Species Information

(Adapted from USFWS IPaC website: https://www.fws.gov/ipac/ipac_basics.html

The Information, Planning, and Consultation System (IPaC) gives you access to crucial information when you need it ... ***BEFORE*** you have designed your project.

IPaC Overview

The true key to effective species conservation is to start as early as possible. For every impact, we can address during the design-phase of an action is an impact that won't need to be mitigated later and, likely, at greater cost. Use the link to the right to watch a short video of IPaC overview.

Watch the 26 Minute Overview of the IPaC Decision Support System 

Goal of IPaC:

- **Look at the big picture rather than a little piece.** IPaC helps us look at species health and conservation across the landscape, not just in your project/action area. The only way to ensure that measures you take will help the species is to look at it in context with the species' overall conservation needs.
- **Provide as much information as possible up-front** to **aid project design**, reduce your design costs by minimizing the potential for design changes, and **reduce environmental impacts**.

IPaC provides **up-front information** to help **reduce your design costs and environmental impacts** and to ensure that measures you take **contribute to the overall health of the species.** You can identify a proposed project's location and instantly receive the following from the USFWS:

1. **Resources that may be affected by the action (i.e., a species list)**:

    - **Threatened & Endangered Species** (now available)
    - **Designated Critical Habitat Areas** (now available)
    - **Migratory Birds** (partially available)
    - **Wetlands Conservation** (partially available)
    - **Other Features (**under development)

2. **Resource Information**: Resource information pages can highlight special needs, such as the timing of species surveys, so that work schedules can be mapped out as early as possible (now available).
    - **Species Ecological Information -** important aspects of the species' life history, threats, and conservation needs (now available).

3. **Recommended USFWS Conservation Measures**: How you can avoid, minimize, and mitigate impacts that may result from potential activities (partially completed).

4. **Recovery Plans**: Information that can be used for recovery planning, and specific recovery actions that can be undertaken to facilitate species conservation (partially completed).

5. **Local USFWS Office Contact Information**:
    - When you **coordinate with the USFWS** early on, it can often facilitate and expedite the consultation process. Additionally, the system can notify the appropriate USFWS office who will be able to review the information provided and notify you of any unusual circumstances of which they are aware, but that the system did not identify. This is intended to reduce or eliminate surprises such as additional conservation issues being discovered during the consultation process (now available).

6. **Reports:** All this information that can be downloaded and printed (now available).

IPaC will never replace trained biological experts. It cannot perform complex biological analyses. However, by handling routine tasks and providing some basic ecological information when you need it, it allows biologists to focus on handling complex tasks that require their knowledge and expertise.

IPaC Provides

- Tailored species list
- Access to additional information
- Recommended conservation measures
- Location-specific Service contact information
- Save and Print Report
- Internet-based project information submittal

Tailored species lists (now available)

For each federally-listed Endangered and Threatened species, the USFWS has determined the area within which any actions will need to consider potential effects to listed species and added it to the IPaC mapping system. Identifying these "***may affect***" areas for each species allows you to instantly receive a tailored list of species that may be affected by your action.

To receive a species list, you can choose to define an area by 1) drawing it on a map or 2) selecting the state and one or more counties from a list. IPaC then instantly generates a species list for your selected area (covered in more detail below).

The initial species list provided may be preliminary (unofficial) and for planning purposes only. However, you are given the option of requesting an "***Official Species List***".

How the official list is provided is controlled by the local USFWS Field Office responsible for the area you selected. The USFWS Field Office may choose to:

1. **Have IPaC provide an automated Official Species List.** If the Field Office has selected this option, once you click on the link to "Request an Official Species List" and provide your contact information, the official list is immediately emailed to you in pdf format. *(This is covered in more detail below).*
2. **Have IPaC send a request for an official species list to the Field Office.** If the Field Office has chosen this option, once you click on the link to "Request an Official Species List" and provide your contact information, IPaC emails a request for an official species list to the Field Office on your behalf. An email is also sent to you to let you know that the request has been sent and the list will be provided to you within 30 days.

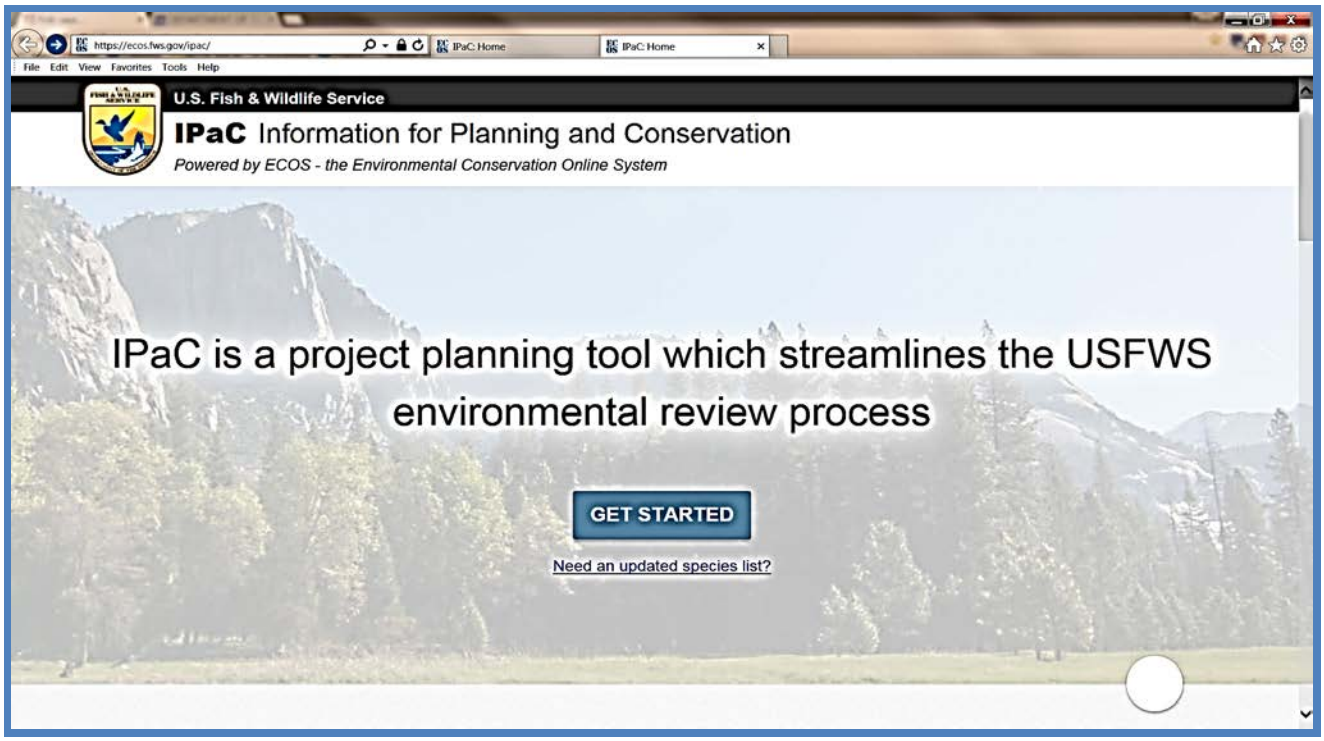
In some cases, the local Field Office may have decided not to provide species lists through IPaC at this time. If a Field Office has selected this option, when you identify a location within that Field Office's jurisdiction, you will receive a notice that they do not use IPaC for species-list generation at this time. The Field Office's contact information and, if available, a link to the field office's website, will also be provided.

The following are step by step instructions with screen shots how to use the IPaC website to obtain your "**official species list"** of threatened and endangered species, designated **critical habitat**, list of **migratory birds**, and many **links** and **valuable information** on species that may be present in or near your project/action area.

USFWS Species List and Other Information

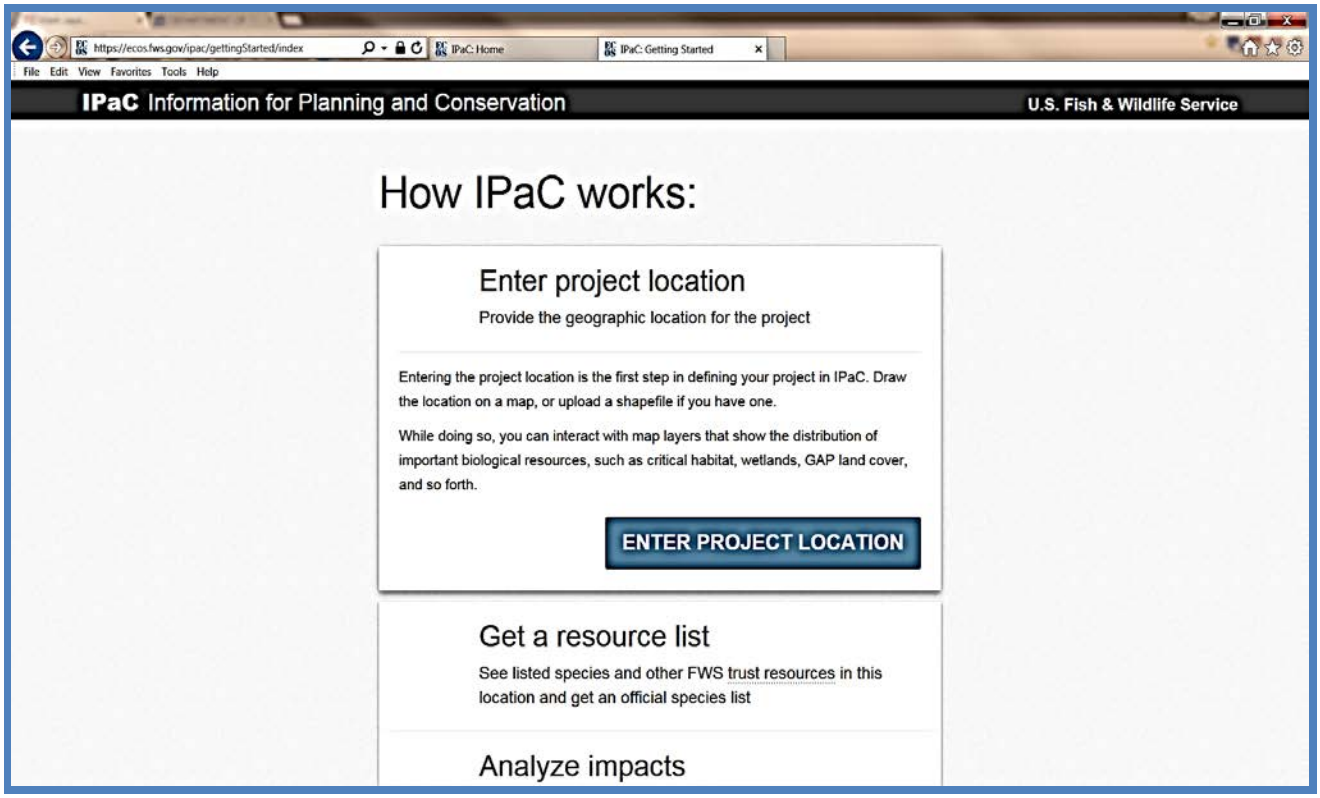
To open the USFWS IPaC website go to http://ecos.fws.gov/ipac/. This is the USFWS' home page for this system. Click on the "**GET STARTED**" button (see screenshot 1 below).

Screenshot 1.



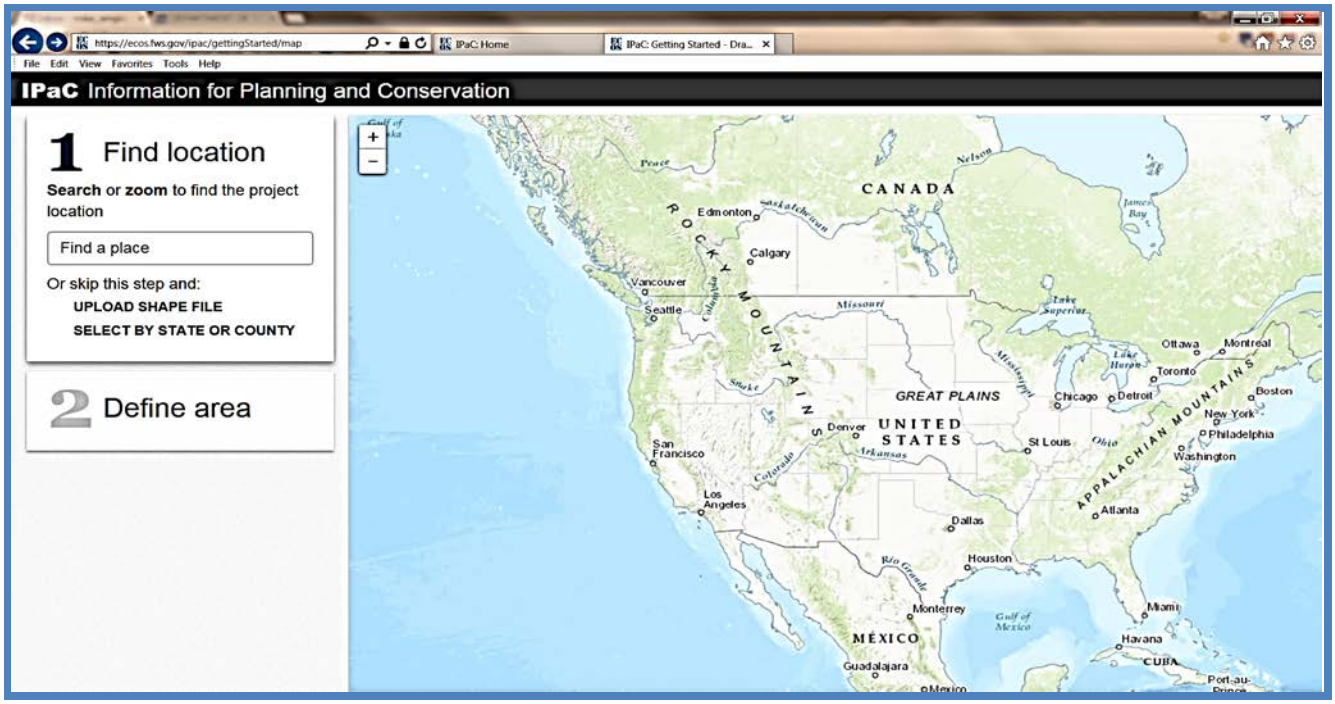
Next, click on the "**ENTER PROJECT LOCATION**" button (see screenshot 2 below).

Screenshot 2.



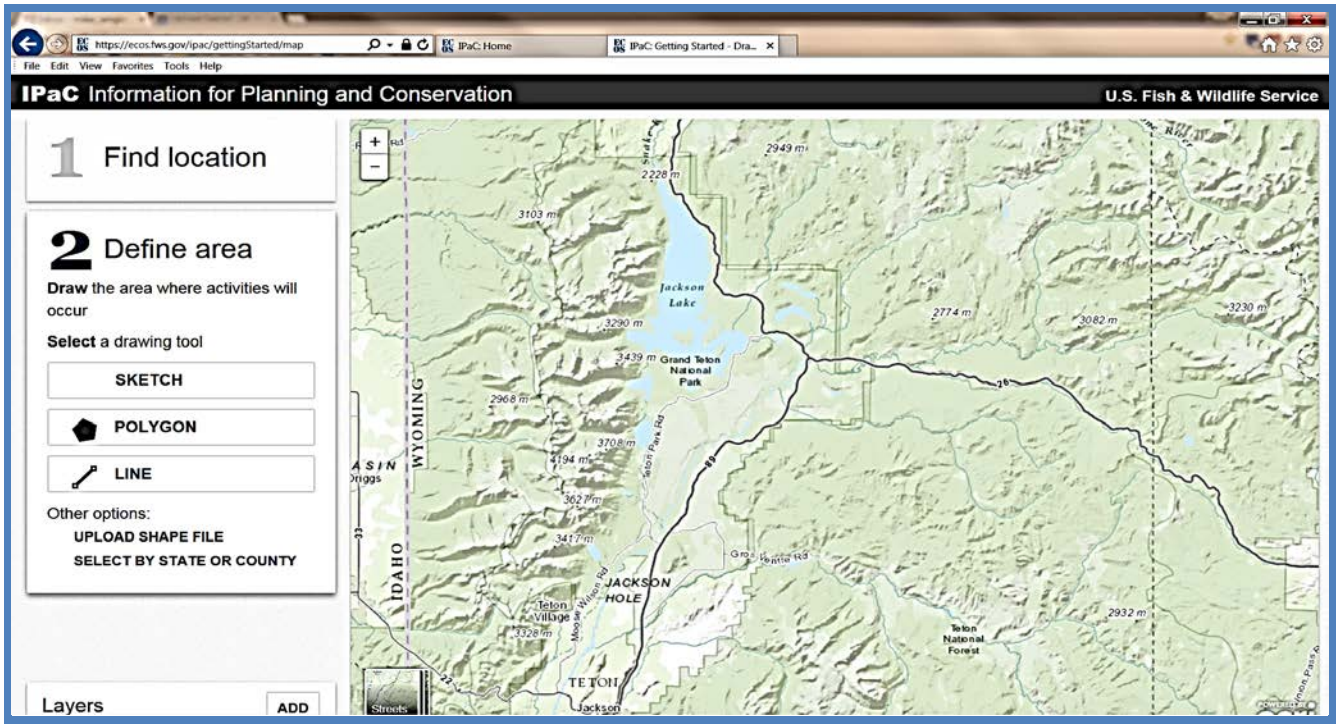
STEP 1 FIND LOCATION: You have several options of entering in your action's location (action area). You can select one of three options: **OPTION 1)** draw the project/action area using your curser, **OPTION 2)** upload a project/action area "**SHAPE FILE"** button, or **OPTION 3)** select your project/action area by "**STATE OR COUNTY"** button. Below in screenshot 3 we show **Option 1** as an example to draw your project/action area, but using any of the options will work. Try different options to see which you prefer using.
NOTE: In most cases, USFWS identifies known/potential species occurrence to the county level at the smallest scale. Selecting **OPTION 3** – "**SELECT BY STATE OR COUNTY"** is the **easiest and quickest way to get your list** without drawing the action area or downloading shape files. However, often the number of species on the "**Official USFWS Species List**" contains more species than may be present or affected by your action, thus using the table in Exhibit 7 in the Guidebook you can exclude those species with rationale.

Screenshot 3.



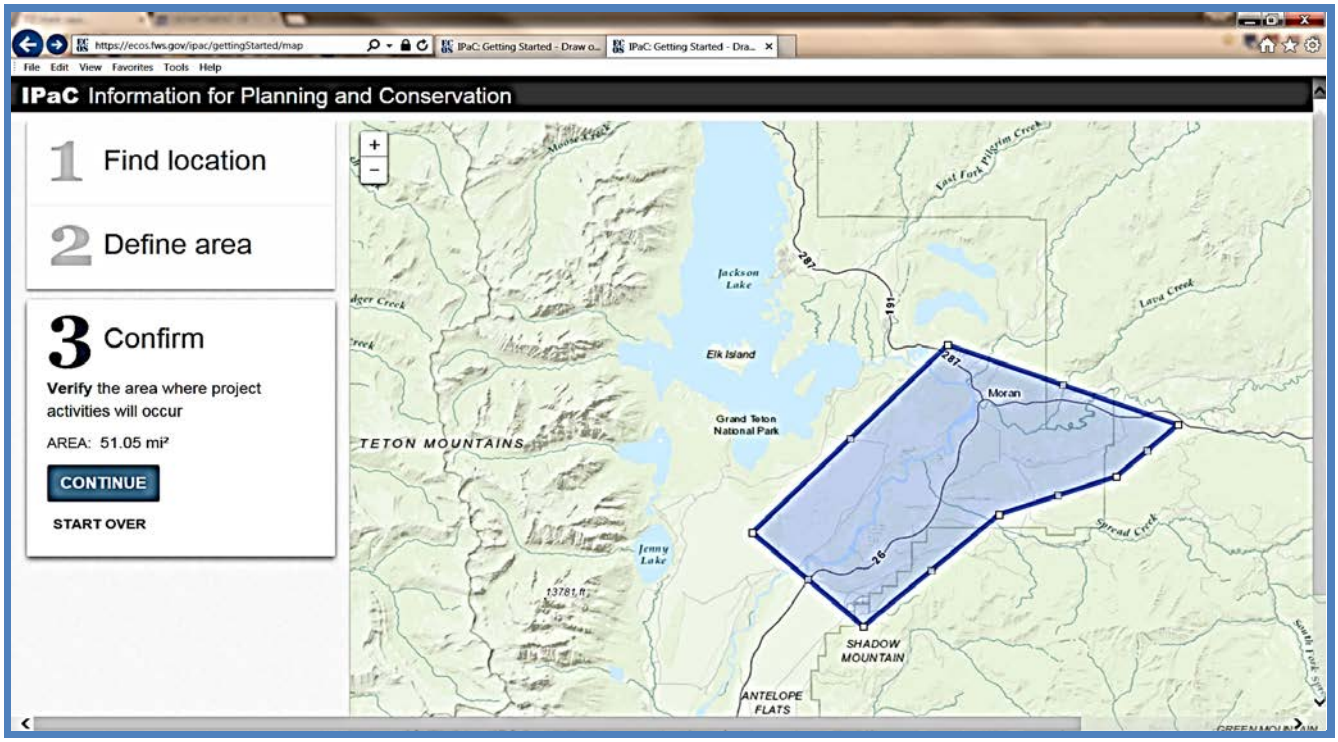
STEP 2 DEFINE AREA: **Option 1)** Click on the map and zoom in to the general area of your action area (see screenshot 4 below).

Screenshot 4.



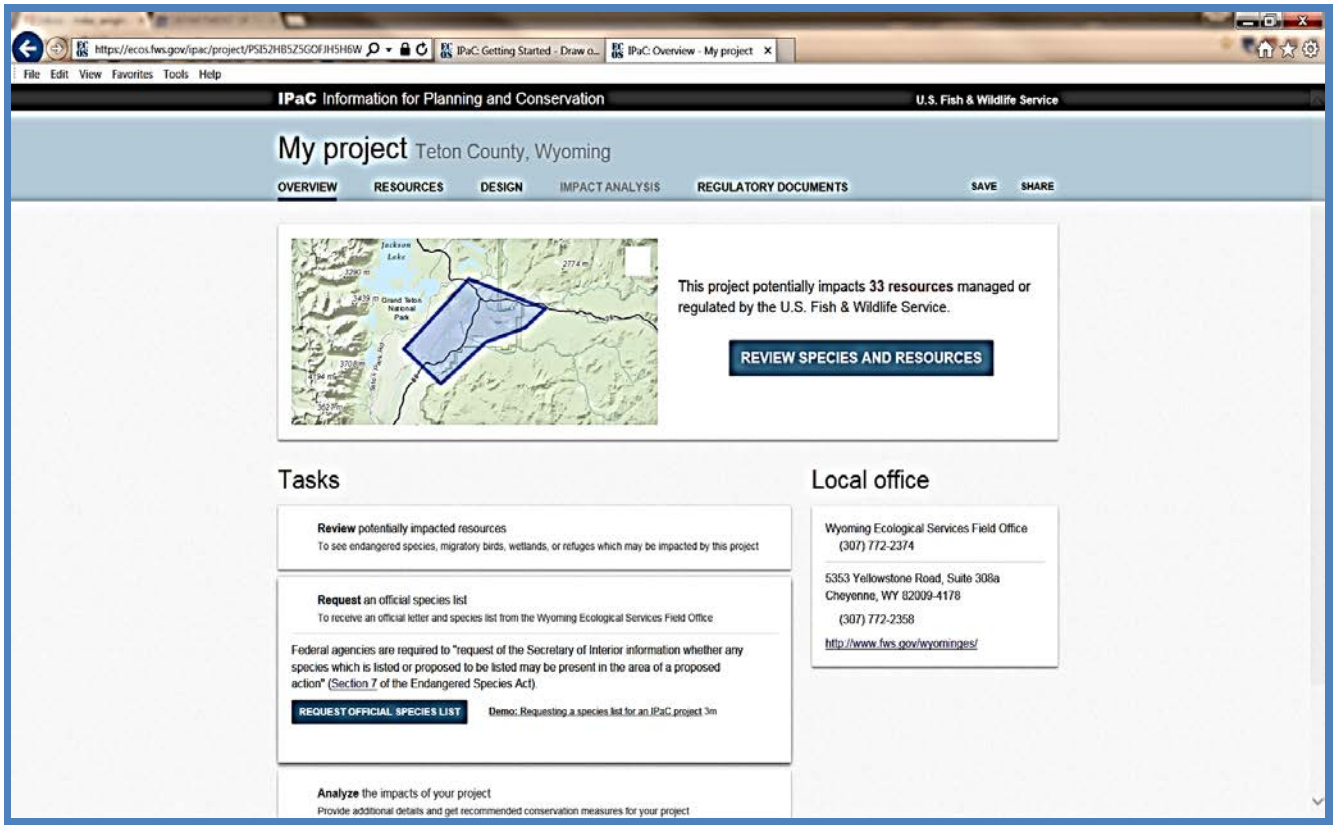
STEP 3 CONFIRM: **Option 1 cont.)** Using your curser draw your project/action area boundary forming a polygon of your project/action area. Then click on the "**CONTINUE" button**. The area of your project/action area will be calculated for you (see screenshot 5 below).

Screenshot 5.



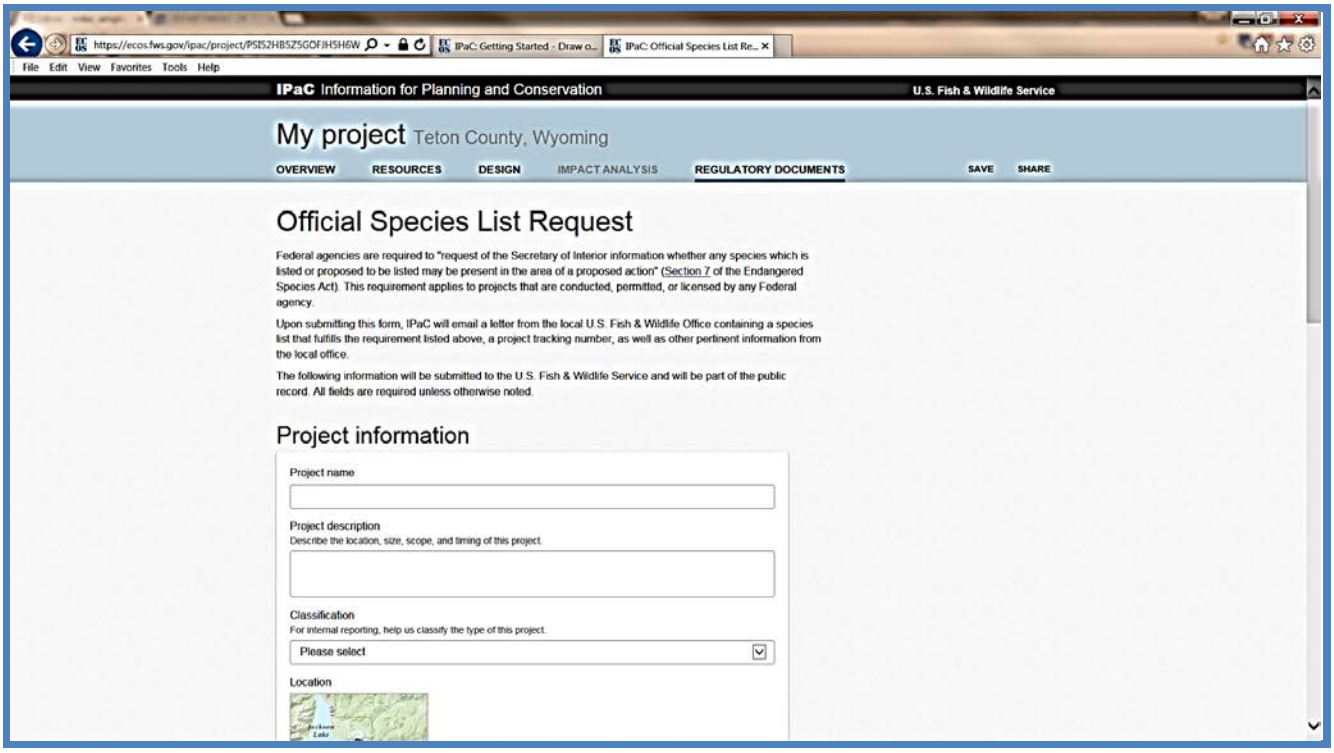
Option 1 cont.) After clicking on the "**CONTINUE**" button click on the "**REQUEST AN OFFICIAL SPECIES LIST**" button (see screenshot 6 below).

Screenshot 6.



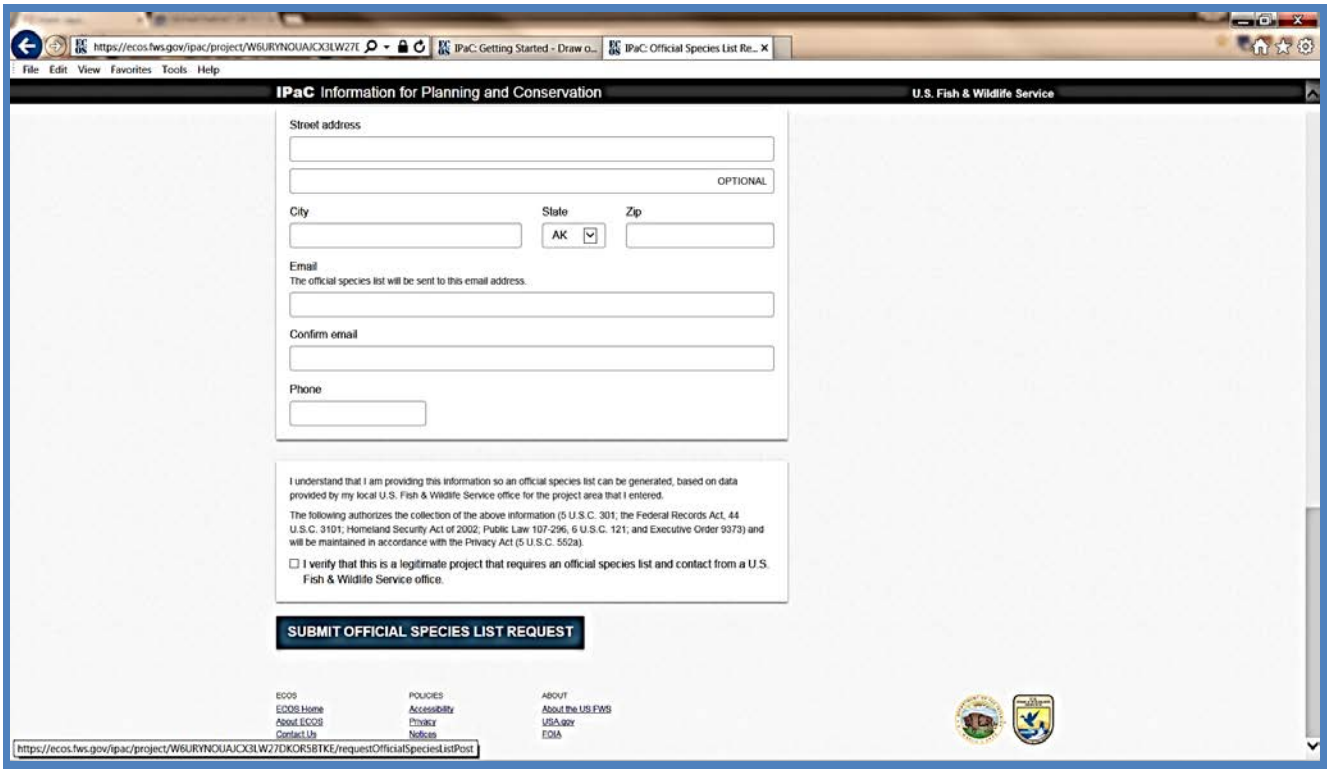
(After using any of the 3 options above) Next, fill out the information below and submit it to the USFWS (see screenshot 7 below).

Screenshot 7.



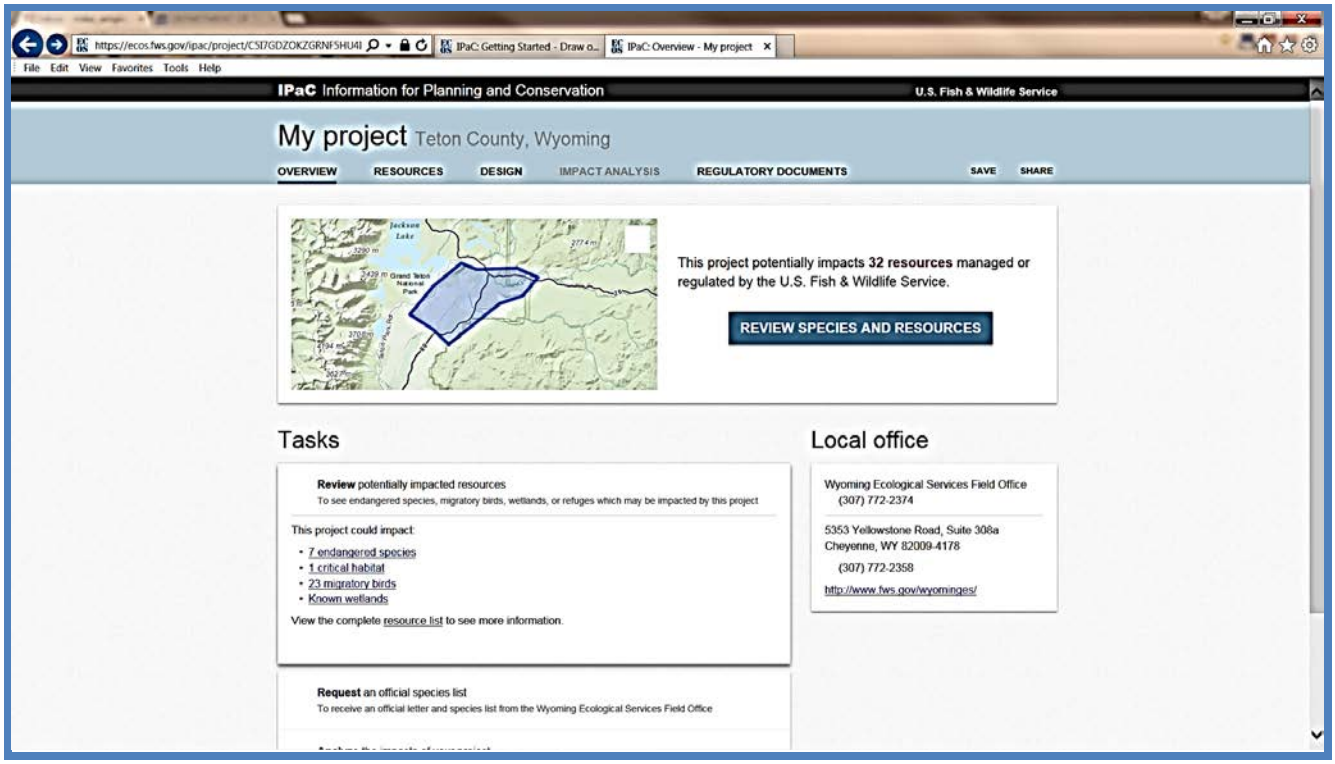
After filling out your information, click on the "**SUBMIT OFFICIAL SPECIES LIST REQUEST"** button. You will shorty receive an email from the USFWS at the address you entered with your species list and a unique consultation number for this project. **Be sure to reference this USFWS consultation number in your BA** under ***Consultation History*** (Section 2.0 of your BA), populate the table in your BA (Section 5.0 *Prefield Review*) and include this letter as an appendix of your BA and administrative files (see screenshot 8 below).

Screenshot 8.



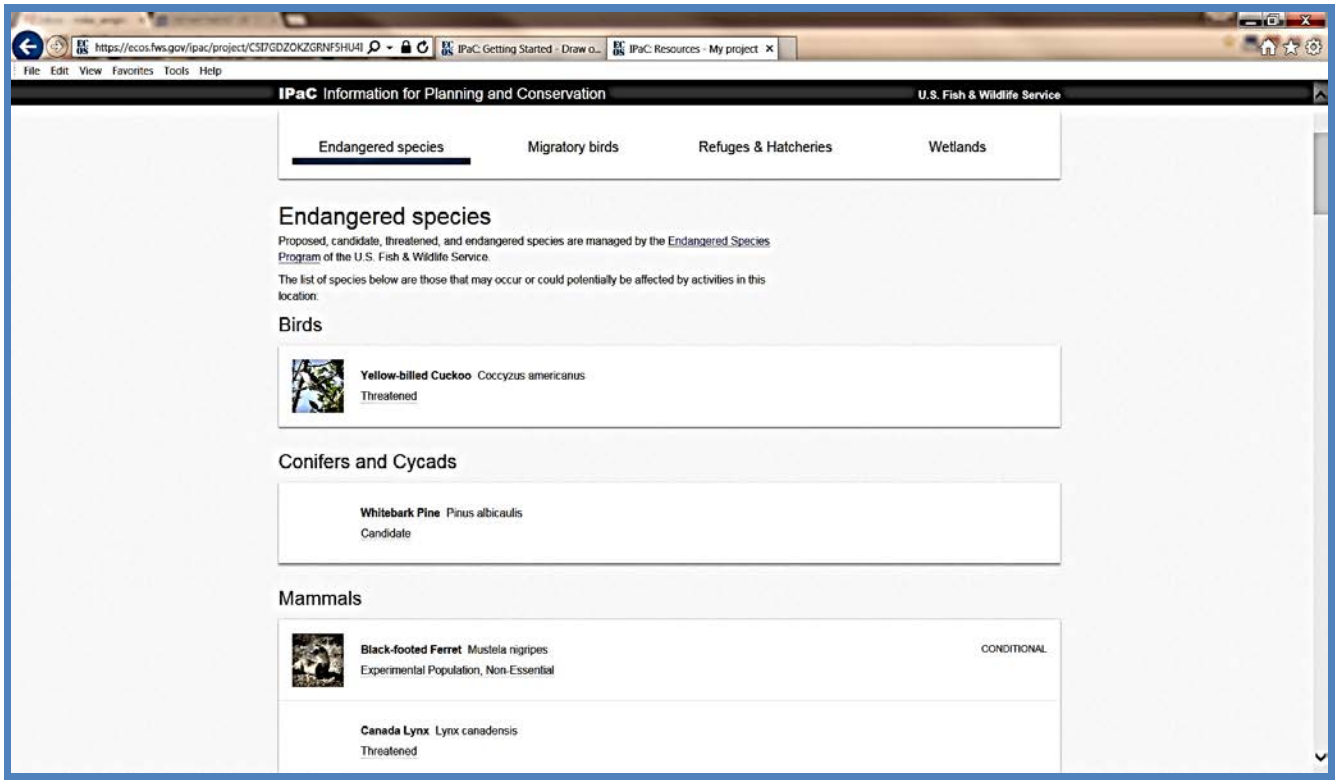
Using this website, you can also click on the "**REVIEW POTENTIALLY IMPACTED RESOURCES**" button to obtain a list of **endangered species, designated critical habitat migratory birds, and known wetlands** potentially within your project/action area. This will assist you in addressing not only federally listed species, but will also provide a list of potential species of special concern (such as birds protected under the MBTA) and potential sensitive areas for your BA and NEPA analysis (see screenshot 9 below).

Screenshot 9.



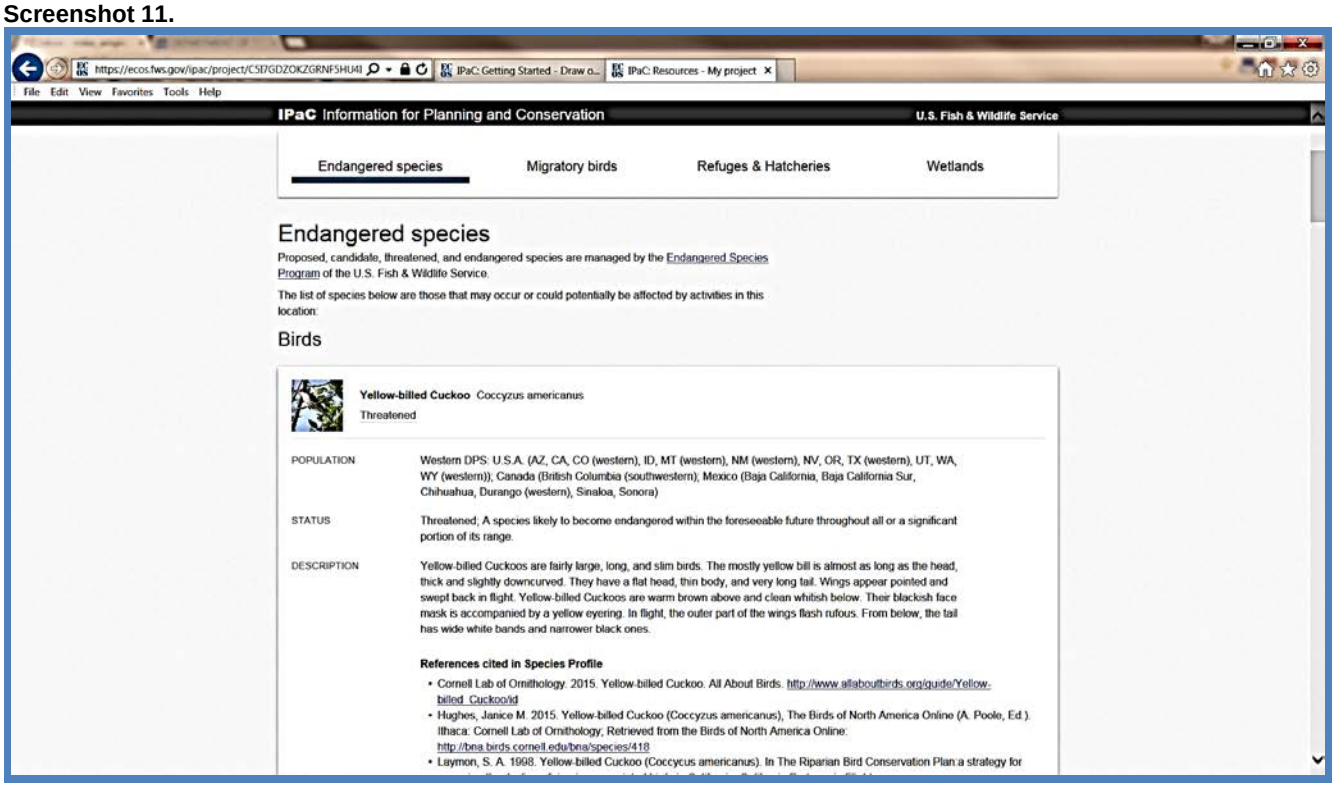
Clicking on the **"ENDANGERED SPECIES"** button shows you **individual species** (see screenshot 10 below).

Screenshot 10.



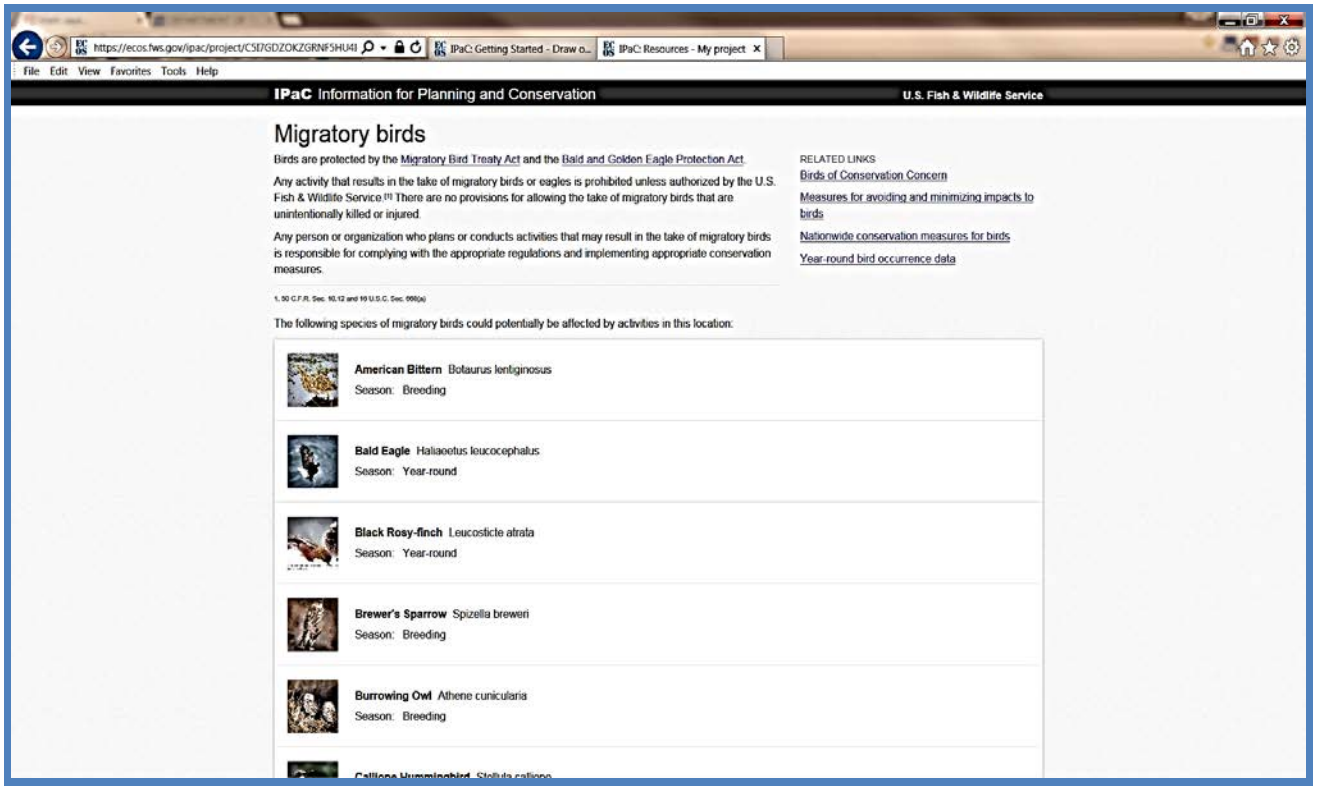
Scrolling down you can see information and **links for each species** that may be present in or near your project/action area (see screenshot 11 below).

Screenshot 11.



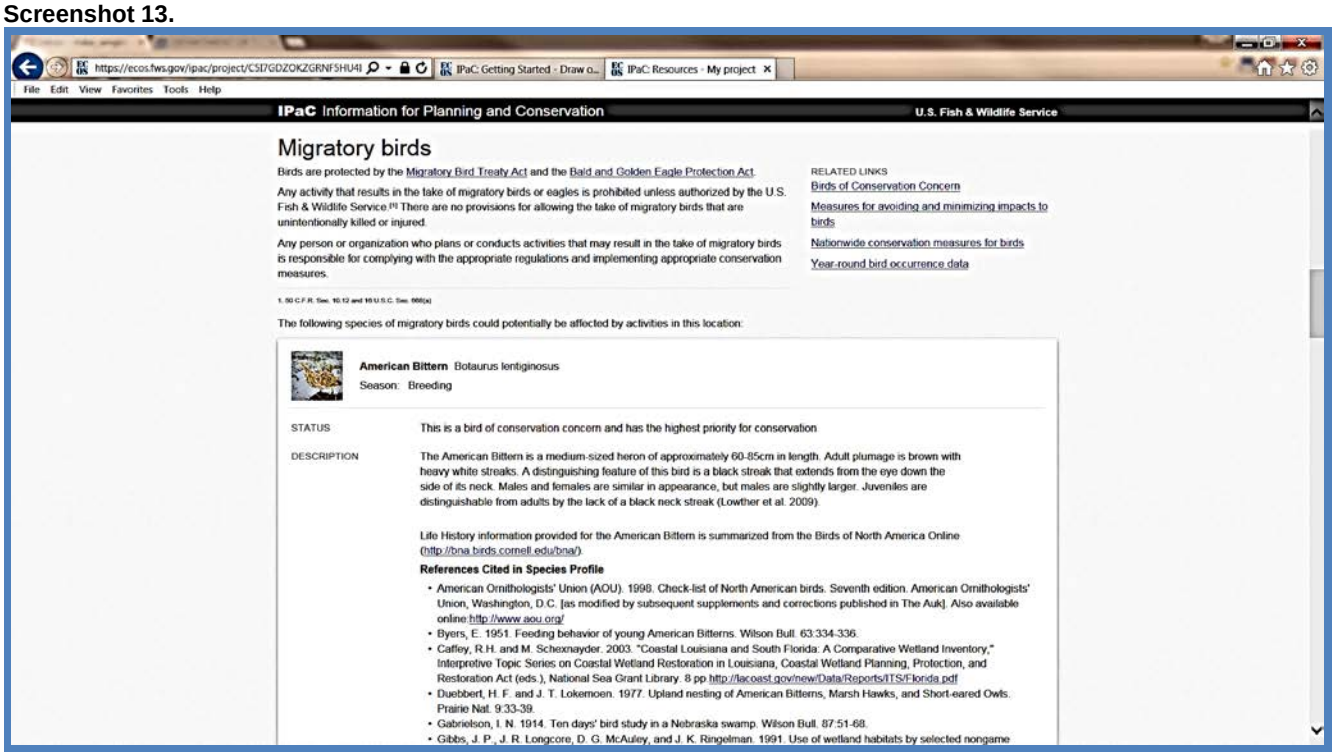
Scrolling down you can also get a **list of migratory birds** that can be used for your **Species of Special Concern analysis and MBTA** (see screenshot 12 below).

Screenshot 12.



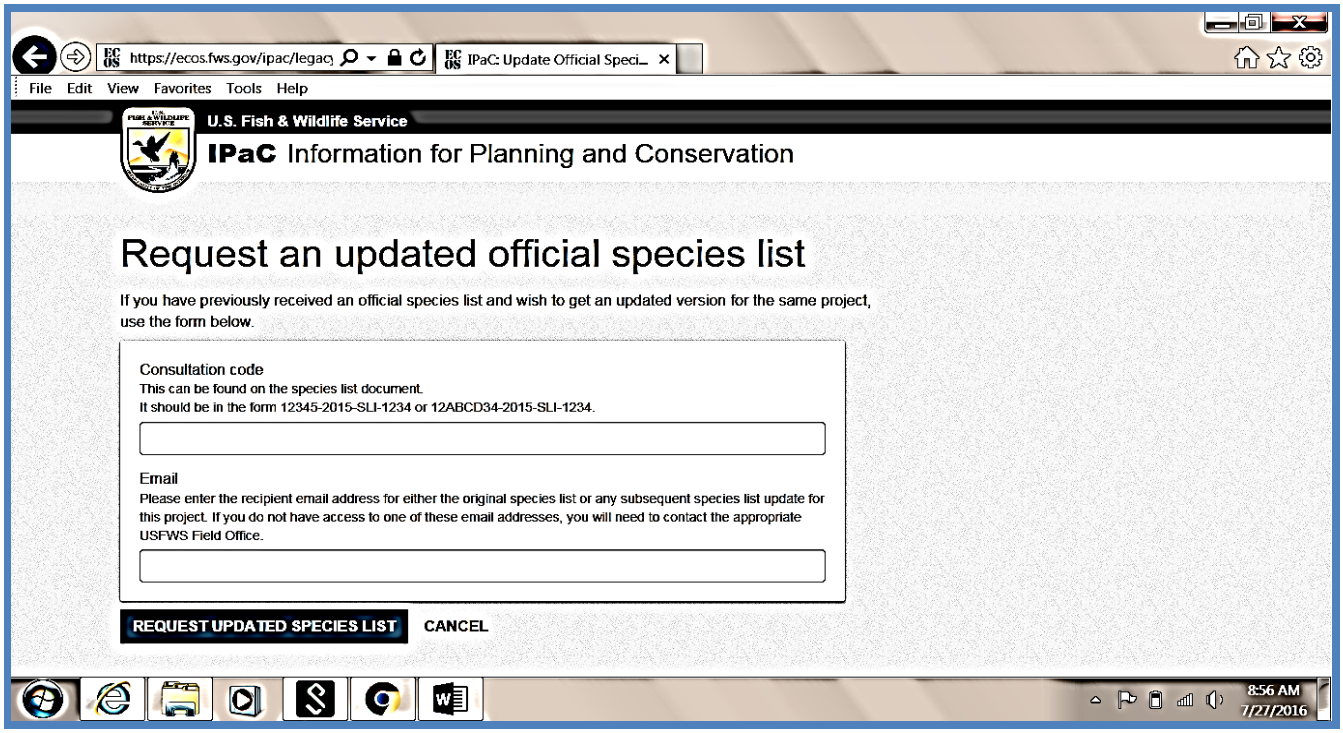
Clicking on individual **migratory bird species links** will provide valuable information of their **life history** and many other valuable resources (see screenshot 13 below).

Screenshot 13.



If you need an "**Updated official species list"** (i.e., because your list was generated more than **90 days** prior to submitting a BA to the USFWS/NMFS) you can also request an updated list using IPaC. From the IPaC homepage (shown in screenshot 1 above), click on the "**REQUEST UPDATED SPECIES LIST"** button and the below page will appear. Fill out the information and you will get an updated list (see screenshot 14 below).

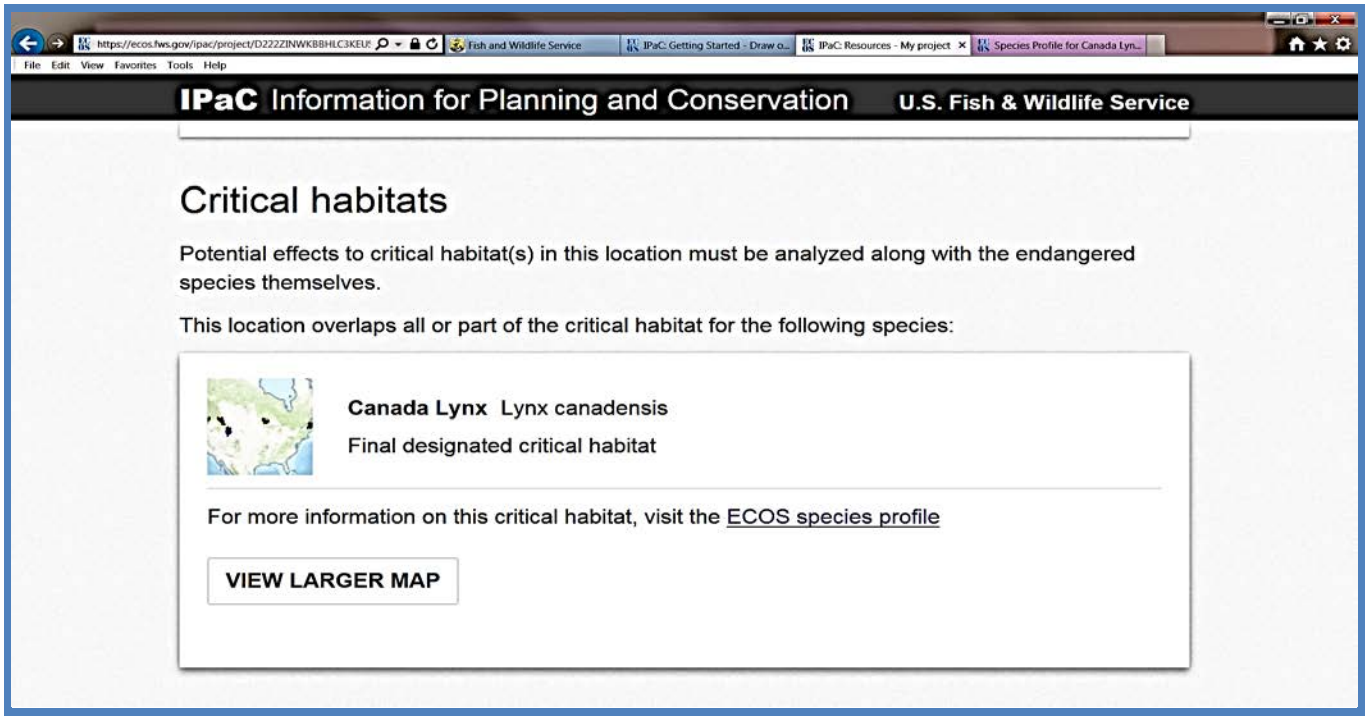
Screenshot 14.



Critical Habitat

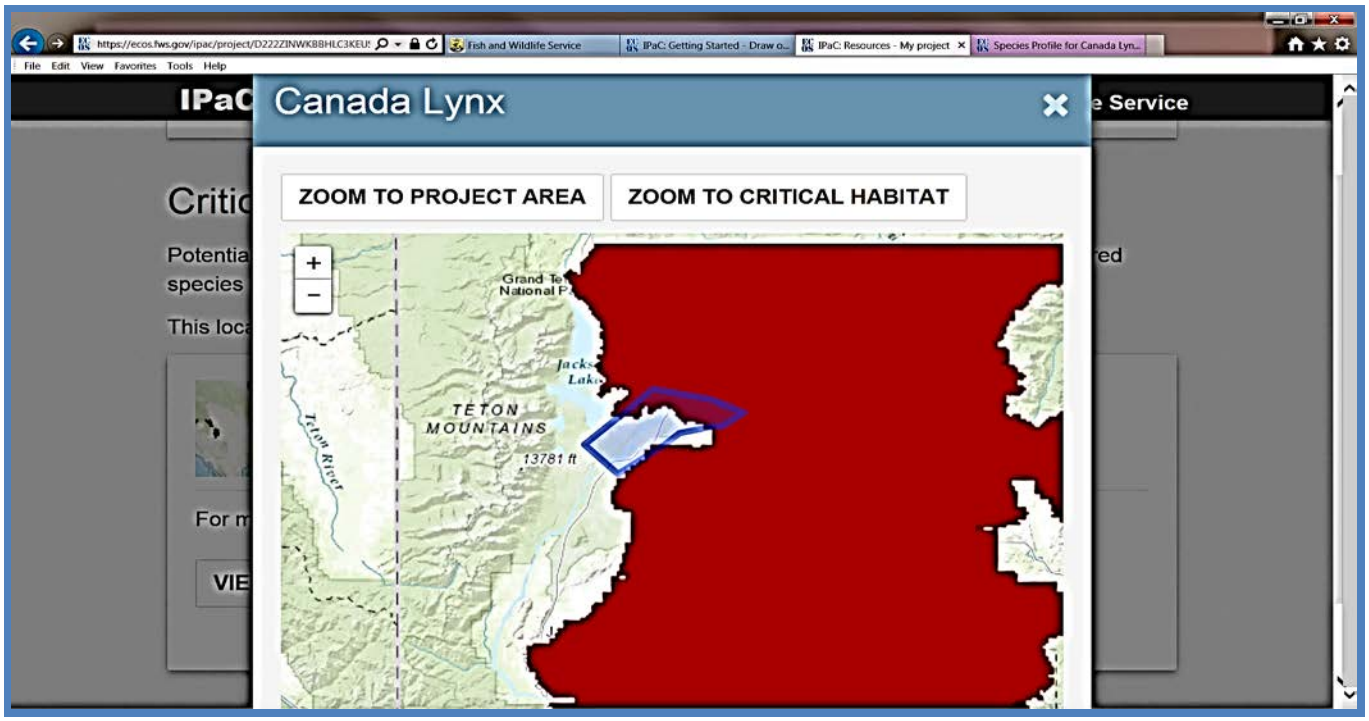
You can see if there is any designated critical habitat in or near your project/action area. As shown in screenshots 9 and 10 above, by scrolling down to the **CRITICAL HABITATS** heading there are links to see if designated critical habitat is present (see screenshot 15 below).

Screenshot 15.



Clicking on the **VIEW LARGER MAP** button will show your project/action area and if there is designated critical habitat in or nearby the action area. You can zoom in to see your project/action area you identified previously to see if there is designated critical habitat for that species (see screenshot 16 below).

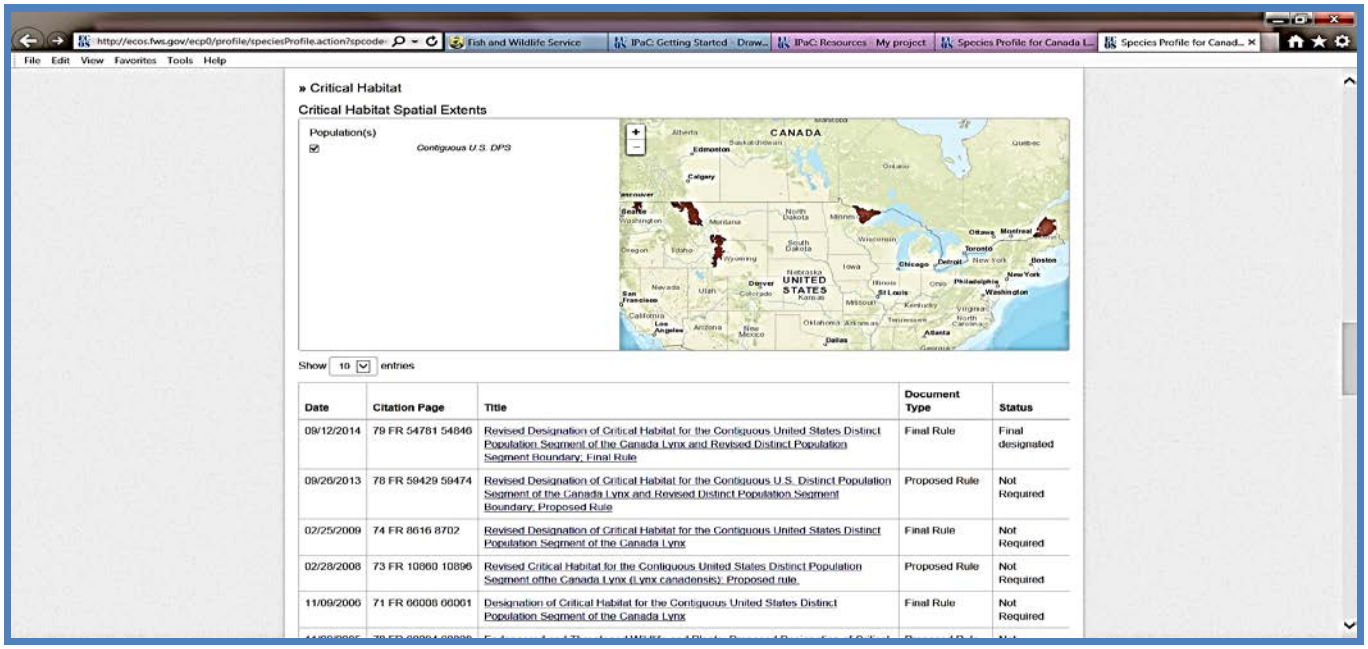
Screenshot 16.



Other Information in ECOS

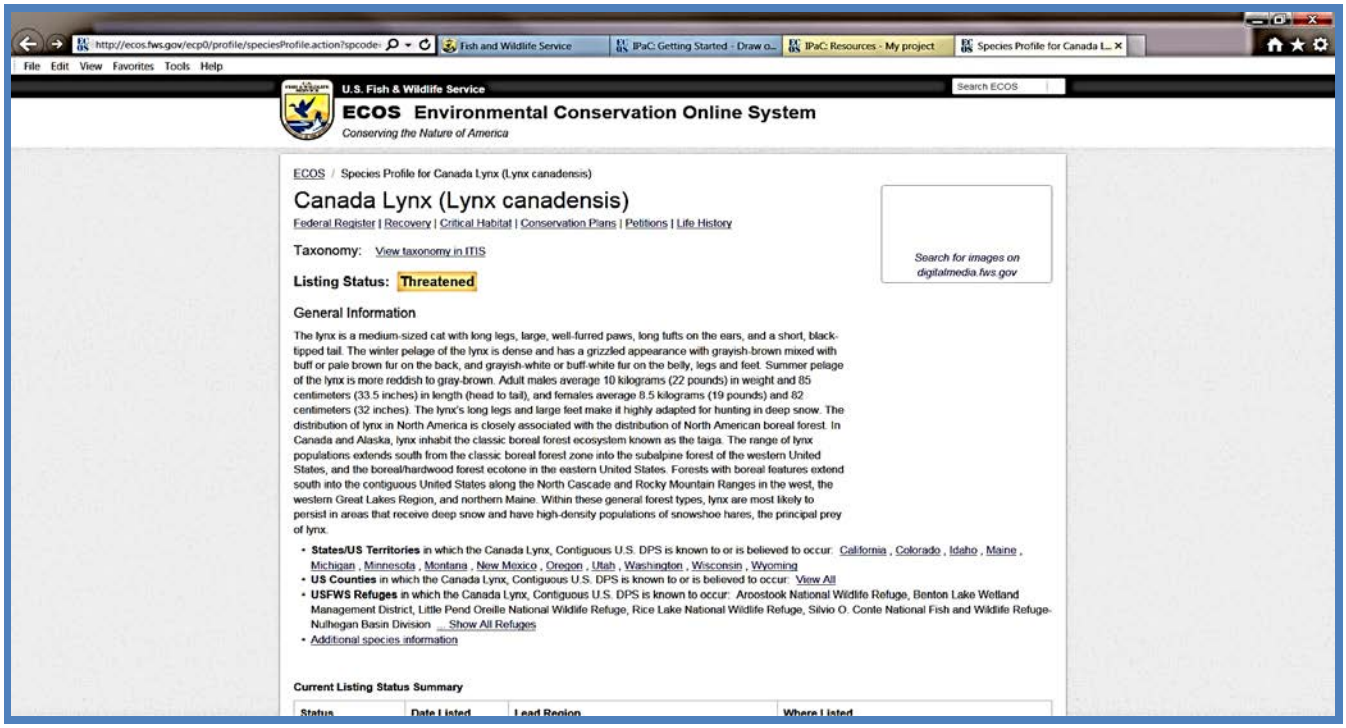
Clicking on the **ECOS SPECIES PROFILE** button takes you to the **Environmental Conservation Online System (ECOS)** which contains information and valuable links to *Federal Register* publications, recovery plans, important documents pertaining critical habitat designations, and other information for this species (see screenshot 17 below).

Screenshot 17.



The **ECOS** page contains valuable information. Clicking on individual species links will provide information on species' life history and many other valuable resource. These links accesses species information such as species profiles, *Federal Register* notices of important listing actions, recovery plans, etc. Below is an example of a species profile for Canada lynx with species and habitat information is found. For some species, a vast amount of information can be found that will help you in writing your BA. For example, you can use the ***Species Status and Biology*** section for your BA (Section 6.2). Many links to resources and documents can be accessed (see screenshot 18 below).

Screenshot 18.

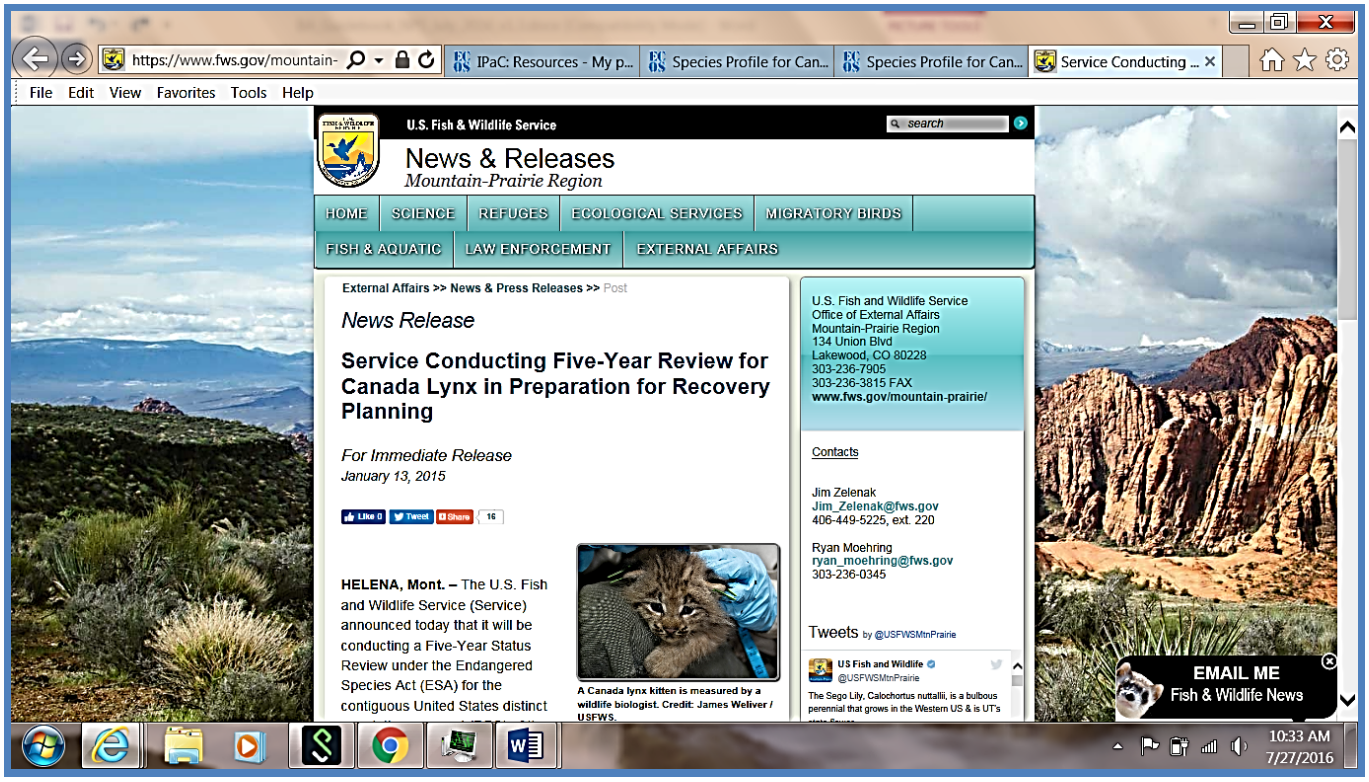


Here is another example showing the link to the **NatureServe** website accessed from a link on the USFWS' IPaC website which can also provide useful information and be used as a reference in your BA and analysis (see screenshot 19 below).

Screenshot 19.

There are many **other links and websites** accessible here that will provide a wealth of information for you to use (see screenshot 20 below).

Screenshot 20.



Appendix F – Section 7 Structured Coordination Process

SECTION 7 STRUCTURED COORDINATION PROCESS

(Excerpts from USFWS Memo dated December 2009)

One of the most effective factors for an efficient and timely section 7 consultation is for the USFWS/NMFS and action agencies (NPS and other federal agencies) to **coordinate early and often** throughout the consultation and design processes. This document is designed to assist consultation participants in conducting the appropriate level of coordination at the appropriate times in the consultation process. The guidance presented in this document is optional and is not intended to supersede the procedures presented in the Endangered Species Consultation Handbook (USFWS/NMFS 1998); however, it is strongly recommended that these coordination steps be implemented to help ensure the establishment of a complete administrative record and a smooth consultation process.

The guidance below in this appendix describes **sixteen steps**, in **four distinct stages**, for efficiently coordinating the section 7 consultation process. Additional cross references (green text boxes) for NEPA and Permitting development have been incorporated to ensure parallel process development at each section 7 step.

FLEXIBLE USE

- Optional "initialing" steps provide opportunities for achieving and documenting collaborative agreement among Project Coordination Team members.
- Proposed actions that require section 7 consultation vary in complexity and collaboration needs. The USFWS/NMFS and action agency should jointly consider these factors when determining the extent to which this process applies to project development. This process is recommended for complex projects, contentious projects, or those where development needs to be tracked by multiple parties.

The sixteen steps described below are intended to occur during the stages of project development represented by each box on the below flow chart (SECTION 7 STRUCTURED COORDINATION PROCESS). If steps cannot be accomplished as prescribed, consultation can still proceed; however, the extent to which it can be streamlined may be limited. Streamlining may also be limited if the USFWS/NMFS believes that there is a high likelihood that the proposed activity may jeopardize the continued existence of a listed or proposed species or destroy or adversely modify designated or proposed critical habitat. Regardless of the process used, the information required to initiate consultation remains the same [50 CFR 402.14(c)]. To provide a common understanding of project development, this document may be used as a progress tracking tool.

EARLY PROJECT PLANNING

STEP 1. Project Idea

As early as possible, identify when a project is on the horizon, if it could be considered a federal activity, and if it could affect a listed resource. In implementing this potential project, could there be a federal permit, funding, or will a federal agency be involved in carrying it out? If so, then it is important to enter into the structured section 7 pathway for that action as soon as the project is identified for consideration.

NEPA and Permitting Processes:

- Purpose and Need Development

STEP 2. Visit IPaC – obtain species list

Use the USFWS' IPaC website is located at http://ecos.fws.gov/ipac/ (see Appendix E of this Guidebook). When possible, using the interactive menus, identify the location of the proposed project, obtain a species list, and begin development of a preliminary draft map of the proposed action.

Species-specific information and Best Management Practices (BMPs) are in various stages of development in IPaC. Where possible, retrieve species-specific information of importance for project development considerations. Basic species ecological information can be obtained as well as BMPs that can be incorporated into the project design to avoid, minimize, or mitigate potential impacts. BMPs may be general or species-specific, depending upon the activity type and location.

If IPaC is not available, species lists may be available through local Field Office (USFWS/NMFS) websites or they may be obtained through a written request. Ecological Services Field Offices are identified on the USFWS' website at https://www.fws.gov/offices/.

NEPA and Permitting Processes:

- Preliminary design
- Draft map
- Begin Draft Description of Proposed Action and Alternatives

STEP 3. Contact USFWS Ecological Services (or NMFS)

Once the basic information provided by IPaC or a species list is obtained, contact the local USFWS/NMFS regarding the potential action and timeframes. This step will be the beginning of a relationship that will last for the next 13 steps (and beyond). The initial contact should be a phone call followed up by an email introduction.

At the time of initial contact, share the preliminary draft map (in electronic form if available). The USFWS/NMFS may provide guidance as to which protocols to use for listed species surveys. It may be beneficial to have updated local species surveys prior to beginning step 4, and often there is a very specific window of opportunity for surveys that must be budgeted into project planning. Remember that federally funded or permitted exploratory activities that may affect listed species and that take place prior to project implementation should be coordinated with the USFWS/NMFS (and may require appropriate authorization, as well as permits for entry). If species surveys cannot be completed, it may be appropriate to assume species presence in all areas of suitable habitat within the species' range.

NEPA and Permitting Processes:

- Scoping letters to interagency partners
- Share draft Description of Proposed Action and Alternatives and maps
- Coordinate permits and authorizations for pre-project reconnaissance

STEP 4. Collaboration & Coordination

Project development meetings, led by the action agency, should occur throughout the early planning process. Collaborative in nature, and supported by site visits and maps, these meetings provide opportunities to jointly modify and clarify the proposed action. For optimal results, these meetings should be focused toward clarifying objectives of each team member, identifying challenges, and determining the means for resolution. The first coordination meeting, or "JOINT KICKOFF MEETING," should identify the members of the Project

Coordination Team, as well as the Decision-Makers Team, and the First and Second Elevation Teams. The names of these individuals should be entered into Exhibit 30 (see below) to identify relationships and ensure coordination throughout project development.

Exhibit 30.

	Project Coordination Team (staff level technical team)	Decision-makers Team	Elevation Team
USFWS-ES			
Action Agency			
(list other			
appropriate			
Team members			
here)			

Many section 7 consultations involve non-federal entities who require some form of approval, such as a permit or license, from a federal agency in order to implement a proposed action. These entities are known as "applicants" in the section 7 consultation process and are afforded certain rights under section 7 of the Act. The action agency-identified applicants may participate in the consultation process with the action agency. For this reason, throughout this document when the term "action agency" is used, the intent is to include any action agency-supported applicants as well.

After collecting as much information as possible regarding species and habitat occurrences in the proposed project's action area (see Appendix D of this Guidebook), the Project Coordination Team may also schedule a site visit to gather more information. Depending on the location, it may be appropriate to include land managers and species experts. If requested, the local USFWS/NMFS or the Project Coordination Team (identified above) can help recommend agencies and individuals to add to the list of invitees. By including the right participants up front, decisions can be guided with the greatest level of expertise as early in the project development process as possible. Site visits should occur prior to locking in a final project design if effects to listed species may result. With on-site coordination, proposed actions can be modified to avoid and/or minimize impacts to listed resources (all listed species and designated critical habitat) to the greatest extent possible. USFWS/NMFS staff may be able to provide a suite of choices for project proponents to consider, including potential mitigation methods for unavoidable impacts. The collaborative atmosphere that can be developed while discussing options in the field can often result in creative solutions that were not previously apparent. Site visits may occur several times throughout project development and should be scheduled collaboratively. Anticipate several weeks for scheduling, and ensure that each participant has the authority to speak for their agency.

To facilitate efficiency in draft development, electronic copies of draft project descriptions, maps, and plan views should be shared amongst Team members. Group decisions should be documented for each agency's administrative record. BMPs should be documented at this step, resulting in a common understanding of unavoidable impacts. Mitigation needs for unavoidable impacts should be agreed upon as well. If the USFWS/NMFS believes that anticipated impacts are "***likely to jeopardize the continued existence of a listed or proposed species***" or will "***adversely modify designated or proposed critical habitat***", the USFWS/NMFS will advise the action agency of this potential in writing.

BMP discussions at this step may result in further modification of the action once the choices between avoidance, minimization, and mitigation are apparent. For example, upon understanding the mitigation BMPs that may be warranted to offset a particular effect, the action agency may decide to implement an avoidance or minimization BMP that was not originally included because this choice results in a net cost savings for the project. Project development coordination also includes conference calls, email exchanges, and other avenues for collecting information and documenting decisions.

It is recommended that the Project Coordination Team establish a timeline with milestone dates or target due dates for subsequent meetings and steps. This could assist in accountability and should facilitate a more effective process.

Once the Project Coordination Team has completed a sufficient number of site visits and EARLY PROJECT PLANNING meetings to begin drafting a BA, a milestone meeting should occur for Team members to initial-off that progress is sufficient to move into the next phase, PRE-CONSULTATION. By initialing this step, a common understanding is documented for the administrative record and all parties acknowledge that collaborative meetings have resulted in sufficient information exchange to proceed to the next phase of the process.

NEPA and Permitting Processes:

- Identify Agency roles
- Identify Cooperating Agencies
- Identify Permits needed
- Avoidance, Minimization, Mitigation options incorporated into Alternatives
- Notice of Intent to Prepare EIS
- Public Scoping
- Public Meeting

PRE-CONSULTATION

STEP 5. DRAFT Action Description

In this step, the action agency, with the assistance of the USFWS/NMFS, writes the description of the action based upon information and decisions obtained during implementation of previous steps. The draft action description should be shared electronically throughout this step and should include:

- Maps of the project footprint, action area, including associated areas (e.g., staging areas, borrow sites, etc.), and access roads,
- A complete description of all aspects of the proposed project, including:
  - Avoidance BMPs,
  - Minimization BMPs,
  - Mitigation BMPs,
- A monitoring plan, including reporting format and due dates, and
- Long-term maintenance activities

At this stage it is very important to reach a common understanding that will form the basis for all other sections of the BA and other environmental review processes. To accomplish this, the action should be "**deconstructed**" into its individual component or parts. For example, activities associated with construction of a building may include constructing a road to the facility, clearing habitat on the building site, developing staging and fuel storage areas, implementing stream crossings, etc. Each of these aspects of the project could have different potential impacts. By "deconstructing" the proposed project into its component parts, it becomes much easier to organize and evaluate the potential impacts of the project as a whole.

It is understood that designs may change throughout project development. As long as this step remains collaborative, each agency is more likely to be able to accommodate these changes and provide necessary responses in a timely fashion, thus minimizing the potential for future delays.

NEPA and Permitting Processes:

- Refine Purpose and Need
- Stakeholder Coordination
- Refine Alternatives, resolve issues

STEP 6. FINAL Action Description

The final action description is the result of all known information to date and has undergone review from all appropriate parties (action agency, USFWS/NMFS, land management agencies, etc.). This is the action description that will be moved forward into BA development (and NEPA and permitting documents) and it must include all of the bulleted items listed in step 5. If the proposed project changes after this time, the process will either return to this point before proceeding (though it may take less time to redo the subsequent steps), or it will switch to the standard consultation process (not expedited). As effects are analyzed in step 7, the action area may change, potentially resulting in changes to the action description. The USFWS/NMFS should assist the action agency, as needed. If the concern that the action is likely to jeopardize listed species or adversely modify or destroy critical habitat identified in step 4 has not been addressed through project modifications and/or BMPs, the Project Coordination Team should initiate the elevation process. The Structured Coordination Process will be suspended until the issue is resolved.

NEPA and Permitting Processes:

- Preliminary Draft EA/EIS development in coordination with Cooperating Agencies
- Begin drafting Permit requests for construction

STEP 7. Assemble DRAFT BA

Coordinate with your NPS Endangered Species Coordinator as needed. Using the format as discussed in this Guidebook and templates (Appendix H), develop the below sections of the draft BA. BA sections should include:

1. **Introduction (Purpose of BA, Current Management Direction)** – include background of the action and brief overview of management direction.
2. **Consultation History –** include what coordination has taken place to date with USFWS/NMFS regarding his action and consultation.
3. **Proposed Action Description** – this should be the exact text agreed upon in step 6 (above). Action area should be defined.
4. **Action Area Description** – describe the vegetation and topographic features of the action area.
5. **Pre-field Review –** using IPaC species list, determine which species/habitat and designated critical habitat may be present or affected by the proposed action and which species can be excluded from further analysis.
6. **Evaluated Species Information –** Include a brief summary of the biology of the species, important limiting factors, and status of the species within the action area.
7. **Environmental Baseline** – this may be developed from similar sections in the draft NEPA document. Include previous consultations completed within the action area, and past and ongoing actives.

8. **Effects of the Action** – this may be very straight-forward by this time, or it could be extremely complex. Coordinate with the USFWS/NMFS to develop a list of effects anticipated from the proposed project. (It is very important to reach a common understanding of potential project effects before proceeding). The USFWS/NMFS can subsequently assist in recommending ways to analyze those effects, if needed. Effects analyses in BAs should include potential direct, indirect, and cumulative effects, with discussions focusing on the nature of overlap in time and space of the stressors[9] resulting from the proposed action on listed resources. An exposure analysis (a matrix for identifying the overlap of species needs and project effects) is a useful tool for laying out this relationship in a simple understandable way.
9. **Effect determination Summary** – summarize your effect determinations from the previous section in a table.
10. **Additional Conservation Recommendations** – if there are any additional recommendations not included in the proposed action already.
11. Need for Re-Assessment Based on Changed Conditions – if new information or species/critical habitat is identified in the action area that were outside of the bounds of your BA.
12. **Literature Cited –** cite sources used in the BA.

NEPA and Permitting Process:

- Collaboration with interagency partners
- Request review of the Draft BA by NPS Regional Endangered Species Coordinator
- Request review of the Draft BA by USFWS/NMFS

STEP 8. Final BA

Completion of this step means that the DRAFT BA has been reviewed by all appropriate parties. It is likely that draft revisions will be transmitted back and forth in step 7 as language is adjusted and issues are resolved. Step 8 involves coming to agreement on the FINAL version of the BA, after all comments and reviews are incorporated from the NPS Regional Endangered Species Coordinator, USFWS/NMFS, or other. The USFWS/NMFS will make decisions regarding the appropriateness of continuing in the process on a case-by-case basis after evaluating the nature and scope of the disagreements. For example, while the parties may disagree on the potential for a specific life stage of a species to be impacted, upon further evaluation the USFWS/NMFS may determine that because subsequent life stages are also anticipated to be impacted, overall differences in impacts to the species will be minimal.

Electronic sharing during this step is critically important to expediting the next series of steps. The USFWS/NMFS could be drafting portions of the BO as the BA is being finalized, thus jump-starting the consultation process.

NEPA and Permitting Processes:

- Incorporate BA into NEPA and Permitting documents

[9] A stressor is a stimulus that negatively affects a species. Stressors can be physical (e.g., sedimentation, water removal, litter), chemical (e.g., contaminants, herbicides, hormones), and active (e.g., vehicle strikes, aerial obstructions, entrapment in ditches).

CONSULTATION

STEP 9. Request (a.) Informal or (b.) Formal Section 7 Consultation to USFWS/NMFS

In this step, the action agency requests in writing initiation of section 7 consultation with the USFWS/NMFS:

a. Informal Consultation ("***may affect - not likely to adversely affect***" determinations for all listed species/critical habitat)

b. Formal Consultation ("***may affect***" with one or more effects that are "***likely to adversely affect***")

The agreed-upon BA from step 8 is submitted by the action agency along with a transmittal letter requesting initiation of consultation to USFWS/NMFS. The hardcopy request should be addressed to the USFWS/NMFS Field Supervisor, or other agreed upon contact, and mailed; however, emailing an additional copy to the USFWS/NMFS consultation biologist can facilitate faster responses. Note that consultation is expedited in part through implementing parallel processes to shorten turn-around times. The USFWS/NMFS should be immediately notified of any changes to the initiation package that occur during the action agency's internal review process.

NEPA and Permitting Processes:

- Prepare and Publish Notice of Availability of Draft EIS
- Distribute Draft EIS

STEP 10. USFWS/NMFS Response

a. Informal consultation ("concurrence" letter) – The USFWS/NMFS responds to the informal consultation request with a letter of concurrence for "***not likely to adversely affect***" determinations for all listed species or habitats. This step should take no more than 30 days of receipt of this request if the information submitted is complete and the USFWS/NMFS agrees with this determination. Once concurrence is received, skip to step 13.

b. Formal consultation (Draft BO) – The USFWS/NMFS provides the action agency with a letter or memo, as appropriate, stating that all information necessary to initiate formal consultation has been received (this letter/memo starts the "consultation clock").

NEPA and Permitting Processes:

- Apply for Special Use Permits

STEP 11. DRAFT Biological Opinion (BO)

The USFWS/NMFS provides a courtesy copy of the Draft BO to the action agency. Due to the coordination completed during the earlier steps, it is anticipated that any revisions would be minor in nature. If, for some unforeseen reason, issues are raised here, the process should return to steps 7 and 8, or shift to the standard consultation process. This would mean that agreement was not actually achieved during the earlier steps and additional coordination may be needed.

Upon review, action agency comments are returned to the USFWS/NMFS (phone calls, emails, and discussion are encouraged).

NEPA and Permitting Processes:

- Public Meeting
- Public Review Period ends
- Collaborate on Public Comments with Cooperating Agencies
- Public Review for Special Use Permits

STEP 12. FINAL BO Issued

The USFWS/NMFS finalizes the BO considering feedback from the action agency, applicant, and the USFWS/NMFS, as appropriate. The BO is then signed and issued. From the receipt of a complete consultation package (an acceptable BA with sufficient information included), the USFWS/NMFS has 135 days to finalize a BO and complete section 7 consultation.

NEPA and Permitting Processes:

- Review and Respond to comments
- Prepare and Publish Final EIS
- Public Review – USFWS Refuge Compatibility (as appropriate)
- Public Review - NEPA
- Publish ROD

PROJECT IMPLEMENTATION/POST REPORTING

STEP 13. Project and BMP Implementation, and Monitoring and Reporting

The project is implemented as proposed. In an effort to achieve a common understanding of compliance issues, it is helpful to invite the USFWS/NMFS and others to pre-construction meetings. To facilitate communication, points-of-contact should be provided to all appropriate agencies. During this step, the BMPs should be monitored for effectiveness, and on-the-fly project changes reported immediately to appropriate contacts.

STEP 14. Communication with USFWS/NMFS and Federal Agency

Supporting step 13, this step ensures that communication lines remain open and progress is updated regularly. It is also appropriate at this time to invite the USFWS/NMFS and others to the project site for on-the-ground discussions regarding assumptions, BMP efficacy, and other coordination issues.

STEP 15. Project Completion

a. **Complete follow-up documentation** – Although progress reports should be provided throughout construction as specified in the consultation documents, this step requires completion and submittal of the final report, as described in the monitoring and reporting section of the agreed-upon action description of the BA and/or BO (please refer to step 5).

b. Mitigation projects – The mitigation component of the project should be initiated as soon as possible during project implementation (or before, when possible). In some cases, mitigation requires success criteria monitoring, and thus extends out in time beyond actual construction activity. Annual reports may be required to document success, and coordination meetings may be required if there is an adaptive management component.

STEP 16. Post-project/Long-term

a. USFWS Updates environmental baseline – Using the final reports submitted in step 15, the USFWS/NMFS now has the information needed to update species and habitat baselines. This can be adjusted during project implementation, but should be completed upon receipt of final reports.

b. Long-term effects monitoring and ecosystem-level tracking – These are joint steps agreed upon during consultation to assist the action agency in complying with section 7(a)(1) of the Act. This step may require both USFWS/NMFS and action agency efforts.

Appendix G – Section 7 Interagency Cooperation

The spirit of section 7 of the Endangered Species Act of 1973, as amended (ESA or Act) is interagency cooperation. Below is a review, the specific portions of section 7 of the ESA to assist action agency biologists.

Proactive conservation efforts:

Section 7(a)(1):

> Requires federal agencies to use their authorities to further the conservation of listed species. As a federal land management agency the action agency has the significant responsibility of ensuring that agency actions do not preclude the conservation of listed species.
>
> All Federal agencies have an intrinsic duty, above and beyond their primary mission, to recover species found to be at the brink of extinction and avoid actions that may cause harm those species.

Consultation requirements:

Section 7(a)(2):

> Requires federal agencies to consult with the USFWS/NMFS to ensure that they are not funding, permitting, or authorizing actions likely to jeopardize the continued existence of listed species or destroy or adversely modify designated critical habitat.
>
> Section 7(a)(2) imposes a procedural obligation on the action agency (action agency) to consult regarding the effect of the planned action on listed species.
> In summary, the ESA section 7(a) requires federal agencies to "**consult**" with the appropriate Secretary to ensure their actions "***are not likely to jeopardize species or adversely modify critical habitat***".
>
> For species under the jurisdiction of the Secretary of the Interior, the USFWS/NMFS is the consulting agency. For species under the jurisdiction of the Secretary of Commerce, the NOAA-NMFS is the consulting agency. It should be noted, however, that recently, in areas of the U.S. where USFWS and NOAA-NMFS aquatic species overlap, these agencies have been directed to work together in designating the lead "**consultation**" agency for projects involving species under the jurisdiction of both agencies (USFWS and NMFS).

Section 7(a)(4):

> Requires federal agencies to "**Conference**" with the USFWS/NMFS on any agency action that is likely to "***jeopardize the continued existence of any proposed species or result in the destruction or adverse modification of critical habitat proposed to be designated***".

Section 7(d) of the ESA: The duty to avoid foreclosure of alternatives during consultation

> Federal agencies must use their authorities to further the conservation of listed species. As a federal land management agency the action agency has the significant responsibility of ensuring that agency actions do not preclude the conservation of listed species.

THE THREE PRIMARY COMPONENTS OF THE SECTION 7 PROCESS

1. **Species Lists** – A request for a species list is mandatory for major federal actions, unless the agency sends the USFWS/NMFS its own list for concurrence. The USFWS/NMFS will concur with a submitted list or will provide a list that identifies listed, proposed, and candidate species or critical habitat that may occur in the vicinity of the project. Potential impacts to these species must be identified and evaluated in the action agency's Biological Assessment (BA).

2. **Biological Assessments** – Under ESA, a BA is required for any "**major construction activity**". It must analyze the potential effects of the project on listed species and critical habitat and justifies a specific ESA **effect determination**. For actions other than a "major construction activity," the action agency must still evaluate the potential for adverse effects and consult with the USFWS/NMFS, if necessary. This analysis can also generically be referred to a BA regardless if it is for a major construction activity or not.

3. **Consultations** – required for federal actions "***likely to affect***" a listed species or its designated critical habitat.

    a. **Early Consultations**: Optional and used to reduce the likelihood of conflict between listed species or critical habitat and a proposed project.

    b. **Informal Consultations**: Process to assist federal agencies in determining if formal consultation is required. It is also the process through which the action agency requests USFWS/NMFS concurrence with a "***not likely to adversely affect"*** determination.

    Note: The action agency is not required to consult with the USFWS/NMFS for "***no effec***t" determinations (more on this later…)

    c. **Formal Consultations**: Required for actions that "***may adversely affect"*** a listed species or designated critical habitat. Involves the submittal of a BA to the USFWS/NMFS and the receipt of a Biological Opinion (BO) from the USFWS/NMFS.

    d. **Emergency Consultations**: Special emergency consultation provisions allow for an "**after the fact**" consultation in the case of emergencies situations involving "**Acts of God**" such as disasters, casualties, national defense or security emergencies, etc.

    e. **Conferences**: Required for federal actions "***likely to jeopardize the continued existence of a proposed species or adversely modify proposed critical habitat***".

It should be noted that the components above may overlap. For example, a BA may conclude that a proposed activity is "***not likely to adversely affect***" one listed species but "***may adversely affect***" another. In this situation, the action agency would submit the BA and request USFWS/NMFS concurrence with the "***not likely to adversely affect***" determination; however, at the same time the action agency should also request formal consultation with the USFWS/NMFS due to the "***likely to adversely affect***" determination. In other words, more than one effect determination and more than one species/critical habitat can be included in the same document.

SPECIFICS OF THE CONSULTATION PROCESS

Early Consultation

Section 7(a)(3) of the Endangered Species Act specifies "*…a Federal agency shall consult with the Secretary of Interior on any prospective agency action at the request of, and in cooperation with, the prospective permit or license applicant if the applicant has reason to believe that an endangered species or a threatened species may be present in the area affected by the project and that implementation of such action will likely affect such species.*"

Section 7(a)(3) of the Act was added in the 1982 amendments, and is addressed in section 402.11 of the regulations. Early consultations are intended to reduce the potential for conflicts between listed species or critical habitat and proposed actions. Early consultation is an optional process that occurs before a prospective applicant files an application for a federal permit or license, frequently referred to as pre-application. To qualify, a prospective applicant must certify in writing to the federal agency that:

1. He/she has a definite proposal outlining the action and its effects; and
2. He/she intends to implement the proposal if it is authorized.

If the prospective applicant provides the action agency with this information in writing, the section 7 regulations require the action agency to initiate early consultation with the Service's. This request contains the same information required for formal consultation (50 CFR §402.14c). If the action is a major construction activity, a BA is required. Action agencies conducting early consultations use the same procedures and have the same responsibilities as they do for formal consultations. Although early consultation is conducted between the USFWS/NMFS and the action agency, the prospective applicant should be involved throughout the process.

Essentially, early consultation is a "formal consultation" that is carried out before any permit or license application is submitted to the Forest action agency).

Informal Consultation

Defined in 50 CFR §402.02 as: an optional process that includes all discussions, correspondence, etc., between the USFWS/NMFS and the federal agency or the designated non-federal representative prior to formal consultation, if required. See Figure 1 in Guidebook for a diagram of the informal consultation process.

Informal consultation is an informal procedure that:

1. Includes all contacts prior to formal consultation (remember, document all calls, meetings, etc. in the Administrative Record for the project; this may become important later on in the process);
2. Clarifies whether and what listed, proposed, and candidate species or designated or proposed critical habitats may be in the action area;
3. Determines what effects the action may have on listed/proposed species or critical habitats;
4. Explores ways to modify the action to reduce or remove adverse effects to the species or critical habitats, This should be done during the final development stages of the BA.

Regulations include the use of informal consultation as a way to obtain an exception to formal consultation if the USFWS/NMFS concurs in writing with the federal agency determination that its' action is "***not likely to adversely affect***" listed species or critical habitat.

If the adverse effects of the proposed activity cannot be significantly reduced and/or eliminated, or incidental take is likely to occur, formal consultation is required.

Informal Consultation Time-lines
Although not mandated by regulation, USFWS/NMFS policy recommends that they strive to respond to informal consultation requests within 30 days. While there is no overall timetable for informal discussions, timeframes are established for some individual elements (see Figure 2).

Formal Consultation

The requirement to enter into the formal consultation process with USFWS/NMFS results from an affect determination of "***may affect, likely to adversely effect***" for a listed species/designated critical habitat. See Figure 2 in Guidebook for a diagram of the formal consultation process.

The Biological Opinion (BO) written by the USFWS/NMFS as a result of the formal consultation process determines whether a proposed action is "***likely to jeopardize the continued existence of a listed species (jeopardy) or destroy or adversely modify critical habitat (adverse modification***)".

BAs written for projects "***likely to adversely affect***" a listed species or destroy or modify critical habitat should follow the format for a BO outlined in the USFWS/NMFS' *Endangered Species Consultation Handbook, March 1998*. An outline of the formal consultation process is diagramed in Figure 3.

Formal Consultation Timelines
Several legal time frames have been established for the formal consultation process (Figure 3); they include:

1. The USFWS/NMFS is required to notify the action agency within 30 days of receipt of the BA that more information is required to enter into formal consultation (50 CFR 402.14c).
2. Once an adequate BA is received, FWS has 90 days to complete a Draft BO.
3. Once a review of the Draft BO is completed by the action agency, the USFWS/NMFS has an additional 45 days to produce a Final BO.

It doesn't have to take that long!! On a case by case basis, your local USFWS/NMFS office can often help you avoid delays by responding more quickly; however, you need to do your part. How?:

- Is your communication with the USFWS/NMFS field office working well?
- Is your consultation biologist familiar with the action and the need for quick response?
- Have you provided the information they will need to support their concurrence letter?
- Do your "emergencies" occur often?

The answer to the first three questions should be YES, the last should be NO.

Remember:
What constitutes an emergency on the part of the action agency, does not necessarily constitute an emergency on the part of the USFWS/NMFS.

Emergency Consultation:

Section 7 regulations recognize that an emergency (natural disaster or other calamity) may require expedited consultation (50 CFR §402.05). Where emergency actions are required that may affect listed species and/or critical habitats, a federal agency may not have the time for the administrative work required by the consultation regulations under non-emergency conditions. Emergency consultation procedures allow action agencies to incorporate listed species concerns into their actions during the response to an emergency.

From the ESA CFR §402.05 Emergencies.

(a) Where emergency circumstances mandate the need to consult in an expedited manner, consultation may be conducted informally through alternative procedures that the Director determines to be consistent with the requirements of sections 7(a)-(d) of the Act. This provision applies to situations involving "Acts of God", disasters, casualties, national defense or security emergencies, etc.

(b) Formal consultation shall be initiated as soon as practicable after the emergency is under control. The federal agency shall submit information on the nature of the emergency actions(s), the justification for the expedited consultation, and the impacts to endangered or threatened species and their habitats. The USFWS/NMFS will evaluate such information and issue a BO including the information and recommendations given during the emergency consultation."

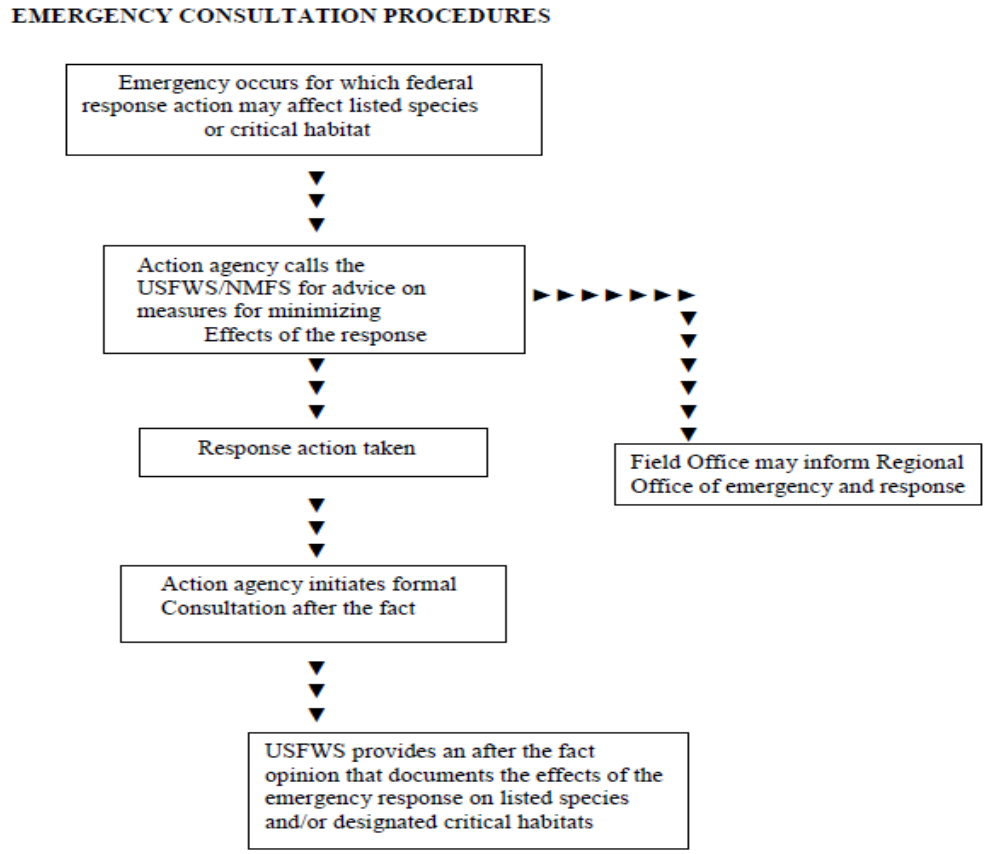
As stated above, an emergency is a situation involving an "Act of God", disasters, casualties, national defense or security emergencies, etc., and includes responsive activities that must be taken to prevent imminent loss of human life or property. Predictable events typically do not qualify as emergencies under the section 7 regulations unless there is a significant unexpected human health risk.

Remember:
Under no circumstances should a USFWS/NMFS representative obstruct an emergency response decision made by the action agency where human life is at stake.

Figure 20 displays on outline of the Emergency Consultation Process. The initial stages of emergency consultations usually are done by telephone or facsimile, followed as soon as possible (within 48 hours, if possible) by written correspondence to the USFWS/NMFS. This provides the USFWS/NMFS with an accurate record of the telephone contact. This record also provides the requesting agency with a formal document reminding them of the commitments made during the initial step in emergency consultation. During this initial contact, or soon thereafter, the USFWS/NMFSs' role is to offer recommendations to minimize the effects of the emergency response action on listed species or their critical habitat (the informal consultation phase). Again, the USFWS/NMFS SHOULD NOT stand in the way of the response efforts.

As soon as possible after the emergency is under control, the action agency initiates formal consultation with the USFWS/NMFS, if listed species or critical habitat have been adversely affected. Although formal consultation occurs after the response to the emergency, procedurally it is treated like any other formal consultation. If only informal consultation is needed, i.e., species or habitats were affected, but not adversely, then normal informal consultation procedures are followed. From a USFWS/NMFS perspective, if this initial review indicates the action may result in jeopardy or adverse modification, and no means of reducing or avoiding this effect are apparent, the agency should be so advised, and the USFWS/NMFS's conclusions documented.

Figure 20. Emergency consultation process.



Conference

> Section 7(a)(4) of the Act specifies that *"Each Federal agency shall confer with the Secretary of the Interior on any agency action which is likely to jeopardize the continued existence of any species proposed to be listed…or result in the destruction or adverse modification of critical habitat proposed to be designated for such species. This paragraph does not require a limitation on the commitment of resources as described in subsection (d)."*

Section 7(a)(4) was added to the Act to provide a mechanism for identifying and resolving potential conflicts between a **proposed** action and a **proposed** species or **proposed** critical habitat at an early planning stage. While consultations are required when the proposed action may affect listed species, a conference is **required only** when the proposed action is likely to jeopardize the continued existence of a proposed species or destroy or adversely modify proposed critical habitat. However, federal action agencies may request a conference on any proposed action that may affect proposed species or proposed critical habitat. The USFWS/NMFS can also request a "**Conference**" after reviewing available information suggesting a proposed action is likely to jeopardize proposed species or destroy or adversely modify proposed critical habitat.

Conference can be either:

1. Informal (resulting in a "**Conference Report**") or,
2. Formal (resulting in a "**Conference Opinion"**).

Informal Conference
Conference may involve informal discussions among the USFWS/NMFS, the action agency, and the applicant (if any). During the **Conference**, USFWS/NMFS may assist the action agency in determining effects and may advise the action agency on ways to avoid or minimize adverse effects to proposed species or proposed critical habitat (Figure 5).

Conference Report
Following informal **Conference** with the action agency, the USFWS/NMFS issues a **Conference Report** containing recommendations for reducing adverse effects. These recommendations are advisory because the action agency is not prohibited from jeopardizing the continued existence of a proposed species or destroying or adversely modifying proposed critical habitat until the species is listed or critical habitat is designated. However, as soon as a listing becomes effective, the prohibition against "***Jeopardy"*** or ***"Adverse modification"*** applies regardless of the action's stage of completion. Therefore, action agencies should utilize the **Conference Report's** recommendations to avoid likely future conflicts.

Formal Conference
Action agencies may request formal conference on a proposed action. Formal conferences follow the same procedures as formal consultation, following the contents and format of a BO; however, a **Conference Opinion** is issued at the conclusion of the conference. See Figure 21 for a schematic of the Conference Process.

Remember:
The one important difference between a BO and a Conference Opinion is that the incidental take statement (ITS) provided with a Conference Opinion does not take effect until the USFWS/NMFS adopts the conference opinion as a BO on the proposed action – and this will occur after the species is listed.

Timeframes for Formal Conferences
Section 7 regulations provide no specific schedule for Conferences. By USFWS/NMFS policy; however, formal conferences will follow the same timeframes as formal consultations.

Remember:

If a proposed species is listed during the Conference, and the proposed action still may affect the species, the formal conference ends and formal consultation begins. The subsequent formal consultation timeframes begin with the request from the action agency for initiation of formal consultation. Be aware of this, avoid project delays by keeping current on the status of listing decisions for species/habitat that are proposed within the action area.

Conference included in a formal consultation

When both listed and proposed species, or designated and proposed critical habitats are affected by a proposed action, the action agency may choose to both enter into formal consultation for the listed species/habitat and enter into **Conference** for the proposed species/habitat found within the action area of a particular project. The USFWS/NMFS will respond with a combined **BO** and **Conference Opinion** document.

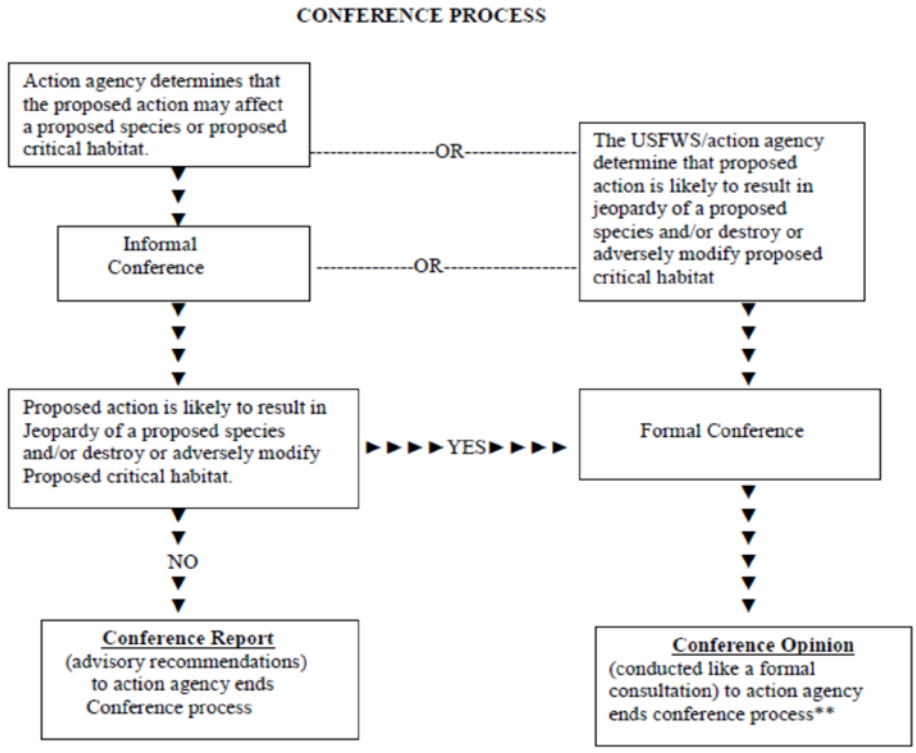
Confirmation of Conference Opinion as Formal Consultation

The USFWS/NMFS must respond within 45 calendar days, and, within that period, may adopt the **Conference Opinion** as the BO issued through formal consultation if no significant changes have occurred in the proposed action or the information used in the Conference. When the conference opinion is adopted in this manner, it satisfies an action agency's section 7 consultation requirements.

If it is likely that a proposed species or critical habitat will be listed prior to the completion of a specific project, and effects are expected, it is wise to Conference on the proposed species or proposed critical habitat found in the project vicinity, even for a "not likely to adversely affect" situation. Completing a conference will assure that if a listing for a proposed species or critical habitat occurs during project implementation, the project will not have to be stopped to address ESA issues. See Table 1 for a comparison of the Conference and Consultation processes

Remember:
The request for USFWS/NMFS confirmation of a Conference Opinion must be in writing.

Figure 21. Conference consultation process.



NOTE: Section 7 Informal discussions can occur at any time.
** The incidental take statement (ITS) does not become effective unless the USFWS/NMFS adopts the opinion as final once the species is listed and/or critical habitat is designated.

Table 1. Comparison of the conference and consultation provisions of the Endangered Species Act and regulations implementing section 7.

	CONFERENCE	CONSULTATION
Authority_____	**section 7(a)(4)**	**section 7 (a)(2)____**
When Required	Federal action to fund authorize or carry out an action likely to jeopardize **Proposed** species or destroy or adversely modify **proposed** critical habitat.	Federal action fund, authorize or carry out an action which may affect **listed** species or **designated** critical Habitat.
Types of Procedures	**Informal conference** Informal discussions resulting in advisory recommendations on ways to minimize or avoid adverse effects, avoid jeopardy, or adverse modification. If the species is listed or the critical habitat is designated before the action is completed, the need for formal consultation must be determined.	**Informal Consultation** Informal discussions resulting in advisory recommendations on ways to avoid adverse effects. If adopted may lead to a concurrence that the action is not likely to adversely affect the listed species or designated critical habitat. ESA obligation is completed, based on concurrence by the USFWS/NMFS.
	Formal conference At the agency's request, and FWS concurrence, the formal process for consultation will be followed, resulting in an Opinion that can stand as the BO for the statement. Action if no significant new information or change in the action develops. The incidental take statement is not effective unless the USFWS/NMFSs adopt the conference opinion once the proposed species is listed.	**Formal consultation** A formal process with regulated timeframes, that results in the development of a BO and incidental take
Agency Responsibilities	**Formal conference** None, but a prudent agency would adopt any reasonable and prudent alternatives and incidental take terms and conditions if the Conference Opinion is expected to be adopted as the BO for an exemption following listing.	**Formal consultation** Adopt the reasonable and prudent alts. and incidental take terms and conditions or do not undertake the action, or apply.

Table 1 cont.. Comparison of the conference and consultation provisions of the Endangered Species Act and regulations implementing section 7.

	CONFERENCE	CONSULTATION
Irreversible and Irretrievable Commitment of Resources Precluding Formulation of Implementation Of Reasonable and Prudent Alternatives Section 7(d)	Not applicable, but a prudent agency would not make such a resource commitment if the conference opinion is to be adopted as the biological opinion following listing.	Cannot be made between the "***may affect***" finding and and the conclusion of formal consultation
Incidental Take	**Informal Conference** Not required **Formal Conference** Required to be addressed in the conference opinion but not effective until adopted by the USFWS/NMFSs after the species is listed.	**Informal consultation** Not required **Formal consultation** Required except for plant species – anticipated incidental

Appendix H – Biological Assessment Templates (Regular and Short)

TEMPLATE – COVER LETTER TO USFWS/NMFS FOR SECTION 7 (INFORMAL CONSULTATION "*NOT LIKELY TO ADVERSELY AFFECT*")

(EDIT HIGHLIGHTED AREAS AS APPROPRIATE – CAPITALIZED ITALICIZED WORDS ARE GUIDANCE)

USING OFFICIAL NPS LETTERHEAD

USFWS/NMFS CONTACT PERSON'S NAME
STATE? Field Supervisor
U.S. Fish and Wildlife Service or National Marine Fisheries Service
STATE? Field Office – Ecological Services
THEIR ADDRESS
CITY, STATE, ZIP

Dear Mr./Ms. (THEIR NAME):

I am requesting your written concurrence of our determination of effects for the proposed NAME OF PROJECT on federally listed species and designated critical habitat (*AS APPROPRIATE*) in accordance with section 7(a)(2) of the Endangered Species Act of 1973 (as amended) (Act), codified in 50 CFR §402.02 and §402.14. Technical Assistant/Informal consultation (*WHATEVER IS APPROPRIATE*) was initiated on DATE, between PERSON'S NAME of your office and YOUR NAME AND TITLE for the National Park Service, and subsequent telephone conversations (OTHER - FIELD VISITS OR MEETINGS) occurred on (DATES). The proposed NAME OF PROJECT is located in PARK NAME AND STATE. *USE ONE OF THE TWO FOLLOWING PARAGRAPHS DEPENDING ON YOUR DOCUMENTATION:*

> ***IF A STAND-ALONE BA*** *WAS PREPARED AS YOUR ANALYSIS INSERT THE FOLLOWING LANGUAGE:* With this letter, we submit our biological Assessment (BA) containing a description of the proposed management action, species addressed, discussion of effects, and our effect determinations for the following federally listed species and designated critical habitat *(IF APPROPRIATE). LIST EACH SPECIES ADDRESSED – [BOTH COMMON AND SCIENTIFIC NAMES] AND THEIR FEDERAL STATUS.*
>
> ***OR***
>
> ***IF YOUR BIOLOGICAL ANALYSIS IS AN EMBEDDED BA IN AN EA/EIS*** *(NEPA DOCUMENT) OR OTHER THAN A STAND-ALONE BA BE SURE TO HIGHLIGHT FOR THE USFWS/NMFS WHERE THEY CAN FIND THE INFORMATION THEY NEED TO REVIEW (INSERT THE FOLLOWING):* With this letter, we submit our embedded biological Assessment (BA) in the attached *(NAME)* Environmental Assessment (EA) (OR EIS). Please refer to sections (*X, X, and X*) for a description of the proposed management action, species addressed, discussion of effects, and our effect determinations. These sections contain our analysis of effects to the following federally listed species and designated critical habitat *(IF APPROPRIATE). LIST EACH SPECIES ADDRESSED – BOTH COMMON AND SCIENTIFIC NAMES AND THEIR FEDERAL STATUS.*

We have determined that our proposed action "*may affect, not likely to adversely affect*" the LIST EACH SPECIES as the effects of this action are insignificant and/or discountable for the reasons stated in our assessment *(USING THESE TERMS IS ONLY APPROPRIATE FOR "may affect, not likely to adversely affect" - NOT APPROPRIATE FOR OTHER DETERMINATIONS]). IF THERE ARE ANY "NO EFFECT" DETERMINATIONS FOR SPECIES YOU ADDRESSED THEN LIST THOSE SPECIES WITH THIS DETERMINATION AS WELL. ALSO, STATE WHETHER THERE IS ANY DESIGNATED CRITICAL HABITAT IN THE AREA AND IF SO YOUR EFFECT DETERMINATIONS.* If you agree with these determinations, please send your written concurrence to me.

We appreciate your review and assistance in this consultation process as we are committed to the conservation of federally listed species occurring in the PARK NAME. Please contact THE CONTACT PERSON at our office at TELEPHONE NUMBER if you have any questions regarding this request.

Sincerely,

NAME/TITLE - SUPERINTENDENT OR OTHER

Enclosures: Biological Assessment, OTHERS?...

TEMPLATE– COVER LETTER TO THE USFWS/NMFS FOR SECTION 7 (FORMAL CONSULTATION "*LIKELY TO ADVERSELY AFFECT*")

(EDIT HIGHLIGHTED AREAS AS APPROPRIATE – CAPITALIZED ITALICIZED WORDS ARE GUIDANCE)

USE OFFICIAL NPS LETTERHEAD

USFWS/NMFS CONTACT PERSON'S NAME
STATE Field Supervisor
U.S. Fish and Wildlife Service or National Marine Fisheries Service
STATE Field Office – Ecological Services
THEIR ADDRESS
CITY, STATE, ZIP

Dear Mr./Ms. (THEIR NAME):

I am submitting to you our determination of effects regarding federally listed species and/or designated critical habitat (IF APPROPRIATE) for the proposed NAME OF PROJECT. With this submittal, we are requesting initiation of formal consultation with you in accordance with section 7(a)(2) of the Endangered Species Act of 1973 (as amended) (Act), codified in 50 CFR §402.02 and §402.14.

We have determined that this proposed action "*may affect, likely to adversely affect*" the NAME OF EACH SPECIES AND CRITICAL HABITAT AND ITS DETERMINATION FOR EACH.

Technical assistant/Informal consultation (*WHATEVER IS APPROPRIATE*) was initiated on DATE, between PERSON'S NAME of your office and YOUR NAME AND TITLE for the National Park Service, and subsequent telephone conversations (OTHER - FIELD VISITS OR MEETINGS) occurred on (DATES). The proposed NAME OF PROJECT is located in PARK NAME AND STATE. *(USE ONE OF THE TWO FOLLOWING PARAGRAPHS DEPENDING ON YOUR DOCUMENTATION):*

> ***IF A STAND-ALONE BA*** *WAS PREPARED AS YOUR ANALYSIS INSERT THE FOLLOWING LANGUAGE:* With this letter, we submit our biological assessment (BA) containing a description of the proposed management action, species addressed, discussion of effects, and our effect determinations for the following federally listed species and designated critical habitat *(IF APPROPRIATE). LIST EACH SPECIES ADDRESSED – [BOTH COMMON AND SCIENTIFIC NAMES] AND THEIR FEDERAL STATUS.*
>
> ***OR***
>
> ***IF YOUR BIOLOGICAL ANALYSIS IS AN EMBEDDED BA IN AN EA/EIS*** *(NEPA DOCUMENT) OR OTHER THAN A STAND-ALONE BA BE SURE TO HIGHLIGHT FOR THE USFWS/NMFS WHERE THEY CAN FIND THE INFORMATION THEY NEED TO REVIEW (INSERT THE FOLLOWING):* With this letter, we submit our embedded biological assessment (BA) in the attached (*NAME)* Environmental Assessment (EA) (OR EIS). Please refer to sections (*X, X, and X*) for a description of the proposed management action, species addressed, discussion of effects, and our effect determinations. These sections contain our analysis of effects to the following federally listed species and designated critical habitat *(IF APPROPRIATE). LIST EACH SPECIES ADDRESSED – BOTH COMMON AND SCIENTIFIC NAMES AND THEIR FEDERAL STATUS.*

We appreciate your review and assistance in this consultation process as to fulfill our consultation responsibilities under the Act. We are committed to the conservation of federally listed species and protection of designated critical habitat (IF APPROPRIATE) occurring in/near the PARK NAME. Please contact THE CONTACT PERSON at our office at TELEPHONE NUMBER if you have any questions regarding this request.

Sincerely,

NAME/TITLE - SUPERINTENDENT OR OTHER

Enclosures: Biological Assessment, OTHERS?...

BA TEMPLATE – BA COVER PAGE–ACTIONS WITH EFFECTS ("*MAY AFFECT*" SPECIES OR CRITICAL HABITAT)

(EDIT HIGHLIGHTED AREAS AS APPROPRIATE – CAPITALIZED ITALICIZED WORDS ARE GUIDANCE).

NAME OF PROJECT
BIOLOGICAL ASSESSMENT

XXXXX (NPS UNIT)

MONTH, DAY, YEAR

NATIONAL PARK SERVICE – U.S. DEPARTMENT OF INTERIOR

Prepared by:

/S/ Your Name Date: **XXXXX**
YOUR NAME
YOUR TITLE

/S/ Others Name (if applicable) Date: **XXXXX**
THEIR NAME
THEIR TITLE

Reviewed/Approved by: (if applicable)

/S/ Their Name Date: **XXXXX**
THEIR NAME
THEIR TITLE

Submitted to: (Deciding Official if wanted or needed)

/S/ Their Name Date: **XXXXX**
THEIR NAME
THEIR TITLE

Your Contact Information
NAME OF PREPARER
YOUR TITLE
PARK UNIT
MAILING ADDRESS
YOUR TELEPHONE
YOUR EMAIL ADDRESS

BA TEMPLATE –TABLE OF CONTENTS –ACTIONS WITH EFFECTS ("*MAY AFFECT*" SPECIES OR CRITICAL HABITAT)

(EDIT HIGHLIGHTED AREAS AS APPROPRIATE – CAPITALIZED ITALICIZED WORDS ARE GUIDANCE)

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BA TEMPLATE –ACTIONS WITH EFFECTS ("*MAY AFFECT*" SPECIES OR CRITICAL HABITAT)

(EDIT HIGHLIGHTED AREAS AS APPROPRIATE – CAPITALIZED ITALICIZED WORDS ARE GUIDANCE).

1.0 Introduction

The Endangered Species Act of 1973 (16 U.S.C. 153 *et seq*.), as amended (ESA or Act) in section 7(a)(1) directs federal agencies to conserve and recover listed species and use their authorities in the furtherance of the purposes of the Act by carrying out programs for the conservation of endangered and threatened species so that listing is no longer necessary (50 CFR §402). Furthermore, the Act in section 7(a)(2) directs federal agencies to consult (referred to as section 7 consultation) with the U.S. Fish and Wildlife Service (USFWS) or National Marine Fisheries Service (NMFS) when their activities "may affect" a listed species or designated critical habitat. Additionally, NPS Management Policy (2006) directs the NPS to "inventory, monitor, and manage state and locally listed species in a manner similar to its treatment of federally listed species to the greatest extent possible".

1.1 Purpose of this Biological Assessment

This biological assessment (BA) analyzes the potential effects of the proposed *NAME OF PROPOSED MANAGEMENT ACTION* on the *NAME OF PARK* (Park)/*Monument/Unit* on federally listed threatened, endangered, proposed animal (wildlife, invertebrates, and fish) and/or plant *(WHATEVER IS APPROPRIATE*)species, and critical habitats, pursuant to section 7(a)(2) of the ESA. Federally, state, or locally *(IF NON-FEDERAL SPECIES ARE INCLUDED IN THIS DOCUMENT)* listed threatened and endangered animal *and/or* plant species and critical habitat meeting the following criteria are addressed in this assessment:

1. known to occur in the Park based on confirmed sightings;
2. may occur in the Park based on unconfirmed sightings;
3. potential habitat exists for the species in the Park; or
4. potential effects may occur to these species.

1.2 Current Management Direction

Current management direction for federally listed and proposed threatened and endangered species can be found in the following documents, filed at our office:

- Endangered Species Act of 1973, as amended (ESA or Act)
- 1916 NPS Organic Act
- NPS General Authorities Act of 1978
- NPS Management Policies 2006
- Migratory Bird Treaty Act (MBTA)
- National Environmental Policy Act (NEPA)
- Species-specific recovery plans which establish population goals for recovery *(IF APPLICABLE)*
- Species management plans, guides, or conservation strategies *(IF APPLICABLE)*
- Park management plans *(IF APPLICABLE)*
- Others??? *(ADD AS NECESSARY*

2.0 Consultation History

***BRIEFLY**, SUMMARIZE IMPORTANT CONTACTS WITH USFWS/NMFS CHRONOLOGICALLY REGARDING **THIS ACTION ONLY**. IF NO PREVIOUS CONSULTATION HAS OCCURRED **ON THIS ACTION**, STATE SO. LIST THE DATES OF INITIATION, INFORMATION REQUESTS, MEETINGS, PHONE CALLS, SITE VISITS, PERSON CONTACTED, ETC. IF LENGTHY, PUT THIS INFORMATION INTO A TABLE.*

3.0 Proposed Management Action and Alternatives Considered

***DESCRIBE THE PROPOSED MANAGEMENT ACTION WE ARE CONSULTING WITH THE USFWS/NMFS.** YOU CAN ALSO INCLUDE THE NO ACTION ALTERNATIVE AND OTHER ALTERNATIVES CONSIDERED. IF YOU DISCUSS MORE THAN ONE ALTERNATIVE, CLEARLY IDENTIFY WHICH IS THE PROPOSED ACTION/PREFERRED ALTERNATIVE (WHAT ARE YOU PROPOSING TO DO) SO USFWS/NMFS WILL KNOW EXACTLY WHAT ACTION WE ARE CONSULTING WITH YOU ON. REMEMBER, FOR ESA SECTION 7 CONSULTATION REQUIREMENTS, **WE ARE REQUIRED TO CONSULT ON ONLY THE PROPOSED MANAGEMENT ACTION AND NOT OTHERS CONSIDERED**; HOWEVER, WE CAN ALSO INCLUDE OUR ANALYSIS OF THE EFFECTS FROM OTHER ALTERNATIVES CONSIDERED (INCLUDING THE NO ACTION ALTERNATIVE). COMPARING OTHER ALTERNATIVES AND THEIR EFFECTS TO LISTED SPECIES WITH THOSE FROM THE PROPOSED ACTION CAN BE VERY HELPFUL AND REQUIRED UNDER NEPA AS WE MUST ANALYZE THE EFFECTS FROM ALL ALTERNATIVES (NO ACTION & EACH ACTION ALTERNATIVE). YOUR ANALYSIS OF ALL ALTERNATIVES IS STILL REQUIRED UNDER NEPA. YOU CAN INCLUDE OTHER ALTERNATIVES IN YOUR BA AS WELL FOR A MORE COMPREHENSIVE ANALYSIS, BUT IF YOU DO, BE SURE TO CLEARLY INDICATE WHICH ALTERNATIVE IS THE PROPOSED ACTION IN YOUR COVER LETTER TO THE USFWS/NMFS AND IN THIS SECTION.*

*THIS SECTION SHOULD BE AS **SHORT AS POSSIBLE** – YET STILL GIVE THE READER A **CLEAR UNDERSTANDING OF WHAT IS BEING PROPOSED**. REMEMBER, USFWS/NMFS MAY BE UNFAMILIAR WITH THE PROPOSED ACTION. THIS SECTION SHOULD CONTAIN EVERYTHING THEY NEED TO FULLY UNDERSTAND THE SIZE, SCOPE, DURATION AND IMPORTANT COMPONENTS OF THIS ACTION.*

***DESCRIBE THE PROPOSED ACTION.** YOUR PROJECT DESCRIPTION CAN BE VERY SHORT OR MORE LENGTH DEPENDING ON ITS COMPLEXITY. **DECONSTRUCT THE PROPOSED ACTION** AND DESCRIBE **EACH OF THE INDIVIDUAL COMPONENTS** OF THE ACTION SO THE READER HAS A **GOOD UNDERSTANDING** OF IT (E.G., **WHO** IS PROPOSING, **WHAT** IS PROPOSED, **WHEN** WILL IT OCCUR, **WHERE**, **HOW LONG, WHY** [PURPOSE AND NEED STATEMENT], **HOW** WILL IT OCCUR, ETC.). SPECIFICS ARE CRITICAL (I.E., WHAT EACH OF THESE COMPONENTS OF YOUR ACTION ARE [**BREAK IT DOWN FOR EACH COMPONENT OF THE ACTION** – E.G., ALL PERMANENT/TEMPORARY ROADS, WHERE GRAVEL OR OFF-SITE FILL WILL COME FROM, TYPES OF TREATMENTS, AND ALL OTHER ASSOCIATED ACTIVITIES]). BE SURE TO INCLUDE THE **TIMING, INTENSITY, AND DURATION** OF EACH OF THESE ACTIVITIES. IF NOT TOO LENGTHY, YOU CAN ALSO CUT AND PASTE THIS INFORMATION DIRECTLY OUT OF THE NEPA DOCUMENT.*

*PROVIDE ENOUGH INFORMATION SO THAT YOUR DOCUMENT CAN **STAND ALONE**; HOWEVER, THE **NEPA DOCUMENT CAN ALSO BE REFERENCED** FOR SOME SPECIFIC DETAILS. INFORMATION PROVIDED SHOULD BE SUFFICIENT TO PROVIDE A FOUNDATION FOR THE **READER TO CLEARLY UNDERSTAND OF WHAT IS BEING PROPOSED** AND WHAT WILL BE ANALYZED FOR EFFECTS TO T&E SPECIES/HABITATS AND CRITICAL HABITAT.*

*INCLUDE ALL PERTINENT **CONSERVATION MEASURES, DESIGN CRITERIA, OR MITIGATION MEASURES** THAT HAVE BEEN BUILT IN TO REDUCE OR AVOID EFFECTS TO SPECIES/HABITAT.*

*INCLUDE **MAPS, PHOTOS**, ETC. TO PROVIDE THE READER A BETTER UNDERSTANDING OF EXISTING CONDITIONS, WHAT ACTIONS ARE PROPOSED, AND WHERE THEY ARE LOCATED. REMEMBER, THE READER IS LIKELY UNFAMILIAR WITH YOUR PROJECT SO **EVERYTHING THEY NEED TO KNOW MUST BE INCLUDED.***

4.0 Action Area Description

DEFINE THE ACTION AREA.
*THIS IS THE **AREA OF POTENTIAL (DIRECT AND INDIRECT) IMPACTS** FROM YOUR PROPOSED ACTION ON THE **CHEMICAL, PHYSICAL**, AND **BIOTIC COMPONENTS** OF **LAND, AIR,** AND **WATER**. IT IS ESSENTIAL THIS IS DONE VERY EARLY TO DETERMINE THE GEOGRAPHIC BOUNDS/EXTENT AND SCALE OF YOUR ANALYSIS. DEFINING THE ACTION AREA NOW WILL HELP YOU DETERMINE WHICH SPECIES/CRITICAL HABITAT TO ADDRESS IN LATER SECTIONS OF THE BA. THE ACTION AREA DEFINES THE AREA OF INFLUENCE FOR YOUR ASSESSMENT FROM THE POTENTIAL EFFECTS OF YOUR ACTION, AND CUMULATIVE EFFECTS. YOUR ACTION AREA SHOULD ENCOMPASS ALL POTENTIAL IMPACTS TO LAND, AIR AND WATER THAT COULD AFFECT EACH SPECIES/CRITICAL HABITAT (E.G., INDIRECT EFFECTS OF NOISE, DUST, LIGHT, SEDIMENTATION, WATER QUALITY, OR OTHER IMPACTS THAT MAY AFFECT SPECIES). THIS AREA IS ALMOST ALWAYS LARGER THAN THE PROJECT FOOTPRINT. **THIS CAN BE DEFINED USING TEXT AND/OR GRAPHICALLY USING A MAP SHOWING YOUR ACTION AREA**. SEE BA GUIDEBOOK FOR MORE INFORMATION.*

DESCRIBE THE ACTION AREA

- *DESCRIBE THE **PROJECT LOCATION** [I.E., COUNTY, STATE, NATIONAL PARK/MONUMENT/UNIT, AND LEGAL DESCRIPTION];*
- ***VEGETATION COMMUNITIES** AND **ECOSYSTEM** IN THE ACTION AREA AND VICINITY;*
- ***TOPOGRAPHY**;*
- ***CLIMATE**; AND*
- ***PROXIMITY TO NEARBY ROADS, TOWNS, OR OTHER LANDMARKS**, ETC.).*

*GIVE ENOUGH INFORMATION TO THE READER SO THEY KNOW **WHAT THE VEGETATION AND HABITAT CONDITIONS ARE PRESENT**. ALWAYS INCLUDE A **MAP** (TOPOGRAPHIC MAPS ARE PARTICULARLY HELPFUL) IF NOT INCLUDED ABOVE. PROVIDE **PHOTOGRAPHS** INCLUDING AERIALS, IF AVAILABLE. **WHAT DOES THE ACTION AREA LOOK LIKE NOW (TOPOGRAPHY, VEGETATION, CONDITION/TREND, ETC.)?***

5.0 Pre-field Review

INSERT THE FOLLOWING INTO YOUR BA:

A list of federally listed and proposed species and designated/proposed critical habitat in the action area was obtained from the USFWS/NMFS IPaC website on DATE (*XXXX*) *(MAKE SURE LIST IS NO MORE THAN **90 DAYS OLD** BEFORE SUBMITTAL).* Using this list, we determined which of those species/critical habitat had a potential to occur within the action area (shown in Table X below). Species not known or with no potential of occurring in the action area are documented with rationale in Table X below and will not be discussed further in this document. Excluded species have been dropped from further analysis by meeting one or more of the following conditions:

1. species does not occur, nor is expected in the action area during the time activities would occur;
2. occurs in habitats that are not present; and/or
3. is outside of the geographical or elevational range of the species.

In addition, Table *X* below gives a very brief summary of federally listed/proposed species, designated/proposed critical habitat, species' habitat requirements, and known occurrence information of species that are known or may occur in the action area.

There is/no proposed or designated critical habitat for any federally listed species addressed in this assessment within the action area; therefore, there will be/no direct, indirect, or cumulative effects. Critical habitat will/not be addressed further in this assessment.

5.1 Species Considered and Evaluated

INSERT THE FOLLOWING INTO YOUR BA:

The following table *(MAKE SURE THE FOLLOWING TABLE IS ALL ON ONE PAGE OR IF IT IS ON MULTIPLE PAGES, YOU REPEAT COLUMN HEADINGS)* indicates whether the species from the USFWS/NMFS official species list (dated *XXXXX*) are known or expected to occur within the action area, suitable habitat is present, or if not why they are excluded from further analysis (with rationale).

Table X. Threatened, endangered, candidate/proposed species with the potential to occur within the action area and critical habitat. The USFWS/NMFS species list (USFWS 2013) was obtained from IPaC website on DATE and reviewed. Species/critical habitat not having the potential to occur were excluded from further review with a no effect determination with the below rationale.
[1] **Status Codes**: **E**=federally listed endangered; **T**=federally listed threatened; **P**= federally proposed for listing; **C**= federal candidate for listing; and **CH**=designated critical habitat *(IF YOU ARE INCLUDING STATE OR LOCALLY LISTED SPECIES INCLUDE CODE HERE AS WELL)*
[2] **Exclusion Rationale Codes**: **ODR**=outside known distributional range of the species; **HAB**= no habitat present in action area; **ELE**= outside of elevational range of species; and **SEA**=species not expected to occur during the season of use/impact

Species Common and Scientific Name	Status[1]	Potential to Occur	Critical Habitat	Rationale for Exclusion[2]	Habitat Description and Range in Action Area
INVERTEBRATES					
COMMON NAME *SCIENTIFIC NAME*	*E*	*No*	*No*	*HAB, ELE*	*known to only occur above timberline on Mt. XXX, laying eggs on snow willow (Salix nivalis); potentially occurring in XXX & XXX counties in XXX*
AMPHIBIANS AND REPTILES					
COMMON NAME *SCIENTIFIC NAME*	*C*	***YES***	*No*		*breeds in ponds & over winter in refugia within lodgepole pine, spruce-fir forests, & alpine meadows; 7,500-12,000 ft; XXX County has the only viable population in XXX*
BIRDS					
COMMON NAME *SCIENTIFIC NAME*	*T*	*No*	***YES***	*HAB*	*steep-sided canyons with old-growth mixed conifer forests, nesting on cliff ledges or caves along canyon walls in shady/cool canyons of the piñon/juniper zone in XXX*
MAMMALS					
COMMON NAME *SCIENTIFIC NAME*	*T*	*No*	***YES***	*HAB*	*old-growth coniferous and mixed conifer forests, denning under root wads, fallen trees/logs on steep shady/cool slopes in XXX*

(SUMMARIZE THE ABOVE TABLE) As indicated in the above table, there is one federally listed threatened or endangered, candidate/proposed species *(LIST THEM)* with the potential to occur (i.e., habitat is present) and one designated critical habitat within the action area. Therefore, only those species and critical habitat will be addressed hereafter in this assessment (evaluated species). The remaining species/critical habitat shown above without a potential to occur will not be analyzed further based on the rationale provided. The proposed action will have no effect on these other species or critical habitat.

6.0 Evaluated Species Information

6.1 Field reconnaissance

*HAVE YOU **VISITED THE PROJECT SITE**? HAVE YOU **SURVEYED FOR SPECIES** THAT ARE KNOWN/ HAVE POTENTIAL TO OCCUR **IN SUITABLE HABITAT IN THE ACTION AREA**? IF SUITABLE HABITAT IS PRESENT AND YOU HAVE NOT CONDUCTED ADEQUATE SURVEYS (USING ACCEPTED PROTOCOLS), THEN YOU SHOULD **ASSUME THE SPECIES IS PRESENT** FOR YOUR ANALYSIS. ALWAYS REFERENCE YOUR **INFORMATION SOURCES**. INCLUDE A CLEAR DESCRIPTION OF YOUR **SURVEY METHODS** SO THAT THE READER CAN HAVE CONFIDENCE IN YOUR RESULTS. ANSWER THE FOLLOWING QUESTIONS:*

- ***HOW INTENSIVE WERE THE SURVEYS?***
- *DID YOU LOOK FOR **SUITABLE HABITAT** OR DID YOU LOOK FOR **INDIVIDUALS**?*
- *DID THE SURVEY COVER THE **ENTIRE ACTION AREA** OR ONLY PART OF IT?*
- ***WHO DID THE SURVEYS AND WHEN?***
- *WERE THE SURVEYS DONE DURING THE **TIME OF YEAR/DAY** WHEN THE PLANT IS GROWING OR WHEN THE ANIMAL CAN BE FOUND (ITS ACTIVE PERIOD)?*
- *DID THE SURVEYS FOLLOW **ACCEPTED PROTOCOLS**?*
- *STATE IF A **FIELD VISIT** TO THE ACTION AREA WAS COMPLETED BY THE PREPARING BIOLOGIST.*
- ***NEW SURVEYS ARE NOT REQUIRED UNDER ESA** ACCORDING TO COURT INTERPRETATIONS (ARIZONA CATTLE GROWERS ASSOC. VS. USFWS 1998); HOWEVER, DIRECTION REQUIRES US TO USE THE BEST AVAILABLE INFORMATION (E.G., THE AREA MAY ALREADY HAVE BEEN ADEQUATE SURVEYS IN THE AREA). SITE-SPECIFIC SURVEYS SHOULD BE CONDUCTED IF FEASIBLE (USING ACCEPTED PROTOCOLS), OR IN THEIR ABSENCE – YOU SHOULD **ASSUME THE SPECIES IS PRESENT AND ANALYZE** – DOCUMENTING EXPECTED EFFECTS.*
- *REMEMBER THAT FOR MANY ANIMALS, **SURVEYS CAN ONLY PROVE PRESENCE – NOT ABSENCE**. CONSIDER POTENTIAL IMPACTS TO A SPECIES IF ITS HABITAT IS PRESENT.*
- *IF YOU ARE NOT SURE HOW TO DO A GOOD SURVEY FOR THE SPECIES, **CONTACT SPECIES EXPERTS OR USFWS** AND CITE YOUR SOURCES IN THE LITERATURE CITED SECTION (12.0).*

6.2 Species Status and Biology

***THIS SECTION IS THE LEAST IMPORTANT PART OF THE BA**. THE USFWS/NMFS ALREADY KNOWS THE BIOLOGY OF THE SPECIES – NO NEED TO PROVIDE A LOT OF INFORMATION.*

*INCLUDE A **VERY BRIEF OVERVIEW** OF EACH SPECIES' **RANGE, STATUS, LIFE HISTORY**, IMPORTANT **BEHAVIORS**, **HABITAT** REQUIREMENTS, **LIMITING FACTORS**, AND OTHER INFORMATION THAT IS **RELEVANT** TO THE ACTION AREA. KEEP THE INFORMATION PRESENTED AS **BRIEF AS POSSIBLE** AND **REFERENCE OTHER DOCUMENTS** (E.G., RECOVERY PLANS, USFWS/NMFS SPECIES ACCOUNTS, WEB SITES, OTHER DOCUMENTS, ETC.)*

- ***FOCUS ON LIMITING FACTORS** – PARTICULARLY IF THEY ARE RELEVANT TO THE POTENTIAL EFFECTS FROM YOUR PROPOSED ACTION.*
- *DISCUSS EFFECTS OF **CLIMATE CHANGE** TO THE SPECIES IF APPLICABLE EITHER HERE OR THE ENVIRONMENTAL BASELINE SECTION (7.0) BELOW.*
- ***SPECIFIC INFORMATION AS TO THE LOCAL STATUS, USE, AND OCCURRENCE WITHIN THE ACTION AREA SHOULD BE HIGHLIGHTED**.*

*THE INTENT OF THIS SECTION IS TO PROVIDE THE READER WITH A **BASIC UNDERSTANDING OF THE BIOLOGY REQUIREMENTS OF EACH SPECIES AND THEIR LIMITING FACTORS** AFFECTING ESSENTIAL BEHAVIORS AND THEIR DISTRIBUTION AND PRESENCE IN THE ACTION AREA.*

7.0 Environmental Baseline

*THIS SECTION IS OPTIONAL, BUT IS **STRONGLY SUGGESTED** TO ASSIST THE USFWS/NMFS IN THEIR REVIEW, RESPONSE (THEIR PREPARATION OF A BO), AND TO FACILITATE A QUICKER AND MORE EXPEDITIOUS SECTION 7 CONSULTATION PROCESS.*

*THE ENVIRONMENTAL BASELINE IS **LIMITED TO THE ACTION AREA** THAT YOU DEFINED IN SECTION 4 ABOVE. ADDRESS SPECIFIC ANALYSIS OF THE EFFECTS OF **PAST AND ONGOING HUMAN AND NATURAL FACTORS** THAT PERTAIN TO THE ACTION YOU ARE ADDRESSING BEFORE YOU CONSIDER THE ADDITIVE IMPACT OF THE PROPOSED ACTION. THIS PROVIDES A FIXED POINT OR SNAPSHOT OF A SPECIES' **CURRENT CONDITION**, BEFORE YOU INCLUDE THE EFFECTS OF THE ACTION UNDER REVIEW IN YOUR ANALYSIS. THIS SECTION PROVIDES THE READER WITH A "STARTING POINT" IN WHICH THE EFFECTS OF THE PROPOSED ACTION AND CUMULATIVE EFFECTS ARE ADDED TO IN LATER SECTIONS OF THE BA. **DO NOT INCLUDE FUTURE ACTIONS AND THEIR EFFECTS IN THIS SECTION.***

DESCRIBE THE FOLLOWING CONDITIONS IN THE ACTION AREA:

- *RELEVANT **HISTORICAL CONDITIONS** AND PAST MANAGEMENT ACTIVITIES*
- ***EXISTING DEVELOPMENTS** AND **HUMAN USES***
- *DESCRIBE **CURRENT MANAGEMENT** OR ACTIVITIES RELEVANT TO THE ACTION AREA. HOW HAVE THEY **CHANGED HABITAT CONDITIONS** FOR THE SPECIES ADDRESSED?*

INSERT THE FOLLOWING INTO YOUR BA

As defined under the ESA, the environmental baseline includes past and present impacts of all federal, state, and private actions in the action area; the anticipated impacts of all proposed federal actions in the action area that have already undergone formal or early section 7 consultation; and the impact of state and private actions which are contemporaneous with the section 7 consultation process. Future actions and their potential effects are not included in the environmental baseline. This section in combination with the previous section defines the current status of the species and its habitat in the action area and provides a platform to assess the effects of the proposed action under consultation with the USFWS/NMFS.

7.1 Previous Consultations with the USFWS/NMFS Within the Action Area

*INCLUDE ALL **PAST COMPLETED SECTION 7 CONSULTATIONS** THAT HAVE PREVIOUSLY OCCURRED WITHIN YOUR IDENTIFIED ACTION AREA. THE BEST WAY TO DISPLAY THIS MAY BE IN A **TABLE** FORMAT. INSERT THE FOLLOWING TABLE INTO YOUR BA:*

Table X. Past consultations with the USFWS/NMFS and determinations for actions within the action area for all federally listed/proposed species and designated/proposed critical habitat.
[1] **ESA determinations**: **NE** = No effect, **NLAA** = May affect, not likely to adversely affect, **BE** = Beneficial Effect, and **LAA** = May affect, not likely to adversely affect.

Project	Park Unit	Type of Project	Species Addressed	Determination[1]	Date
Big Tree Visitor Center	*SOPA*	*Facilities improvement*	*XXX*	*NE*	*1999*
Big Tree Trail	*SOPA*	*Recreation*	*XXX* *XXX*	*NLAA* *NE*	*2005*

7.2 Past and Current Activities Within the Action Area

*SPECIFICALLY DISCLOSE WHAT **ACTIVITIES** (E.G., ROADS, TRAILS, CAMPGROUNDS, RECREATION ACTIVITIES, PRESCRIBED BURNING, ETC.) **HAVE/ARE CURRENTLY OCCURRING WITHIN THE ACTION AREA** THAT IS RELEVANT TO THE SPECIES YOU ARE ADDRESSING. BE SURE TO NOT ONLY LIST THESE ACTIVITIES, BUT MOST IMPORTANTLY ADDRESS THE FOLLOWING: **WHAT ARE THE EFFECTS OF EACH ACTIVITY TO THE SPECIES AND THEIR HABITATS?** THESE SHOULD INCLUDE THE ENTIRE ACTION AREA, WHICH IS ALMOST ALWAYS LARGER THAN THE PROJECT FOOTPRINT OR CAN BE LARGER THAN THE PARK ITSELF.*

8.0 Effects to Evaluated Species and Determinations

THIS IS WHAT YOUR ASSESSMENT IS ALL ABOUT
*IT IS **THE MOST IMPORTANT SECTION OF YOUR DOCUMENT!***

*FEDERALLY LISTED SPECIES SHOULD BE **DISCUSSED SEPARATELY** IN THIS SECTION – EITHER **INDIVIDUALLY** OR **GROUPED TOGETHER** AS APPROPRIATE (IF THEY HAVE SIMILAR HABITATS AND/OR EFFECTS). IF YOUR DOCUMENT INCLUDES FEDERALLY LISTED AND STATE OR LOCALLY LISTED SPECIES BE SURE TO **SEPARATE YOUR DISCUSSION** OF FEDERAL AND NON-FEDERAL SPECIES INTO DIFFERENT SECTIONS. **USFWS/NMFS ONLY NEEDS TO REVIEW FEDERALLY LISTED/PROPOSED SPECIES AND CRITICAL HABITAT**, NOT OTHER STATE LOCALLY LISTED SPECIES, OR SPECIES OF CONCERN.*

INSERT THE BELOW SECTION HEADERS FOR EACH ADDRESSED IN YOUR BA.

8.1 Federally Listed Species

*SEPARATE FEDERALLY LISTED SPECIES ACCORDING TO TAXA (E.G., UNDER HEADINGS SUCH AS **"WILDLIFE"**, **"FISH"**, **"PLANTS"**, ETC.).*

*FOR EACH SPECIES, DISCUSS THE **DIRECT, INDIRECT, CUMULATIVE EFFECTS**, WHETHER THEY WILL BE ANY ANTICIPATED INCIDENTAL TAKE, AND YOUR EFFECT DETERMINATION.*

Direct and Indirect Effects

***FOR EACH SPECIES** – WHAT ARE THE **DIRECT AND INDIRECT EFFECTS** OF THE PROPOSED ACTION ON EACH SPECIES/HABITAT? **YOU DO NOT NEED TO SEPARATE OUT DIRECT FROM INDIRECT EFFECTS UNDER SEPARATE HEADINGS,** BUT IT IS IMPORTANT THAT YOU DISCUSS THEM. THE FOLLOWING SHOULD BE ADDRESSED:*

1. ***DIRECT EFFECTS** ARE THOSE CAUSED BY THE ACTION AND OCCUR AT THE SAME TIME AND PLACE AS THE ACTION.*
2. ***INDIRECT EFFECTS** ARE CAUSED BY THE ACTION AND OCCUR AT A LATER TIME AND/OR PLACE AND ARE REASONABLY CERTAIN TO OCCUR.*

*CONSIDER PROJECT-RELATED **EFFECTS** TO IMPORTANT BEHAVIORS SUCH AS **FEEDING, BREEDING, SHELTERING, MIGRATION/MOVEMENT**, ETC. AND **HABITATS** THAT SUPPORT THESE BEHAVIORS IN YOUR ANALYSIS. IDENTIFY THE ANTICIPATED EFFECTS (BENEFICIAL AND ADVERSE) OF THE PROPOSED ACTION ON **EACH SPECIES**, THEIR HABITATS, AND **CRITICAL HABITAT**. **ANSWER THE FOLLOWING FOR YOUR EXPOSURE AND RESPONSE ANALYSIS:***

EXPOSURE ANALYSIS:

- ***WILL THERE BE** EXPOSURE TO STRESSORS?*
- ***WHAT** IS THE EXPOSURE?*
- ***WHERE** IS THE EXPOSURE?*
- ***WHEN** IS THE EXPOSURE?*
-
- *HOW MANY **INDIVIDUALS** WILL BE EXPOSED?*
- *WHAT IS THE **PROXIMITY** OF THE ACTION TO SPECIES OCCURRENCE, SPECIES AND HABITAT, ETC.?*
- *WHAT **TIME OF YEAR** THE ACTION WILL OCCUR RELATED TO CRITICAL PERIODS (E.G., REPRODUCTION, WINTERING, ETC.)?*
- *WHAT **HABITATS** WILL BE **AFFECTED**?*
- *WHAT IS THE **SPECIES DISTRIBUTION** OF WHERE **SPECIES OCCURS** IN YOUR ACTION AREA?*
- *WHAT IS THE **DURATION OF THE EFFECTS** (INCLUDE DIRECT EFFECTS AND INDIRECT EFFECTS) OF THE PROPOSED ACTION ON AFFECTED SPECIES (I.E., SHORT-TERM, LONG-TERM, OR PERMANENT)?*

- *WHAT IS THE DISTURBANCE **FREQUENCY** OF THE EVENT OR ACTION (I.E., HOW OFTEN THE EFFECT WILL OCCUR)?*

- *WHAT IS THE DISTURBANCE **INTENSITY** (I.E., HOW MUCH OF THE HABITAT WILL BE AFFECTED)?*

RESPONSE ANALYSIS:

- ***MOST IMPORTANTLY: WHAT IS THE SPECIES RESPONSE OF THESE SPECIES TO THESE EFFECTS?***

- *WHAT IS THE **PROBABILITY** OF THESE EFFECTS HAPPENING?*

- *WHAT IS THE **LIKELIHOOD OF A RESPONSE** FOR ANY GIVEN SPECIES?*

- *ARE THE EFFECTS **SHORT-TERM** (DEFINE TIME PERIOD) **LONG-TERM** (DEFINE TIME PERIOD?) OR BOTH? WHAT ARE THEY AND HOW IMPORTANT IS THIS?*

- *WHAT IS THE **SEVERITY** (I.E., HOW LONG WILL THE HABITAT TAKE TO RECOVER)?*

- *WHAT IS THE **NATURE OF THE EFFECTS** ON ELEMENTS OF THE SPECIES LIFECYCLE, POPULATION SIZE, VARIABILITY, OR DISTRIBUTION?*

- *WHAT **PART OF THE POPULATION** WILL BE AFFECTED BY THIS ACTION?*

- *WHAT IS THE **RELATIVE IMPORTANCE** OF THE ACTION AREA TO THE SPECIES ADDRESSED?*

VERY IMPORTANT:

- ***PROVIDE A CLEARLY DOCUMENTED PATH** OF **WHAT YOU CONSIDERED** IN YOUR ANALYSIS (ALL OF THE POTENTIAL EFFECTS) AND **HOW YOU ARRIVED AT YOUR DETERMINATION** BELOW - ARTICULATE YOUR **THOUGHT PROCESS** TO SUPPORT YOUR DETERMINATION (**PROVIDE RATIONALE**).*

*THE DEGREE OF **BIOLOGICAL RISK** IS A REFLECTION OF THE INTERPLAY BETWEEN THE NATURE OF THE PROJECT'S ACTIVITIES WITH THE CHARACTERISTICS OF SPECIES AND THEIR POPULATIONS POTENTIALLY USING THE AREA OR AFFECTED BY THE ACTION IN SOME WAY.*

- *LIMIT YOUR EFFECT DISCUSSION BY **CONNECTING THE PROJECT ACTIVITIES THAT MATTER TO EACH SPECIES** (E.G., HABITAT MODIFICATION, DISTURBANCE, ETC.) TO THE **POTENTIAL EFFECTS ON THE LIMITING FACTORS** OF THOSE SPECIES (AS YOU PREVIOUSLY DISCUSSED IN YOUR BA IN SECTION 6.2 – SPECIES STATUS AND BIOLOGY).*

- *CLEARLY AND SUCCINCTLY **TIE YOUR DISCUSSION TO YOUR DETERMINATIONS** OF EFFECT – **PROVIDE ENOUGH DISCUSSION WITH RATIONALE TO SUPPORT YOUR DETERMINATION BELOW!***

- *ENSURE THAT THE **DEPTH OF ANALYSIS** AND INFORMATION PRESENTED AMONG SPECIES ANALYZED IS **COMMENSURATE WITH THE LEVEL OF CONCERN** FOR A SPECIES OR ITS RELATIVE IMPORTANCE OF THE ACTION AREA.*

- *IF **CONSERVATION MEASURES/DESIGN CRITERIA/MITIGATION** AVOIDS OR MINIMIZES IMPACTS, YOUR DISCUSSION OF EFFECTS SHOULD **INCLUDE WHAT THEY ARE** HERE AND HOW THEY WILL AVOID/MINIMIZE IMPACTS.*

- *DETERMINE IF THERE IS A HIGHER LEVEL OF BIOLOGICAL RISK DUE TO GREATER SCIENTIFIC OR PROJECT **UNCERTAINTY**, RESULTING IN GREATER DEPTH OF INFORMATION AND ANALYSIS.*

*YOU CAN ALSO USE A **TABLE** TO REFLECT **CHANGES IN HABITAT DISTRIBUTION** TO ILLUSTRATE THE **AMOUNT AND RELATIVE SCOPE OF IMPACT** (SEE BELOW). **USE TABLES WHEREVER POSSIBLE** TO SHOW THE AMOUNT OF SPECIES' HABITAT(S) PRESENT AND HOW MUCH MAY BE AFFECTED BY THE ACTION CONSIDERED. INSERT THE FOLLOWING INTO YOUR BA:*

Table X. (SPECIES) habitat types present within the action area and percent of total.

Species XXX Habitat	Acres of habitat within the Action Area	Percent of habitat within the Action Area
Forage	*10,500*	*58*
Denning	*7,300*	*41*
Other	*150*	*1*
Unsuitable	*4,100*	*-*
Total habitat	*17,950*	*-*

Table X. Amount of (SPECIES) habitat affected by the proposed action within the action area and percent of total.

Species XXX Habitat	Acres Affected by No Action - Alt A (% change)	Acres Affected by Proposed Action - Alt B (% change)	Acres Affected by Alt C (% change)
Forage	*0*	*450 (4%)*	*700 (7%)*
Denning	*0*	*0 (0%)*	*45 (1%)*
Other	*0*	*50 (33%)*	*100 (66%)*
Unsuitable	*0*	*1500 (37%)*	*1750 (43%)*
Total habitat	*0*	*500 (3%)*	*845 (5%)*

** reflects the proposed action*

Cumulative Effects

***ONLY ADDRESS CUMULATIVE EFFECTS USING THE ESA DEFINITION – NOT THE NEPA DEFINITION** (SEE TEXT BELOW FOR DIFFERENCE IN DEFINITIONS). SEE THE DISCUSSION IN THE "BA GUIDEBOOK" FOR ADDITIONAL INFORMATION AS TO CONTENT FOR THIS SECTION*

ADDRESS CUMULATIVE EFFECTS FOR EACH SPECIES (CAN BE ADDRESSED BY TAXON, INDIVIDUAL SPECIES, GUILDS, LUMPED OR SEPARATELY – HOWEVER YOU CHOOSE). WHAT OTHER ACTIVITIES ARE GOING ON IN THE ACTION AREA AND WHAT ARE THEIR IMPACTS TO THE SPECIES ADDRESSED? INSERT THE FOLLOWING INTO YOUR BA:

Cumulative effects are defined differently under ESA and NEPA. Under ESA, cumulative effects are reasonably foreseeable future state, private and tribal activities only. For ESA cumulative effects, we do not consider the effects of past or future federal actions. ESA cumulative effects are additive to the environmental baseline (past and ongoing actions and their effects) we described above in Section 7.0 of this BA. Conversely, under NEPA, cumulative effects include all past and ongoing actions and their effects that are additive to the effects from all reasonably foreseeable future actions (federal and non-federal) as well. For ESA consultation purposes in this BA, we are using the ESA definition of cumulative effects.

Below is a summary of future federal and non-federal (private, state, or tribal only) activities that are reasonably likely to occur within the action area that directly and indirectly affect species/critical habitat addressed in this assessment. These are added to the environmental baseline (discussed above). *IN*

MANY INSTANCES, THESE PAST ACTIVITIES AND THEIR EFFECTS REMAIN TO THIS DAY AND ARE CURRENTLY ONGOING. LIST EACH ACTIVITY AND DESCRIBE THE EFFECTS TO EACH SPECIES ADDRESSED.

Interrelated and Interdependent Actions and Their Effects

*UNDER ESA, WE MUST ALSO CONSIDER THE EFFECTS OF OUR ACTIONS TOGETHER WITH THE **EFFECTS OF OTHER ACTIONS THAT ARE INTERRELATED TO, OR INTERDEPENDENT WITH THAT ACTION**. INSERT THE FOLLOWING INTO YOUR BA:*

Interrelated activities are part of the proposed action that depends on the action for their justification, and interdependent activities have no independent utility apart from the action. There are/no interrelated or interdependent actions associated with this action; therefore, there are/no anticipated adverse effects to this species. *IF THERE ARE ANY – WHAT ARE THE EFFECTS?*

Incidental Take

ALTHOUGH NOT REQUIRED, YOU MAY DISCLOSE HERE WHETHER YOU ANTICIPATE ANY "INCIDENTAL TAKE" AS DEFINED BY ESA TO OCCUR. A STATEMENT SUCH AS: "No incidental take (as defined by ESA) is anticipated for any federally listed species" *(IF APPROPRIATE) THIS CAN BE INCLUDED IN THIS SECTION. IF INCIDENTAL TAKE IS ANTICIPATED OR IF THERE IS A POTENTIAL FOR IT, FURTHER DISCUSSION IS WARRANTED. THIS WOULD HAVE IMPLICATIONS AS TO YOUR EFFECT DETERMINATION AS DISCUSSED BELOW.*

Effect Determination

*YOU MUST **CHOOSE ONLY ONE OF FOUR POSSIBLE ESA EFFECT DETERMINATION CHOICES** BELOW FOR **EACH** FEDERALLY **LISTED SPECIES** AND/OR DESIGNATED **CRITICAL HABITAT**. YOU MUST USE THE **EXACT PHRASE IN QUOTATION MARKS**.*

1. "**NO EFFECT" (NE)**

   *MEANS THERE ARE ABSOLUTELY **NO** EFFECTS OF THE ACTION, POSITIVE OR NEGATIVE TO A LISTED SPECIES OR DESIGNATED CRITICAL HABITAT. "**NO EFFECT**" DOES NOT INCLUDE A SMALL EFFECT OR AN EFFECT THAT IS UNLIKELY TO OCCUR; RATHER IT MEANS THERE WOULD BE **NO** EFFECTS WHAT SO EVER. PERIOD!*

   *IF EFFECTS ARE **INSIGNIFICANT** (IN SIZE) OR **DISCOUNTABLE** (EXTREMELY UNLIKELY), A "**MAY EFFECT, NOT LIKELY TO ADVERSELY AFFECT**" DETERMINATION IS MORE APPROPRIATE – **NOT "NO EFFECT"**.*

   *A "**NO EFFECT**" DETERMINATION BY DEFINITION IS AN EXTREMELY **HIGH THRESHOLD** TO MEET.*

   ***NO INCIDENTAL TAKE** OF A LISTED SPECIES CAN BE ANTICIPATED UNDER THIS DETERMINATION.*

   *PROJECTS WITH THIS DETERMINATION ARE **NOT** REQUIRED UNDER ESA TO BE SUBMITTED TO USFWS/NMFS FOR REVIEW OR CONCURRENCE.*

2. **"MAY AFFECT, NOT LIKELY TO ADVERSELY AFFECT" (NLAA)**

   *THIS DETERMINATION MEANS THAT ALL **DIRECT, INDIRECT EFFECTS** FROM THE PROPOSED ACTION OR ITS **INTERRELATED** OR **INTERDEPENDENT** ACTIONS TO A LISTED SPECIES OR DESIGNATED CRITICAL HABITAT ARE **INSIGNIFICANT** OR **DISCOUNTABLE**.*

   ***INSIGNIFICANT** EFFECTS RELATE TO THE VERY SMALL (IMMEASURABLE) SIZE OF THE IMPACT. **DISCOUNTABLE** EFFECTS ARE THOSE EXTREMELY UNLIKELY TO*

*OCCUR. AS DEFINED IN THE ENDANGERED SPECIES CONSULTATION HANDBOOK (1998), DISCOUNTABLE EFFECTS ARE - BASED ON BEST JUDGMENT, A PERSON WOULD NOT: (1) BE ABLE TO MEANINGFULLY MEASURE, DETECT, OR EVALUATE INSIGNIFICANT EFFECTS; OR (2) EXPECT DISCOUNTABLE EFFECTS TO OCCUR. IF THIS IS YOUR DETERMINATION – **YOU MUST SPECIALLY USE ONE OF BOTH OF THESE TERMS AS APPROPRIATE TO JUSTIFY THIS LOWER LEVEL OF EFFECT DETERMINATION**.*

***NO INCIDENTAL TAKE** OF A LISTED SPECIES CAN BE ANTICIPATED UNDER THIS DETERMINATION.*

*THIS DETERMINATION **REQUIRES INFORMAL** SECTION 7 CONSULTATION WITH USFWS/NMFS AND THEIR WRITTEN CONCURRENCE.*

3. **"MAY AFFECT, WHOLLY BENEFICIAL EFFECT" (BE)**
   *THIS DETERMINATION IS APPROPRIATE IF ALL EFFECTS ARE **ENTIRELY** BENEFICIAL OR POSITIVE WITHOUT **ANY** SHORT OR LONG-TERM ADVERSE EFFECTS TO THE SPECIES OR HABITAT.*

   ***NO INCIDENTAL TAKE** OF A LISTED SPECIES CAN BE ANTICIPATED UNDER THIS DETERMINATION.*

   *THIS DETERMINATION **REQUIRES INFORMAL** SECTION 7 CONSULTATION WITH USFWS/NMFS AND THEIR **WRITTEN CONCURRENCE**.*

4. **"MAY AFFECT, LIKELY TO ADVERSELY AFFECT" (LAA)**
   *THIS DETERMINATION MEANS THAT THERE IS **AT LEAST ONE ADVERSE EFFECT** THAT DOES NOT MEET THE ABOVE DEFINITIONS. THIS DETERMINATION IS APPROPRIATE IF THERE ARE **ANY ADVERSE EFFECTS** ON A LISTED **SPECIES** OR DESIGNATED **CRITICAL HABITAT** AS A **DIRECT** OR **INDIRECT** RESULT OF THE PROPOSED ACTION OR ITS **INTERRELATED** OR **INTERDEPENDENT** ACTIONS, AND THE EFFECT IS **NOT DISCOUNTABLE, INSIGNIFICANT, OR BENEFICIAL**.*

   *IF THE ADVERSE EFFECT CAN BE DETECTED IN ANY WAY OR IF IT CAN BE MEANINGFULLY ARTICULATED IN A DISCUSSION OF THE RESULTS, THEN IT IS **NOT** INSIGNIFICANT, AND THIS DETERMINATION IS APPROPRIATE.*

   *A **COMBINATION OF BENEFICIAL AND ADVERSE EFFECTS** IS STILL A "**MAY AFFECT, LIKELY TO ADVERSELY AFFECT**", EVEN IF THE NET EFFECT IS NEUTRAL OR POSITIVE. INCIDENTAL TAKE MAY OR MAY NOT BE ANTICIPATED.*

   *THIS DETERMINATION **REQUIRES FORMAL** SECTION 7 CONSULTATION WITH USFWS/NMFS AND THEY **MUST PREPARE A BO**.*

8.2 Critical Habitat

(IF PRESENT IN ACTION AREA) INCLUDE THIS IN A SEPARATE SECTION OR INCLUDE THIS TOPIC AS A SUBSECTION FOR THE ABOVE SPECIES.

Direct and Indirect Effects

THIS IS A PARALLEL YET TOTALLY SEPARATE ANALYSIS TO WHAT WAS DONE FOR LISTED SPECIES ABOVE**. WE MUST ALSO ASSESS THE EFFECTS OF OUR PROPOSED ACTIONS TO CRITICAL HABITAT – JUST AS WE HAVE DONE FOR EACH SPECIES. WE ALSO NEED TO **MAKE

AN EFFECT DETERMINATION *FOR EACH DESIGNATED CRITICAL HABITAT LATER IN THIS SECTION. IN TERMS OF EFFECT DETERMINATIONS, FEDERAL AGENCIES NEED TO TREAT CRITICAL HABITAT AS IF IT WERE ANOTHER LISTED SPECIES – THAT IS, A* ***SEPARATE EFFECT ANALYSIS AND DETERMINATION FOR EACH CRITICAL HABITAT DESIGNATION MUST BE PERFORMED****. REFER TO THE USFWS/NMFS' FEDERAL REGISTER* ***FINAL RULE*** *OR OTHER GUIDANCE DOCUMENTS ON DESIGNATED CRITICAL HABITAT FOR FURTHER DISCUSSION OF WHAT* ***PRIMARY CONSTITUENT ELEMENTS*** *ARE AND HOW THEY MAY BE AFFECTED BY MANAGEMENT ACTIVITIES. WHEN CONSIDERING CRITICAL HABITAT CONSIDER NOT ONLY THE CURRENT CONDITION OF THE HABITAT, BUT ALSO HOW YOUR ACTION MIGHT AFFECT THE ABILITY OF THE AREA TO BECOME SUITABLE IN THE FUTURE. WILL YOUR ACTION DELAY OR PROHIBIT ITS DEVELOPMENT OR OTHERWISE AFFECT THE QUALITY OF CRITICAL HABITAT NOW OR IN THE FUTURE?*

Cumulative Effects

ADDRESS CUMULATIVE EFFECTS FOR EACH DESIGNATED CRITICAL HABITAT (USE ***ESA DEFINITION*** *– SEE ABOVE DISCUSSION). WHAT OTHER ACTIVITIES ARE GOING ON AND WHAT ARE THEIR IMPACTS TO THE SPECIES ADDRESSED? SEE THE DISCUSSION IN THIS GUIDEBOOK FOR ADDITIONAL INFORMATION REGARDING THE CONTENT FOR THIS SECTION.*

Effect Determinations

YOU MUST CHOOSE ONLY ONE OF ***FOUR POSSIBLE ESA EFFECT DETERMINATION CHOICES*** *LISTED ABOVE FOR* ***EACH DESIGNATED CRITICAL HABITAT.*** *YOU MUST USE THIS EXACT* ***TERMINOLOGY*** *AS DEFINED ABOVE FOR FEDERALLY LISTED SPECIES.*

8.3 Proposed Species and Proposed Critical Habitat

(IF NEEDED)

Direct and Indirect Effects

USE THE SAME GUIDANCE FOR YOUR ANALYSIS OF DIRECT AND INDIRECT EFFECTS AS DESCRIBED ABOVE FOR FEDERALLY LISTED SPECIES.

Cumulative Effects

*ADDRESS CUMULATIVE EFFECTS FOR EACH SPECIES (****USE ESA DEFINITION*** *– SEE ABOVE DISCUSSION). WHAT OTHER ACTIVITIES ARE GOING ON AND WHAT ARE THEIR IMPACTS TO THE SPECIES ADDRESSED? SEE THE DISCUSSION ABOVE OF THIS GUIDE FOR ADDITIONAL INFORMATION AS TO CONTENT FOR THIS SECTION – ALTHOUGH YOUR DISCUSSION MAY BE SHORTER AND MORE ABBREVIATED.*

Effect Determination

YOU MUST ***CHOOSE ONLY ONE*** *OF THE BELOW* ***THREE POSSIBLE ESA EFFECT DETERMINATION*** *CHOICES FOR* ***EACH*** *FEDERALLY PROPOSED SPECIES AND/OR PROPOSED CRITICAL HABITAT. YOU MUST USE THIS EXACT TERMINOLOGY.*

1. *"****NO EFFECT****"*
   THIS MEANS THERE ARE ABSOLUTELY ***NO*** ***EFFECTS*** *OF THE ACTION, POSITIVE OR NEGATIVE (SAME AS ABOVE FOR LISTED SPECIES).*

2. *"****NOT LIKELY TO JEOPARDIZE THE CONTINUED EXISTENCE"*** OR ***"WILL NOT ADVERSELY MODIFY OR DESTROY PROPOSED CRITICAL HABITAT****"*
   THIS MEANS THE ACTION WILL ***NOT*** *JEOPARDIZE A PROPOSED SPECIES OR ADVERSELY MODIFY OR DESTROY PROPOSED CRITICAL HABITAT.*

3. "**LIKELY TO JEOPARDIZE/ADVERSELY MODIFY PROPOSED SPECIES/CRITICAL HABITAT"**
THIS IS THE APPROPRIATE CONCLUSION WHEN THE ACTION AGENCY CONCLUDES THE PROPOSED ACTION "IS LIKELY TO JEOPARDIZE A PROPOSED SPECIES," OR "ADVERSELY MODIFY OR DESTROY PROPOSED CRITICAL HABITAT." IF THIS CONCLUSION IS REACHED, A CONFERENCE WITH USFWS/NMFS IS REQUIRED.

8.4 State or Locally Listed Species of Concern

(IF INCLUDED)

IF YOU INCLUDE STATE OR LOCALLY LISTED SPECIES OR SPECIES OF CONCERN IN YOUR BA DOCUMENT – BE SURE TO SEPARATE YOUR DISCUSSION FOR EACH SPECIES OF THE DIRECT, INDIRECT, AND CUMULATIVE EFFECTS OF THE PROPOSED ACTION AND ALTERNATIVES INTO A SEPARATE SECTION FOR THOSE SPECIES.

Direct and Indirect Effects

USE THE SAME GUIDANCE FOR YOUR ANALYSIS OF DIRECT AND INDIRECT EFFECTS AS DESCRIBED ABOVE FOR FEDERALLY LISTED SPECIES.

Cumulative Effects

*ADDRESS CUMULATIVE EFFECTS FOR EACH SPECIES (**USE NEPA DEFINITION** – SEE ABOVE DISCUSSION). WHAT OTHER ACTIVITIES ARE GOING ON AND WHAT ARE THEIR IMPACTS TO THE SPECIES ADDRESSED? SEE THE DISCUSSION IN THE BA GUIDEBOOK FOR ADDITIONAL INFORMATION AS TO CONTENT FOR THIS SECTION.*

Effect Determinations

*THERE ARE NO STANDARD EFFECT DETERMINATION TERMINOLOGY FOR THESE SPECIES. IT IS SUGGESTED THAT YOU USE "***MAY IMPACT***" OR "***NO IMPACT***" DETERMINATIONS.*

9.0 Effect Determination Summary

*A **SUMMARY TABLE** CAN BE ALSO HELPFUL FOR ASSESSMENTS WITH MULTIPLE SPECIES AND DESIGNATED CRITICAL HABITAT. IF DESIRED, A SUMMARY OF THE DETERMINATIONS OF EFFECT CAN BE PRESENTED IN A TABLE. INSERT THE FOLLOWING INTO YOUR BA:*

Table X. Effect determinations for species addressed.

Common Name	Scientific Name	Status	Determinations of Effects[1]			
			Alt A	Alt B	Alt C (Proposed Action)	Alt D
XXX	*XXX*	Threatened	No Effect	NLAA	NLAA	NLAA
XXX	*XXXX*	Threatened	No Effect	NLAA	NLAA	NLAA
XXX	*XXXX*	Critical Habitat	No Effect	NLAA	NLAA	NLAA

[1] **NE**=no effect; **NLAA**=may affect, not likely to adversely affect; **LAA**=may affect, likely to adversely affect; **BE**=beneficial effect; **MI**=may impact; **NI**=no impact *(ONLY IF INCLUDING STATE/LOCAL SPECIES OF CONCERN)*

10.0 Additional Conservation Recommendations

(IF NEEDED)

*THIS IS WHERE YOU CAN **SUGGEST ADDITIONAL RECOMMENDATIONS**, CONSERVATION MEASURES OR MITIGATION TO FURTHER AVOID OR MINIMIZED ADVERSE EFFECTS TO LISTED SPECIES THAT **ARE NOT INCLUDED IN THE PROPOSED MANAGEMENT ACTION DESCRIPTION** (IDENTIFIED ABOVE). YOUR ANALYSIS AND EFFECT DETERMINATIONS ABOVE **SHOULD NOT CONSIDER THESE MEASURES** AS IF THEY WILL BE IMPLEMENTED. IF ADDITIONAL CONSERVATION MEASURES (OR MITIGATION) ARE RECOMMENDED, THEN ADDITIONAL DISCUSSION OF **HOW THEY MIGHT FURTHER AVOID OR MINIMIZE ADVERSE EFFECTS** TO LISTED SPECIES CAN BE INCLUDED HERE. ADOPTION OF RECOMMENDATIONS WOULD LIKELY REQUIRE **ADDITIONAL DISCUSSION** BY INTERDISCIPLINARY TEAM (IDT) MEMBERS AND NEPA ANALYSIS TO MODIFY THE PROPOSED ACTION.*

11.0 Need for Re-Assessment Based on Changed Conditions

INSERT THE FOLLOWING INTO YOUR BA:
This BA and findings above are based on the best current data and scientific information available. A new analysis and revised BA must be prepared if one or more of the following occurs: (1) new species information (including but not limited to a newly discovered activity area or other species information) reveals effects to threatened, endangered, proposed species, or designated/proposed critical habitat in a manner or to an extent not considered in this assessment; (2) the action is subsequently modified or it is not fully implemented as described herein which causes an effect that was not considered in this assessment; or (3) a new species is listed or critical habitat is designated which may be affected by the action that was not previously analyzed herein.

12.0 Literature Cited

*LIST ALL **CONTACTS, SOURCES OF DATA**, AND **SCIENTIFIC LITERATURE CITED** IN THIS DOCUMENT. IT IS IMPORTANT TO LIST ALL REFERENCES USED IN YOUR DOCUMENT.*

Appendices
(IF NEEDED)
*INCLUDE ANY **MAPS, PHOTOGRAPHS**, OTHER SUPPORTING OR **SUPPLEMENTAL MATERIAL** REFERRED TO IN THE DOCUMENT (IF NECESSARY).*

BA TEMPLATE – SHORTER FORMAT BA FOR ACTIONS WITHOUT EFFECTS ("*NO EFFECTS*" TO SPECIES OR CRITICAL HABITAT)

(EDIT HIGHLIGHTED AREAS AS APPROPRIATE – CAPITALIZED ITALICIZED WORDS ARE GUIDANCE)

NAME OF PROJECT
BIOLOGICAL ASSESSMENT – LIMITED SCOPE ASSESSMENT

XXXXXXXX **NATIONAL *PARK/MONUMENT***
NATIONAL PARK SERVICE – U.S. DEPARTMENT OF INTERIOR

DATE

Project Description and Location
*BRIEFLY BUT FULLY, DESCRIBE EACH OF THE MAJOR COMPONENTS OF THE PROPOSED MANAGEMENT ACTION SO THE READER HAS A GOOD UNDERSTANDING OF IT (E.G., **WHO** IS PROPOSING, **WHAT** IS PROPOSED, **WHEN** WILL IT OCCUR, **WHERE**, **WHY** [PURPOSE AND NEED], **HOW** WILL IT OCCUR, ETC.). PROVIDE ENOUGH INFORMATION SO THAT THE DOCUMENT CAN STAND ALONE; HOWEVER, THE NEPA DOCUMENT CAN BE REFERENCED FOR SOME SPECIFIC DETAILS. INFORMATION PROVIDED SHOULD BE SUFFICIENT TO PROVIDE A FOUNDATION FOR THE READER TO **CLEARLY UNDERSTAND OF WHAT IS PROPOSED** THAT WILL BE USED IN THE EFFECT ANALYSIS. SPECIFICS ARE HELPFUL (I.E., WHAT ARE THE COMPONENTS OF AN ACTION [BREAK IT DOWN – E.G., ALL PERM/TEMP ROADS, TYPES OF TREATMENTS, AND ALL OTHER ASSOCIATED ACTIVITIES]). INCLUDE ALL PERTINENT **CONSERVATION MEASURES**, DESIGN CRITERIA, OR MITIGATION THAT HAS BEEN BUILT IN TO REDUCE OR AVOID EFFECTS TO SPECIES. INCLUDE **MAPS, PHOTOS**, ETC. TO PROVIDE A BETTER UNDERSTANDING OF EXISTING CONDITIONS, WHAT ACTIONS ARE PROPOSED, AND WHERE THEY WILL BE LOCATED. SEE THE DISCUSSION ABOVE IN SECTION 6.3 OF THIS GUIDE FOR ADDITIONAL INFORMATION AS TO CONTENT FOR THIS SECTION – ALTHOUGH YOUR DISCUSSION MAY BE SHORTER AND MORE ABBREVIATED. INSERT THE FOLLOWING INTO YOUR BA:*

This proposed action consists of *XXXXXXXXXXXX*…..

Action Area Description
DEFINE THE ACTION AREA HERE.
*THIS IS THE AREA OF POTENTIAL (DIRECT AND INDIRECT) IMPACTS FROM YOUR PROPOSED ACTION ON THE **CHEMICAL, PHYSICAL**, AND **BIOTIC COMPONENTS** OF **LAND, AIR,** AND **WATER**. IT IS ESSENTIAL THIS IS DONE VERY EARLY TO DETERMINE THE GEOGRAPHIC BOUNDS/EXTENT AND SCALE OF YOUR ANALYSIS. DEFINING THE ACTION AREA NOW WILL HELP YOU DETERMINE WHICH SPECIES/CRITICAL HABITAT TO ADDRESS IN LATER SECTIONS OF THE BA. THE ACTION AREA DEFINES THE AREA OF INFLUENCE FOR YOUR ASSESSMENT FROM THE POTENTIAL EFFECTS OF YOUR ACTION, AND CUMULATIVE EFFECTS. YOUR ACTION AREA SHOULD ENCOMPASS ALL POTENTIAL IMPACTS TO LAND, AIR AND WATER THAT COULD AFFECT EACH SPECIES/CRITICAL HABITAT (E.G., INDIRECT EFFECTS OF NOISE, DUST, LIGHT, SEDIMENTATION, WATER QUALITY, OR OTHER IMPACTS THAT MAY AFFECT SPECIES). THIS AREA IS ALMOST ALWAYS LARGER THAN THE PROJECT FOOTPRINT. **THIS CAN BE DEFINED USING TEXT AND/OR GRAPHICALLY USING A MAP SHOWING YOUR ACTION AREA.***

WITHIN YOUR DEFINED ACTION AREA, NOW DESCRIBE THE ACTION AREA (E.G., PROJECT ***LOCATION*** *[I.E., COUNTY, STATE, NATIONAL PARK/MONUMENT/UNIT, AND LEGAL DESCRIPTION];* ***VEGETATION COMMUNITIES*** *AND ECOSYSTEM IN THE ACTION AREA AND VICINITY;* ***TOPOGRAPHY; CLIMATE****; AND* ***PROXIMITY TO NEARBY ROADS, TOWNS, OR OTHER LANDMARKS****, ETC.). GIVE ENOUGH INFORMATION TO THE READER SO THEY* ***KNOW WHAT THE VEGETATION AND HABITAT CONDITIONS ARE*** *PRESENT. ALWAYS INCLUDE A* ***MAP*** *(TOPOGRAPHIC MAPS ARE PARTICULARLY HELPFUL) IF NOT INCLUDED ABOVE. PROVIDE* ***PHOTOGRAPHS*** *INCLUDING AERIALS, IF AVAILABLE. WHAT DOES THE ACTION AREA LOOK LIKE NOW* ***(TOPOGRAPHY, VEGETATION, CONDITION/TREND, ETC.)****?*

FOR EXAMPLE: The action area is defined in Figure X. Vegetation types present within the action area consist of primarily mixed conifer and montane grassland. Conifer tree species present include ponderosa pine (*Pinus ponderosa*), white fir (*Abies concolor*), and Engelmann spruce (*Picea engelmannii*). There is little to no understory present. Forested areas are interspersed with a mosaic of montane grass/shrublands. Slopes are moderate, ranging from approximately 5% to 20% and are east and south-facing slopes. Elevations range from approximately 9,000-9,500 ft…

Evaluation
INSERT THE FOLLOWING INTO YOUR BA:

This form will aid in assessing the extent of the Biological Assessment (BA) based on the Pre-field Review. By following this checklist, the reviewer can determine if any federally listed threatened, endangered, and proposed (T&E) wildlife, fish, and/or plant species or designated critical habitat might be affected by the action. These species are listed in Table X below.

- **Federally listed or proposed species or critical habitat known in action area (check US Fish and Wildlife Service [USFWS] or National Marine Fisheries Service [NMFS] species lists, database, files, site records, and any other pertinent resources):** A species list from the USFWS/NMFS was obtained and reviewed for this action on XXXXX (*DATE*). *YOU MUST USE A CURRENT SPECIES LIST*. In addition, XXXX species database, park files, and references were consulted. There are no *(AS APPROPRIATE)* known locations of T&E species in the action area. *LIST EACH SPECIES THAT MAY BE PRESENT WITHIN THE ACTION AREA. WERE SURVEYS COMPLETED? WAS THE SITE VISITED? BY WHOM/WHEN?*

- **Habitats of listed or proposed species/critical habitat in the action area by the USFWS/NMFS:** No critical habitat has been proposed or designated by the USFWS/NMFS within the action area. The action area for this proposed action is defined as XXXX – *THIS MAY BE DIFFERENT FOR EACH SPECIES BASED ON THEIR HOME RANGES, AFFECTED AREA, ETC. – SEE DISCUSSION ABOVE.*

- **Habitats of state or locally listed species in the action area:** The action area for this proposed action is defined as XXXX – *THIS AREA IS DEFINED BY DIRECT AND INDIRECT EFFECTS TO **LAND**, **AIR**, AND **WATER** FROM YOUR PROPOSED ACTION – SEE DISCUSSION ABOVE.* There are no known locations of any T&E species in the action area. *WERE SURVEYS COMPLETED? WAS THE SITE VISITED? BY WHOM/WHEN?*

Species / Critical Habitat Within the Action Area
INSERT THE FOLLOWING INTO YOUR BA:

The action area was reviewed for potential/suitable habitat for T&E species. An official species list was obtained from the USFWS/NMFS IPaC website on (*DATE*). A review of this list was completed and species with no potential or suitable habitat, outside of the species' distributional range, outside of the species' elevational range were excluded from further review. Table X below lists those species that are known or could potentially occur on in the action area, species having the potential to occur within the action area based on habitat requirements and know locations, and those that have been excluded from further analysis with rationale. A brief description of their range and habitat is also included. *USE AND EDIT THE BELOW TABLE AS APPROPRIATE.*

Table X. Threatened, endangered, candidate/proposed species with the potential to occur within the action area and critical habitat. The USFWS/NMFS species list (USFWS 2013) was obtained from IPaC website on DATE and reviewed. Species/critical habitat not having the potential to occur were excluded from further review with a no effect determination with the below rationale.
[1] **Status Codes**: **E**=federally listed endangered; **T**=federally listed threatened; **P**= federally proposed for listing; **C**= federal candidate for listing; and **CH**=designated critical habitat *(IF YOU ARE ALSO INCLUDING STATE OR LOCALLY LISTED SPECIES INCLUDE CODE HERE AS WELL)*
[2] **Exclusion Rationale Codes**: **ODR**=outside known distributional range of the species; **HAB**= no habitat present in action area; **ELE**= outside of elevational range of species; and **SEA**=species not expected to occur during the season of use/impact

Species Common and Scientific Name	Status[1]	Potential to Occur	Critical Habitat	Rationale for Exclusion[2]	Habitat Description and Range in Action Area
INVERTEBRATES					
COMMON NAME *SCIENTIFIC NAME*	*E*	*No*	*No*	*HAB, ELE*	*known to only occur above timberline on Mt. XXX, laying eggs on snow willow (Salix nivalis); potentially occurring in XXX & XXX counties in XXX*
AMPHIBIANS AND REPTILES					
COMMON NAME *SCIENTIFIC NAME*	*C*	***YES***	*No*		*breeds in ponds & over winter in refugia within lodgepole pine, spruce-fir forests, & alpine meadows; 7,500-12,000 ft; XXX County has the only viable population in XXX*
BIRDS					
COMMON NAME *SCIENTIFIC NAME*	*T*	*No*	***YES***	*HAB*	*steep-sided canyons with old-growth mixed conifer forests, nesting on cliff ledges or caves along canyon walls in shady/cool canyons of the piñon/juniper zone in XXX*
MAMMALS					
COMMON NAME *SCIENTIFIC NAME*	*T*	*No*	***YES***	*HAB*	*old-growth coniferous and mixed conifer forests, denning under root wads, fallen trees/logs on steep shady/cool slopes in XXX*

(SUMMARIZE THE ABOVE TABLE) As indicated in the above table, there is one federally listed threatened or endangered, candidate/proposed species *(LIST THEM)* with the potential to occur (i.e., habitat is present) and one designated critical habitat within the action area. Therefore, only those species and critical habitat will be addressed hereafter in this assessment (evaluated species). The remaining species/critical habitat shown above without a potential to occur will not be analyzed further based on the rationale provided. The proposed action will have no effect on these other species or critical habitat.

INSERT THE FOLLOWING INTO YOUR BA:

STEP 1. Does the evidence indicate that no T&E species or possible habitat exists within the action area?

☐ **YES – "*No Effect*" determination. Attach a thorough explanation below, sign, and date this document (BA is complete).**

☒ **NO – Go on to STEP 2**

STEP 2. Based on knowledge of the proposed action and your assessment, can a "*No Effect*" determination be made?

☒ **YES – Complete the following sections, sign, and date this document (BA is complete).**

☐ **NO or CANNOT BE DETERMINED WITH AVAILABLE INFORMATION – BA cannot be completed.**

If you answered "YES" to any of the above questions, this document itself may act as a completed Biological Assessment. Please attach any species lists, explanatory rationale and/or supporting documents. However if "NO" or "CANNOT BE DETERMINED" was assessed, the biologist must gather the appropriate information to complete this assessment and return to STEP 2 above OR use another Biological Assessment format that is commensurate with more complex actions or those having a higher level of effect to listed species (such as "*may affect not likely to adversely affect*" or "*may affect, likely to adversely affect*" ESA determinations).

Consultation with USFWS/NMFS

*LIST ANY THAT HAS OCCURRED PREVIOUSLY **SPECIFIC TO THIS ACTION** – DATE, TYPE AND WITH WHOM. SEE THE DISCUSSION ABOVE FOR ADDITIONAL INFORMATION AS TO CONTENT FOR THIS SECTION.*

Environmental Baseline

*THIS SECTION IS **OPTIONAL** IF YOU INCLUDE – CONSIDER THE FOLLOWING:*

*WITHIN THE ACTION AREA (AS DEFINED ABOVE), BRIEFLY DISCUSS **PAST AND ONGOING ACTIVITIES (BOTH FEDERAL AND NON-FEDERAL) AND THEIR EFFECTS ON THE SPECIES ADDRESSED AND THE STATUS OF EACH SPECIES.** DESCRIBE THE FOLLOWING:*

- *RELEVANT **HISTORICAL CONDITIONS** AND **PAST MANAGEMENT** ACTIVITIES.*
- ***EXISTING DEVELOPMENTS AND HUMAN USES.***
- *DESCRIBE **CURRENT MANAGEMENT OR ACTIVITIES** RELEVANT TO THE ACTION AREA. HOW HAVE THEY **CHANGED HABITAT CONDITIONS**?*

IF INCLUDING THIS SECTION, INSERT THE FOLLOWING INTO YOUR BA:

As defined under the ESA, the environmental baseline includes past and present impacts of all federal, state, and private actions in the action area; the anticipated impacts of all proposed federal actions in the action area that have already undergone formal or early section 7 consultation; and the impact of state and private actions which are contemporaneous with the section 7 consultation process. Future actions and their potential effects are not included in the environmental baseline. This section defines the current status of the species and its habitat in the action area and provides a platform to assess the effects of the proposed action under consultation with USFWS/NMFS.

Federally Listed Species

*SEPARATE FEDERALLY LISTED SPECIES ACCORDING TO TAXA (E.G., UNDER HEADINGS SUCH AS "***WILDLIFE", "FISH",** *AND* **"PLANTS"***). FOR EACH SPECIES, DISCUSS THE DIRECT, INDIRECT, AND CUMULATIVE EFFECTS, WHETHER THEY WILL BE ANY ANTICIPATED INCIDENTAL TAKE, AND YOUR EFFECT DETERMINATION (THERE SHOULD BE NO TAKE IF USING THIS FORMAT).*

Direct and Indirect Effects

TO USE THIS SHORT-FORM BA, THERE MUST BE "NO EFFECT" TO SPECIES OR THEIR HABITATS.

THIS IS THE ***MOST IMPORTANT SECTION OF YOUR ANALYSIS*** *WHICH* ***MUST SUPPORT YOUR "NO EFFECT" DETERMINATION*** *BELOW. CONSIDER THE FOLLOWING TO USE IN YOUR RATIONALE TO SUPPORT THIS DETERMINATION FOR EACH SPECIES/CRITICAL HABITAT ADDRESSED:*

FOR EACH SPECIES *– WHAT ARE THE* ***DIRECT AND INDIRECT EFFECTS*** *OF THE PROPOSED ACTION ON EACH SPECIES/HABITAT?* ***YOU DO NOT NEED TO SEPARATE OUT DIRECT FROM INDIRECT EFFECTS UNDER SEPARATE HEADINGS,*** *BUT IT IS IMPORTANT THAT YOU DISCUSS THEM. THE FOLLOWING SHOULD BE ADDRESSED:*

1. ***DIRECT EFFECTS*** *ARE THOSE CAUSED BY THE ACTION AND OCCUR AT THE SAME TIME AND PLACE AS THE ACTION.*
2. ***INDIRECT EFFECTS*** *ARE CAUSED BY THE ACTION AND OCCUR AT A LATER TIME AND/OR PLACE AND ARE REASONABLY CERTAIN TO OCCUR.*

ANSWER THE FOLLOWING:

- *WHAT IS THE* ***PROXIMITY*** *OF THE ACTION TO SPECIES OCCURRENCE, HABITAT, ETC.?*
- *WHAT* ***TIME OF YEAR*** *THE ACTION WILL OCCUR RELATED TO CRITICAL PERIODS (E.G., REPRODUCTION, WINTERING, ETC.)?*
- *WHAT* ***HABITATS*** *WILL BE* ***AFFECTED****?*
- *WHAT IS THE* ***DISTRIBUTION*** *OF WHERE* ***SPECIES OCCURS*** *IN YOUR ACTION AREA?*
- *WHAT IS THE* ***DURATION OF THE EFFECTS*** *(INCLUDE DIRECT EFFECTS AND INDIRECT EFFECTS) OF THE PROPOSED ACTION ON AFFECTED SPECIES (I.E., SHORT-TERM, LONG-TERM, OR PERMANENT EVENTS)?*
- *WHAT IS THE DISTURBANCE* ***FREQUENCY*** *OF THE EVENT OR ACTION (I.E., HOW OFTEN THE EFFECT WILL OCCUR)?*
- *WHAT IS THE DISTURBANCE* ***INTENSITY*** *(I.E., HOW MUCH OF THE HABITAT WILL BE AFFECTED)?*
- ***MOST IMPORTANTLY: WHAT IS THE SPECIES RESPONSE OF THESE SPECIES TO THESE EFFECTS?***
- *WHAT IS THE* ***PROBABILITY*** *OF THESE EFFECTS HAPPENING?*
- *WHAT IS THE* ***LIKELIHOOD OF A RESPONSE*** *FOR ANY GIVEN SPECIES?*

- *ARE THE EFFECTS **SHORT-TERM** (DEFINE TIME PERIOD) **LONG-TERM** (DEFINE TIME PERIOD?) OR BOTH? WHAT ARE THEY AND HOW IMPORTANT IS THIS?*

- *WHAT IS THE **SEVERITY** (I.E., HOW LONG WILL THE HABITAT TAKE TO RECOVER)?*

- *WHAT IS THE **NATURE OF THE EFFECTS** ON ELEMENTS OF THE SPECIES LIFECYCLE, POPULATION SIZE, VARIABILITY, OR DISTRIBUTION?*

- *WHAT **PART OF THE POPULATION** WILL BE AFFECTED BY THIS ACTION?*

- *WHAT IS THE **RELATIVE IMPORTANCE** OF THE ACTION AREA TO THE SPECIES ADDRESSED?*

VERY IMPORTANT:

- ***PROVIDE A CLEARLY DOCUMENTED PATH** OF **WHAT YOU CONSIDERED** IN YOUR ANALYSIS (ALL OF THE POTENTIAL EFFECTS) AND **HOW YOU ARRIVED AT YOUR DETERMINATION** BELOW - ARTICULATE YOUR **THOUGHT PROCESS** TO SUPPORT YOUR DETERMINATION (**PROVIDE RATIONALE**).*

Cumulative Effects

*ADDRESS CUMULATIVE EFFECTS FOR EACH SPECIES (USE **ESA** DEFINITION NOT NEPA– SEE THE DISCUSSION IN THE BA GUIDEBOOK FOR ADDITIONAL INFORMATION AS TO CONTENT FOR THIS SECTION). WHAT **OTHER ACTIVITIES ARE GOING ON** AND WHAT ARE **THEIR IMPACTS** TO THE SPECIES ADDRESSED? (THIS CAN BE ADDRESSED BY TAXON, INDIVIDUAL SPECIES, AND GUILDS, LUMPED OR SEPARATELY – HOWEVER YOU CHOOSE). THIS DISCUSSION **MAY BE SHORTER** AND MORE **ABBREVIATED** FOR THIS NO EFFECT BA FORMAT. INSERT THE FOLLOWING INTO YOUR BA:*

Cumulative effects are defined differently under ESA and NEPA. Under ESA, cumulative effects are reasonably foreseeable future state, private and tribal activities only. For ESA cumulative effects, we do not consider the effects of past or future federal actions. ESA cumulative effects are additive to the environmental baseline (past and ongoing actions and their effects) we described above in that section of the BA. Conversely, under NEPA, cumulative effects include all past and ongoing actions and their effects that are additive to the effects from all reasonably foreseeable future actions (federal and non-federal) as well. For ESA consultation purposes in this BA, we are using the ESA definition of cumulative effects.

Below is a summary of future non-federal (private, state, or tribal only) activities that are reasonably likely to occur within the action area that directly and indirectly affect species/critical habitat addressed in this assessment. These are added to the environmental baseline (discussed above). *IN MANY INSTANCES, THESE PAST ACTIVITIES AND THEIR EFFECTS REMAIN TO THIS DAY AND ARE CURRENTLY ONGOING. LIST EACH ACTIVITY AND DESCRIBE THE EFFECTS TO EACH SPECIES ADDRESSED.*

Interrelated and Interdependent Actions

*IDENTIFY IF THERE ARE ANY INTERDEPENDENT OR INTERRELATED ACTIONS (DEFINED EARLIER IN THIS GUIDE) AND IF SO WHAT THE EFFECTS OF THESE ACTIVITIES MIGHT BE. **RARELY** WILL THERE BE ANY FOR SIMPLE AND STRAIGHT FORWARD ACTIONS FOR WHICH THIS BA SHORT-FORM BA IS INTENDED. INSERT THE FOLLOWING INTO YOUR BA:*

There are no interdependent or interrelated actions associated with this action.

Incidental Take
*THIS SHORTER VERSION BA IS INTENDED FOR ACTIONS THAT HAVE A "**NO EFFECT**" DETERMINATION FOR FEDERALLY LISTED SPECIES ONLY. BY DEFINITION, THERE **CANNOT** BE **ANY** INCIDENTAL TAKE OF A LISTED SPECIES FOR ACTIONS WITH THIS DETERMINATION. IT IS IMPORTANT TO STATE THERE WILL NOT BE ANY INCIDENTAL TAKE. INSERT THE FOLLOWING INTO YOUR BA:*

There will be no incidental take of any federally listed species under this proposed action.

Critical Habitat *(IF DESIGNATED BY USFWS/NMFS)*
*IF USFWS/NMFS HAS DESIGNATED CRITICAL HABITAT WE MUST ALSO **DETERMINE THE EFFECTS** OF OUR PROPOSED ACTIONS TO CRITICAL HABITAT – JUST AS WE HAVE DONE FOR EACH SPECIES. ADDRESS THE DIRECT, INDIRECT, AND CUMULATIVE EFFECTS TO CRITICAL HABITAT.*

*FEDERAL AGENCIES NEED TO TREAT CRITICAL HABITAT AS IF IT WERE ANOTHER LISTED SPECIES – THAT IS A **SEPARATE** EFFECT **ANALYSIS** AND **DETERMINATION**. YOU MUST MAKE A SEPARATE DETERMINATION FOR **EACH** SPECIES' CRITICAL HABITAT USING THE ABOVE DETERMINATIONS.*

TO USE THIS SHORT-FORM BA, THERE MUST BE "NO EFFECT" TO DESIGNATED CRITICAL HABITAT.

Direct and Indirect Effects
*USE THE **SAME GUIDANCE** FOR YOUR EFFECT ANALYSIS AS DESCRIBED ABOVE FOR EACH FEDERALLY LISTED SPECIES. YOUR EFFECTS ANALYSIS FOR CRITICAL HABITAT IS DONE SEPARATELY FROM THE SPECIES.*

Cumulative Effects
*ADDRESS CUMULATIVE EFFECTS FOR EACH SPECIES (USE **ESA** DEFINITION). WHAT **OTHER ACTIVITIES** ARE GOING ON AND **WHAT ARE THEIR IMPACTS** TO THE SPECIES ADDRESSED? SEE THE DISCUSSION IN THE "BA GUIDEBOOK" FOR ADDITIONAL INFORMATION AS TO CONTENT FOR THIS SECTION – ALTHOUGH THIS DISCUSSION MAY BE SHORTER AND MORE ABBREVIATED FOR THIS NO EFFECT BA FORMAT.*

Proposed Species and Proposed Critical Habitat *(IF NEEDED)*
*ADDRESS THE **DIRECT, INDIRECT, AND CUMULATIVE EFFECTS** TO EACH FEDERALLY PROPOSED SPECIES AND CRITICAL HABITAT. USE THE SAME GUIDANCE FOR YOUR EFFECT ANALYSIS AS DESCRIBED ABOVE FOR FEDERALLY LISTED SPECIES.*

Direct and Indirect Effects
USE THE SAME GUIDANCE FOR YOUR EFFECT ANALYSIS AS DESCRIBED ABOVE FOR EACH FEDERALLY LISTED SPECIES.

Cumulative Effects
*ADDRESS CUMULATIVE EFFECTS FOR EACH SPECIES (**USE ESA DEFINITION**). WHAT **OTHER ACTIVITIES** ARE GOING ON AND **WHAT ARE THEIR IMPACTS** TO THE SPECIES ADDRESSED? SEE THE DISCUSSION IN THE "BA GUIDEBOOK" FOR ADDITIONAL INFORMATION AS TO CONTENT FOR THIS SECTION – ALTHOUGH THIS DISCUSSION MAY BE SHORTER AND MORE ABBREVIATED FOR THIS NO EFFECT BA FORMAT.*

Effect Determinations for Listed/Proposed Species and Designated/Proposed Critical Habitat
*BECAUSE YOUR EFFECT DETERMINATIONS ARE THE SAME ("**NO EFFECT**") FOR ALL SPECIES/CRITICAL HABITAT, YOU CAN LUMP YOUR DETERMINATIONS TOGETHER.*

*THIS SHORTER VERSION BA IS INTENDED ONLY FOR ACTIONS THAT HAVE A "**NO EFFECT**" DETERMINATION FOR FEDERALLY LISTED/PROPOSED SPECIES AND DESIGNATED/PROPOSED CRITICAL HABITAT. INSERT THE FOLLOWING IN YOUR BA:*

Based on the above rationale, habitat for T&E species addressed in this assessment will not be affected with this action. Therefore, there would be "***no effect***" to any federally listed or proposed species (listed in Table X above) or designated or proposed critical habitat from the proposed management action.

State or Locally Listed Species of Concern (*IF INCLUDED*)
***IF** YOU INCLUDE STATE OR LOCALLY LISTED SPECIES OR SPECIES OF CONCERN IN YOUR BA, BE SURE TO **SEPARATE YOUR DISCUSSION FOR THESE SPECIES INTO A SEPARATE SECTION** FROM FEDERALLY LISTED/PROPOSED SPECIES. **ANALYSIS OF NON-LISTED SPECIES OR PROPOSED IS NOT REQUIRED UNDER THE ACT.** THE USFWS/NMFS WILL **NOT** BE REVIEWING YOUR ANALYSIS FOR THOSE SPECIES.*

*ADDRESS THE **DIRECT, INDIRECT, AND CUMULATIVE EFFECTS** TO STATE OR LOCALLY LISTED SPECIES OF CONCERN. USE THE SAME GUIDANCE FOR YOUR EFFECT ANALYSIS FOR THESE SPECIES AS DESCRIBED ABOVE FOR FEDERALLY LISTED SPECIES. THERE IS NO STANDARD EFFECT DETERMINATION TERMINOLOGY FOR THESE SPECIES. IT IS SUGGESTED THAT YOU USE **"MAY IMPACT"** OR **"NO IMPACT"** DETERMINATIONS.*

Direct and Indirect Effects
USE THE SAME GUIDANCE FOR YOUR EFFECT ANALYSIS AS DESCRIBED ABOVE FOR EACH FEDERALLY LISTED SPECIES.

Cumulative Effects
*ADDRESS CUMULATIVE EFFECTS FOR EACH SPECIES (**USE ESA DEFINITION**). **WHAT OTHER ACTIVITIES** ARE GOING ON AND **WHAT ARE THEIR IMPACTS** TO THE SPECIES ADDRESSED? SEE THE DISCUSSION IN THE "BA GUIDEBOOK" FOR ADDITIONAL INFORMATION AS TO CONTENT FOR THIS SECTION – ALTHOUGH THIS DISCUSSION MAY BE SHORTER AND MORE ABBREVIATED FOR THIS NO EFFECT BA FORMAT.*

Effect Determination for State or Locally Listed Species of Concern (*IF INCLUDED*)
*THIS SHORTER VERSION BA IS ONLY INTENDED FOR ACTIONS THAT HAVE **NO IMPACTS** TO STATE OR LOCAL SPECIES OF CONCERN. THERE IS NOT STANDARD EFFECT DETERMINATION TERMINOLOGY FOR THESE SPECIES. IT IS SUGGESTED THAT YOU USE "**MAY IMPACT**" OR "**NO IMPACT**" DETERMINATIONS. INSERT THE FOLLOWING INTO YOUR BA:*

Based on the above rationale, habitat for State or locally listed species of concern addressed in this assessment will not be affected with this action. Therefore, there would be "***no impact***" to any of these species (listed in Table X above) from the proposed management action.

Additional Conservation Recommendations
*THESE ARE **RECOMMENDATIONS ONLY – NOT REQUIREMENTS**. YOUR ANALYSIS AND DETERMINATIONS SHOULD NOT BE BASED ON WHETHER THEY ARE IMPLEMENTED OR NOT. LIST ANY ADDITIONAL RECOMMENDATIONS HERE.*

Need for Re-Assessment Based on Changed Conditions
*INCLUDE A STATEMENT OF WHEN A RE-ASSESSMENT **IS** REQUIRED. INSERT THE FOLLOWING INTO YOUR BA:*

This BA and findings above are based on the best current data and scientific information available. A new analysis and revised BA must be prepared if one or more of the following occurs: (1) new species information (including but not limited to a newly discovered activity area or other species information) reveals effects to threatened, endangered, proposed species, or designated/proposed critical habitat in a manner or to an extent not considered in this assessment; (2) the action is subsequently modified or it is not fully implemented as described herein which causes an effect that was not considered in this assessment; or (3) a new species is listed or critical habitat is designated that may be affected by the action not analyzed herein.

Prepared by: *SIGN AND DATE YOUR DOCUMENT. INSERT THE FOLLOWING:*

/s/ **Your Name** DATE
YOUR TITLE Date

/s/ **Other's Name** (if necessary) DATE
THEIR TITLE Date

References Cited
LIST ALL CONTACTS, SOURCES OF DATA, AND SCIENTIFIC LITERATURE CITED IN THIS DOCUMENT.

Supporting Documentation
IF NECESSARY