CHAPTER 4 - FORMAL CONSULTATION

"Each Federal agency shall, in consultation with and with the assistance of the Secretary, insure that any action authorized, funded, or carried out by such agency...is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species which is determined...to be critical.... In fulfilling the requirements of this paragraph each agency shall use the best scientific and commercial data available."

Section 7(a)(2) of the Endangered Species Act

4.1 THE FORMAL CONSULTATION PROCESS

Formal consultations determine whether a proposed agency action(s) is likely to jeopardize the continued existence of a listed species (**jeopardy**) or destroy or adversely modify critical habitat (**adverse modification**) (Figure 4-1). They also determine the amount or extent of anticipated incidental take in an incidental take statement. Formal consultations perform several other functions: they (1) identify the nature and extent of the effects of Federal (agency) actions on listed species and critical habitat; (2) identify reasonable and prudent alternatives, if any, when an action is likely to result in **jeopardy** or **adverse modification**; (3) provide an exception for specified levels of "incidental take" otherwise prohibited under section 9 of the Act; (4) provide mandatory reasonable and prudent measures to minimize the impacts of incidental take to listed species; (5) identify ways the action agencies can help conserve listed species or critical habitat when they undertake an action; and (6) provide an administrative record of effects on species that can help establish the species' environmental baseline in future biological opinions.

Natural Resources Defense Council
Delta-Mendota Water Authority
cited in San Luis & Delta-Mendota Water Authority v. Jewell, No. 1:1-15871 archived on March 28, 2014

If an action agency determines a proposed action "may affect" listed species or designated critical habitat, formal consultation is required. (For procedures to be taken when the action agency determines that a proposed action "may jeopardize the continued existence" of a proposed species or "may adversely modify" proposed critical habitat see Chapter 6, Conference). No formal consultation is required if the action agency finds, with the Services written concurrence that the proposed action "may affect, but is not likely to adversely affect" listed species or critical habitat (see Chapter 3, Informal Consultation). This finding can be made only if ALL of the reasonably expected effects of the proposed action will be beneficial, insignificant, or discountable. The action agency must request concurrence, in writing, from the Service for this finding. When action agencies request formal consultation on actions not likely to adversely affect listed species or designated critical habitat, the Services should explain that informal consultation/concurrence letters are adequate to complete section 7 compliance, but that they will enter into formal consultation if the action agency desires.

Although the formal consultation process must result in a biological opinion reaching either a **jeopardy** or **no jeopardy** to listed species (or **adverse** or **no adverse modification** of critical habitat) finding, the process is flexible and can be adapted at any point to respond to project modifications agreed to by the action agency or the applicant. Moreover, in locations where numerous actions impact a species, changes in the baseline due to successive effects can be addressed on a continuing basis using biological opinions. Such a series of biological opinions can be used like building blocks to first establish a concern, then warn of potential impacts, and finally result in a **jeopardy** call. Successive biological opinions can be used to monitor trends in the species' baseline, making predictions of the impacts of future actions more reliable. Extrapolation of a diminishing baseline can help show where future **jeopardy** thresholds may be reached.

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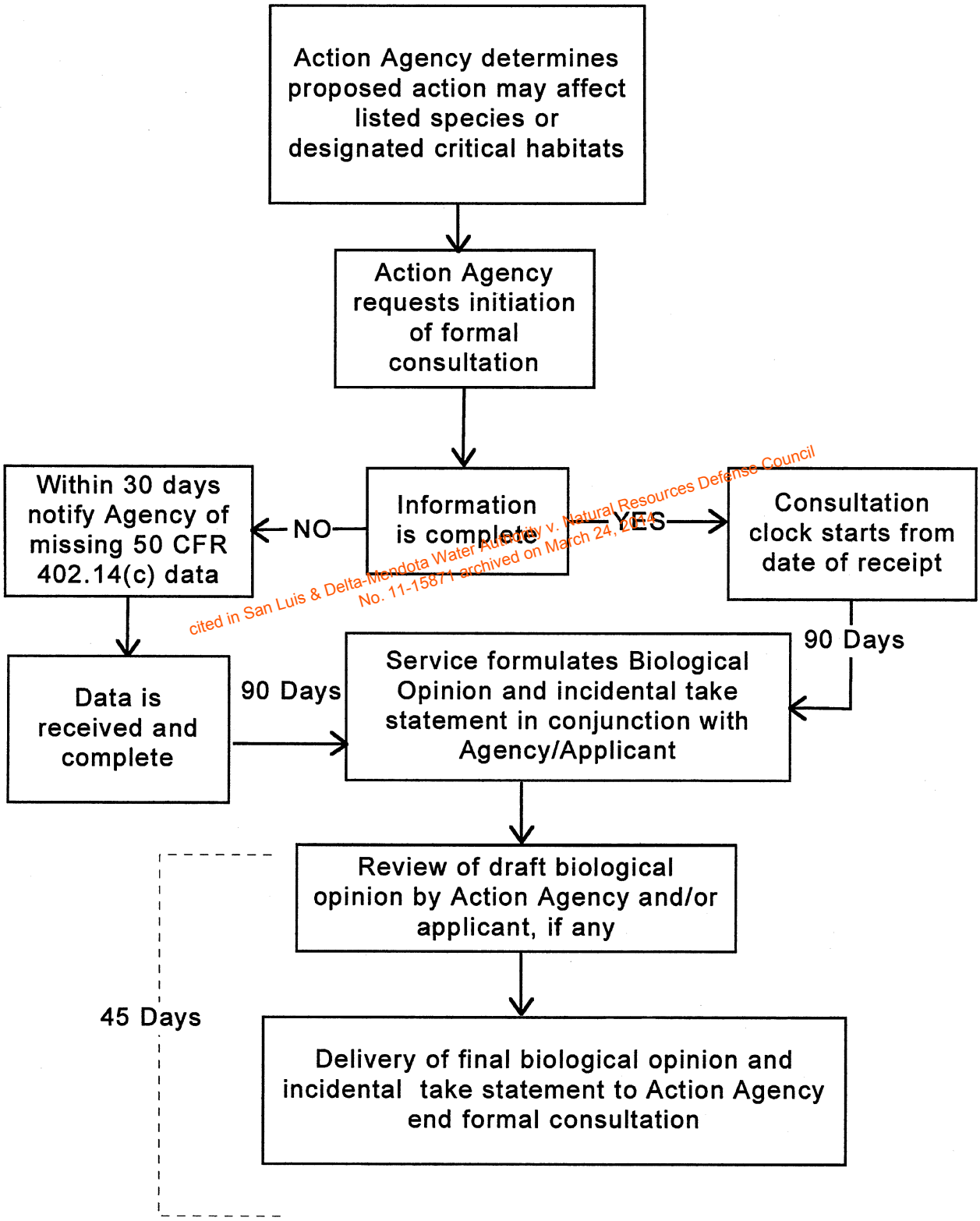
No. 11-15871 archived on March 24, 2014

Figure 4-1. Formal consultation process.



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4.2 INITIATING FORMAL CONSULTATION

Action agencies initiate formal consultation through a written request to the Services. For a major construction activity, the action agency is required to submit a biological assessment if listed species or designated critical habitat may be present in the action area. This biological assessment, including a description of the effects of the action, must be submitted within 180 days of receipt of a species list from the Services. The accuracy of the species list needs to be verified if it is more than 90 days old and work on preparing the assessment has not begun. Formal consultation is necessary even when the action is not a major construction activity if a "may affect" situation exists. Although there is no specific timeframe within which the action agency must submit an initiation package, agencies must review their actions "at the earliest possible time" to determine whether formal consultation is required. If a "may affect" situation exists, formal consultation must be initiated promptly. To comply with the section 7 regulations (50 CFR §402.14(c)), the initiation package is submitted with the request for formal consultation and must include all of the following:

- a description of the action being considered;
- a description of the specific area that may be affected by the action;
- a description of any listed species or critical habitat that may be affected by the action;
- a description of the manner in which the action may affect any listed species or critical habitat, and an analysis of any cumulative effects;
- relevant reports, including any environmental impact statements, environmental assessments, biological assessment or other analyses prepared on the proposal; and
- any other relevant studies or other information available on the action, the affected listed species, or critical habitat.

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The action agency can initiate formal consultation on a number of similar actions within the same geographic area (see section 5.3, Regional or Ecosystem Consultations) or a portion of a comprehensive plan of action (see section 5.5, Incremental Step Consultations), as long as the effects of the entire action are considered. The information provided by an action agency must include the best scientific and commercial data available.

4.3 EVALUATING INITIATION PACKAGES

An action agency's package initiating consultation needs to be reviewed promptly by the Services to determine if: (1) all of the information required by the regulations has been provided;

and (2) whether the information includes the best scientific and commercial data available. The "other relevant information" requirement gives the Services an opportunity to determine what project-specific information is needed to develop the biological opinion. The action agency is obligated to submit the best data available or "which can be obtained during the consultation ...." (50 CFR §402.14(d)). Although not required by 50 CFR §402.14, a topographic map showing the affected area is a useful addition to the initiation package.

4.4 FORMAL CONSULTATION PROCEDURES

(A) Timeframes for Formal Consultation

> ***"(1)(A) Consultation under subsection (a)(2) with respect to any agency action shall be concluded within the 90-day period beginning on the date on which initiated or, subject to subparagraph (B), within such other period of time as is mutually agreeable to the Secretary and the Federal agency;***
> ***(B) in the case of an agency action involving a permit or license applicant, the Secretary and the Federal agency may not mutually agree to conclude consultation within a period exceeding 90 days unless the Secretary, before the close of the 90th day referred to in subparagraph (A) -***
> ***(i) if the consultation period proposed to be agreed to will end before the 150th day after the date on which consultation was initiated, submits to the applicant a written statement setting forth -***
> ***(I) the reasons why a longer period is required;***
> ***(II) the information that is required to complete the consultation; and***
> ***(III) the estimated date on which consultation will be completed; or***
> ***(ii) if the consultation period proposed to be agreed to will end 150 or more days after the date on which consultation was initiated, obtains the consent of the applicant to the extension."***
>
> **Section 7(b) of the Endangered Species Act**

cited in San Luis & Delta-Mendota Water Authority v. Natural Resources Defense Council No. 11-1724, archived on March 24, 2014

The Act and the section 7 regulations require that formal consultation be concluded within 90 calendar days (all further references to days in this Handbook mean calendar days) of initiation, and the regulations require that the biological opinion be delivered to the action agency within 45 days after the conclusion of formal consultation. The Services strive to issue all biological opinions within the 90-day period; however, the Services may use the additional 45 days when circumstances warrant.

Formal consultation is "initiated" on the date the request is received, if the action agency provides all the relevant data required by 50 CFR §402.14(c). If all required data are not initially submitted, then formal consultation is initiated on the date on which all required information has

been received. Within 30 working days of receipt of an initiation package, the Services should provide written acknowledgment of the consultation request, advise the action agency of any data deficiencies, and request either the missing data or a written statement that the data are not available. Exhibits 4-1 and 4-2 are examples of letters for situations with and without all required data. This acknowledgement process is optional, but it is highly recommended that either a letter or phone conversation record be placed in the administrative record to document the actual initiation date, particularly if the need to acquire additional data extends the consultation time frame beyond 90 days from the initial receipt of a consultation request.

During the initial 90-day formal consultation period, the Services should meet or communicate with the action agency and an applicant, if any, to gather any additional information necessary to conduct the consultation. The 90-day period should be used to:

- assess the status of the species and/or critical habitat involved;
- verify the scope of the proposed action, which includes identifying the area likely to be affected directly and indirectly by the proposed action, and cumulative effects;
- identify adverse effects likely to result in **jeopardy** to the species and/or **adverse modification** of critical habitat;
- develop reasonable and prudent alternatives to an action likely to result in **jeopardy** or **adverse modification**;
- identify adverse effects not likely to jeopardize listed species, but which constitute "take" pursuant to section 9 of the Act;
- develop reasonable and prudent measures, and terms and conditions for the incidental take statement as appropriate; and
- identify conservation recommendations, as appropriate.

San Luis & Delta-Mendota Water Authority v. Natural Resources Defense Council
No. 11-15871, archived on March 24, 2014
cited on March 28, 2014

These actions should be undertaken cooperatively with the action agency and any applicant, thus allowing the Services to develop a better understanding of direct and indirect effects of a proposed action and any cumulative effects in the action area. Action agencies also have the project expertise necessary to help identify reasonable and prudent alternatives, and reasonable and prudent measures. Other interested parties (including the applicant, and affected State and tribal governments) should also be involved in these discussions. However, before contacting other interested parties, contact the action agency to assess the level of direct involvement they will allow other interested parties to assume. These cooperative efforts should be documented for the administrative record.

The Services ensure the biological opinion, including an incidental take statement, is prepared and delivered within 135 days of initiation of formal consultation. The consultation timeframe cannot be "suspended." If the Services need more time to analyze the data or prepare the final opinion, or the action agency needs time to provide data or review a draft opinion, an extension may be requested by either party. Both the Services and the action agency must agree to the extension. Extensions should not be indefinite, and should specify a schedule for completing the consultation. If an applicant is involved in the project, extension must follow the procedures outlined by section 7(b)(1)(B) of the Act (Exhibit 4-3). In accordance with 50 CFR §402.14(e), a consultation involving an applicant cannot be extended for more than 60 days without the consent of the applicant.

No final biological opinion will be issued before the 135th day if the action agency is still reviewing the draft. Once the Services receive comments on the draft, the biological opinion is finalized and delivered to the action agency and applicant, if any. Do not release or distribute the draft biological opinion. If comments on the draft opinion result in major changes or clarifications, the Services can seek an extension. When the Services have not received the action agency's comments by the 125th day, the Services should check with the action agency (by telephone or in writing) to negotiate an extension. If the Services receive the comments of the action agency less than 10 calendar days before the end of the established deadline of 135 days or as otherwise established by an agreed upon extension, then the Services are automatically entitled to a 10 calendar day extension of that deadline to deliver the opinion (50 CFR §402.14 (g)(5)).

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No. 11-15871 archived on March 24, 2014

Exhibit 4-1. Example of a letter sent to inform action agencies the Services have received a complete initiation package and will begin formal consultation on a proposed action.

(date)

Dear _____ :

This letter acknowledges the U.S. Fish and Wildlife Service's [or National Marine Fisheries Service's] (Service) [date of receipt of letter initiating consultation] receipt of your [date of agency's initiating letter] letter requesting initiation of formal section 7 consultation under the Endangered Species Act. The consultation concerns the possible effects of your proposed [name and location of the action] on [name of listed species and/or critical habitats affected].

All information required of you to initiate consultation was either included with your letter or is otherwise accessible for our consideration and reference. We have assigned log number [log number] to this consultation. Please refer to that number in future correspondence on this consultation.

cited in San Luis & Delta-Mendota Water Authority v. Natural Resources Defense Council No. 11-1271, archived on March 24, 2014

Section 7 allows the Service up to 90 calendar days to conclude formal consultation with your agency and an additional 45 calendar days to prepare our biological opinion (unless we mutually agree to an extension). Therefore, we expect to provide you with our biological opinion no later than [date = 135 calendar days after receipt of initiation request].

As a reminder, the Endangered Species Act requires that after initiation of formal consultation, the Federal action agency may not make any irreversible or irretrievable commitment of resources that limits future options. This practice insures agency actions do not preclude the formulation or implementation of reasonable and prudent alternatives that avoid jeopardizing the continued existence of endangered or threatened species or destroying or modifying their critical habitats.

If you have any questions or concerns about this consultation or the consultation process in general, please feel free to contact me or _____(name)_____ of this office at _____(phone)___.

Sincerely yours,

Field Supervisor

Exhibit 4-2. Example of a letter sent when an incomplete formal consultation request has been received.

(date)

Dear _____ :

This letter acknowledges the U.S. Fish and Wildlife Service's [or National Marine Fisheries Service's] (Service) [date of receipt of letter initiating consultation] receipt of your [date of agency's initiating letter] letter requesting initiation of formal section 7 consultation under the Endangered Species Act. The consultation concerns the possible effects of your proposed [name and location of the action] on [name of listed species and/or critical habitats affected].

The Service has not received all of the information necessary to initiate formal consultation on [name of the project] as outlined in the regulations governing interagency consultations (50 CFR §402.14). To complete the initiation package, we will require the following information:

1. [Outline the additional information needs. Follow the general sequence and use language in 50 CFR §402.14(c) to identify each piece of missing information.]

2. etc.

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No. 11-15871 archived on March 24, 2014

The formal consultation process for the project will not begin until we receive all of the information, or a statement explaining why that information cannot be made available. We will notify you when we receive this additional information; our notification letter will also outline the dates within which formal consultation should be complete and the biological opinion delivered on the proposed action.

If you have any questions or concerns about this consultation or the consultation process in general, please feel free to call me at _____(phone)_____.

Sincerely yours,

Field Supervisor

Exhibit 4-3. Example of a request for extension of time.

United States Department of the Interior

FISH AND WILDLIFE SERVICE
3100 University Blvd. South
Suite 120
Jacksonville, Florida 32216

October 30, 1992

FWS Log No: 4-1-92441C
Application No: 199201162(LP-CRFO)
Dated: August 6, 1992
Applicant:
County: Citrus

Dear _____ :

San Luis & Delta-Mendota Water Authority v. Natural Resources Defense Council
No. 11-1371, archived on March 24, 2014
cited in Ten

On August 4, 1992, the Fish and Wildlife Service entered into formal Section 7 consultation on the above referenced public notice. The 90-day consultation period expires November 4, 1992. Because of the difficulties we have encountered in acquiring additional information from the applicant, we request a 60-day extension of the consultation period in accordance with 50 CFR §402.14(e). The Biological Opinion will be issued before January 3, 1993.

We have been awaiting necessary information (i.e. plat maps) showing the amount of shoreline owned or controlled by the applicant and information on the number and sizes of existing docks. We requested shoreline information from them in writing on August 13, 1992, and on September 1, 1992, we requested maps showing both shoreline and dock information. We asked for this information again in a telephone conversation with their agent on October 14, 1992. Maps have still not been provided, however, the applicant's wife provided us with a verbal description of the map and the existing docks in a telephone conversation on October 29, 1992. Additional time is needed to review this information and prepare the biological opinion.

By copy of this letter, we are notifying the applicant of our request of an extension. We look forward to your response. If you have any questions or concerns about this consultation or the consultation process in general, please feel free to call me at ____(phone)____.

Sincerely,

Field Supervisor

(B) Coordination with other environmental reviews

Formal consultation and the Services' preparation of a biological opinion often involve coordination with the preparation of documents mandated by other environmental statutes and regulations, including the Fish and Wildlife Coordination Act (FWCA) and the National Environmental Policy Act (NEPA). Although other environmental reviews may be processed concurrently with a section 7 consultation package, they should be separate entities. The contents of the biological opinion and incidental take statement, including the discussion of effects to listed or proposed species and/or critical habitats, and appropriate measures to avoid or minimize those effects, may be addressed in the Service's comments and recommendations under the FWCA, section 404(m) of the Clean Water Act, NEPA, and other authorities. The section 7 consultation package may be prepared as a stand-alone document under separate signature, or one cover transmittal may be used as long as the consultation package is identified as a separate entity.

The Services should assist the action agency or applicant in integrating the formal consultation process into their overall environmental compliance. A major concern of action agencies is often the timing of the consultation process in relation to their other environmental reviews. For example, since the time required to conduct formal section 7 consultation may be longer than the time required to complete preparation of NEPA compliance documents, the action agency should be encouraged to initiate informal consultation prior to NEPA public scoping. Biological assessments may be completed prior to the release of the Draft Environmental Impact Statement (DEIS) and formal consultation, if required, should be initiated prior to or at the time of release of the DEIS. Early inclusion of section 7 in the NEPA process would allow action agencies to share project information earlier and would improve interagency coordination and efficiency. At the time the Final EIS is issued, section 7 consultation should be completed. The Record of Decision should address the results of section 7 consultation.

cited in San Luis & Delta-Mendota Water Authority v. Natural Resources Defense Council
No. 11-1271, archived on March 24, 2014

4.5 COMPONENTS OF A FORMAL CONSULTATION

The Services' formal consultation package includes at a minimum a biological opinion and an incidental take statement. The package also may include a conference opinion or notice of a need to confer if proposed species or proposed critical habitats are involved. Conservation recommendations for agency implementation of section 7(a)(1) responsibilities under the Act may be included if relevant to the action under consultation (Figure 4-2).

Sample language for various types of formal consultation packages can be found in Appendix B.

Following the address and salutation, the biological opinion begins with a standardized introduction and a history of the consultation.

Introductory Paragraph:

> **This document transmits the (Fish and Wildlife Service's/National Marine Fisheries Service's) (Service) biological opinion based on our review of the proposed (name or designation for the action) located in (County, State, and Marine Area as appropriate), and its effects on (species) in accordance with section 7 of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.). Your (date) request for formal consultation was received on (date).**
>
> **This biological opinion is based on information provided in the (date) biological assessment (or other title), the (date) draft environmental assessment (or environmental impact statement), the (date) project proposal, telephone conversations of (dates) with (names), field investigations, and other sources of information. A complete administrative record of this consultation is on file at (this office/elsewhere).**

Consultation history

The history of the consultation request includes any informal consultation, prior formal consultations on the action, documentation of the date consultation was initiated, a chronology of subsequent requests for additional data, extensions, and other applicable past or current actions. Conclusions reached in earlier informal and formal consultations on the proposed action also may be relevant. If so, such conclusions should be documented in the biological opinion.

cited in San Luis & Delta-Mendota Water Authority v. Natural Resources Defense Council No. 11-15871 archived on March 24, 2014

Figure 4-2. Outline of a formal consultation package.

[Handbook discussion in brackets]

Address
Salutation
Introductory paragraph [page 4-12]
Consultation history [page 4-12]

BIOLOGICAL OPINION

I. Description of proposed action [page 4-15]

II. Status of the species/critical habitat [page 4-19]
- A. Species/critical habitat description
- B. Life history
- C. Population dynamics
- D. Status and distribution
- E. Analysis of the species/critical habitat likely to be affected

III. Environmental baseline [page 4-22]
- A. Status of the species within the action area
- B. Factors affecting species environment within the action area

cited in San Luis & Delta-Mendota Water Authority v. Natural Resources Defense Council
No. 1:12-cv-00671 archived on March 24, 2014

IV. Effects of the action [page 4-23]
- A. Factors to be considered
- B. Analyses for effects of the action
- C. Species' response to a proposed action

V. Cumulative effects [page 4-30]

VI. Conclusion [page 4-31]

VIII.Reasonable and prudent alternatives (as appropriate) [page 4-41]

INCIDENTAL TAKE STATEMENT [page 4-43]

Introductory paragraph [page 4-46]
Amount or extent of take anticipated [page 4-47]
Effect of the take [page 4-49]
Reasonable and prudent measures (as appropriate) [page 4-50]
Terms and conditions [page 4-51]
Coordination of incidental take statements with other laws, regulations, and policies [page 4-53]

CONFERENCE REPORT/CONFERENCE NOTICE (as appropriate) [page 4-58]

CONSERVATION RECOMMENDATIONS (as appropriate) [page 4-59]

REINITIATION - CLOSING STATEMENT [page 4-60]

LITERATURE CITED [page 4-60]

cited in San Luis & Delta-Mendota Water Authority v. Natural Resources Defense Council
No. 11-15871 archived on March 24, 2014

(A) Biological opinion

> ***"... the Secretary shall provide to the Federal agency and the applicant, if any, a written statement setting forth the Secretary's opinion, and a summary of the information on which the opinion is based, detailing how the agency action affects the species or its critical habitat. If jeopardy or adverse modification is found, the Secretary shall suggest those reasonable and prudent alternatives which he believes would not violate subsection (a)(2) and can be taken by the Federal agency or applicant in implementing the agency action.***
>
> **Section 7(b)(3)(A) of the Endangered Species Act**

A formal biological opinion consists of a description of the proposed action, status of the species/critical habitat, the environmental baseline, effects of the action, cumulative effects, the Services' conclusion of **jeopardy**/**no jeopardy** and/or **adverse modification/no adverse modification,** and reasonable and prudent alternatives, as appropriate.

Description of the proposed action

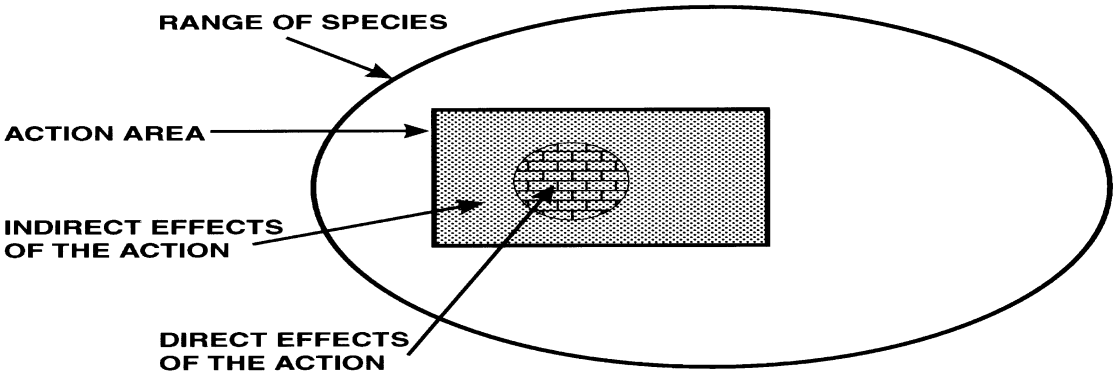
San Luis & Delta-Mendota Water Authority v. Natural Resources Defense Council
No. 11-1271, archived on March 24, 2014
cited in

Provide descriptions of the proposed action and the action area (area including all direct and indirect effects). The description of the proposed action does not have to be comprehensive if details can be referenced from NEPA documents or other descriptions provided. However, some small actions may not have complete or formal descriptions of the proposed action, or the project's components may be scattered throughout a biological evaluation (or similar document), draft NEPA documents, draft plans for different portions of the action, miscellaneous policy and guidance documents, letters, telephone records, meeting notes, and other documents. In such cases, a comprehensive project description in the biological opinion is vital to determining the scope of the proposed action. The draft project description may be sent to the action agency for review to eliminate any inaccuracies regarding the scope of the action. This section should summarize enough information for the reader to understand and evaluate the action under consideration in the biological opinion.

If the Services determine that the action area differs from that described by the agency or applicant, the Services should discuss their rationale for the change with the agency or applicant. Occasionally, an action agency or an applicant disagrees with the Services' delineation of the action area. This generally occurs when impacts to the species/habitat result from indirect or interrelated/interdependent effects. Reaching agreement on the description of the action area is desirable, but ultimately the Services are responsible for this biological determination (Figures 4-3, 4-4 and 4-5). Subsequent analyses of the environmental baseline, effects of the action, and levels of incidental take are based upon the action area as determined by the Services. If appropriate, including a transition sentence clarifies why the action area was described in a manner differing from that provided by the action agency: "The Services have described the

action area to include.... for reasons that will be explained and discussed in the 'Effects of the proposed action' section of this consultation." Maps and other graphics also may be appropriate.

Figure 4-3. Example of an action area within the species' range.



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No. 11-15871 archived on March 24, 2014

Figure 4-4. Example of an action area that encompasses the species' range.

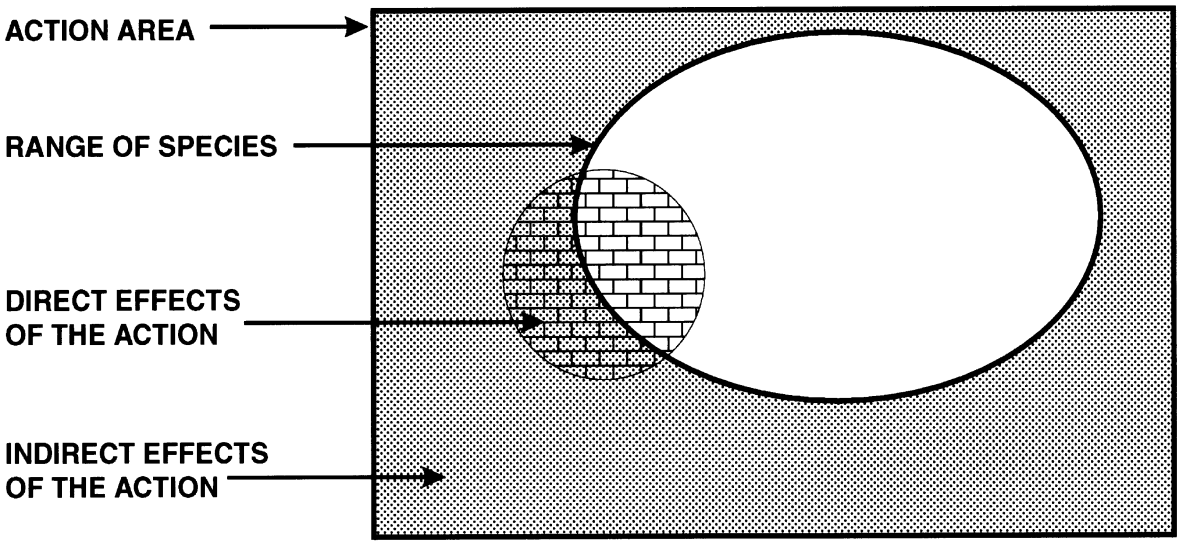
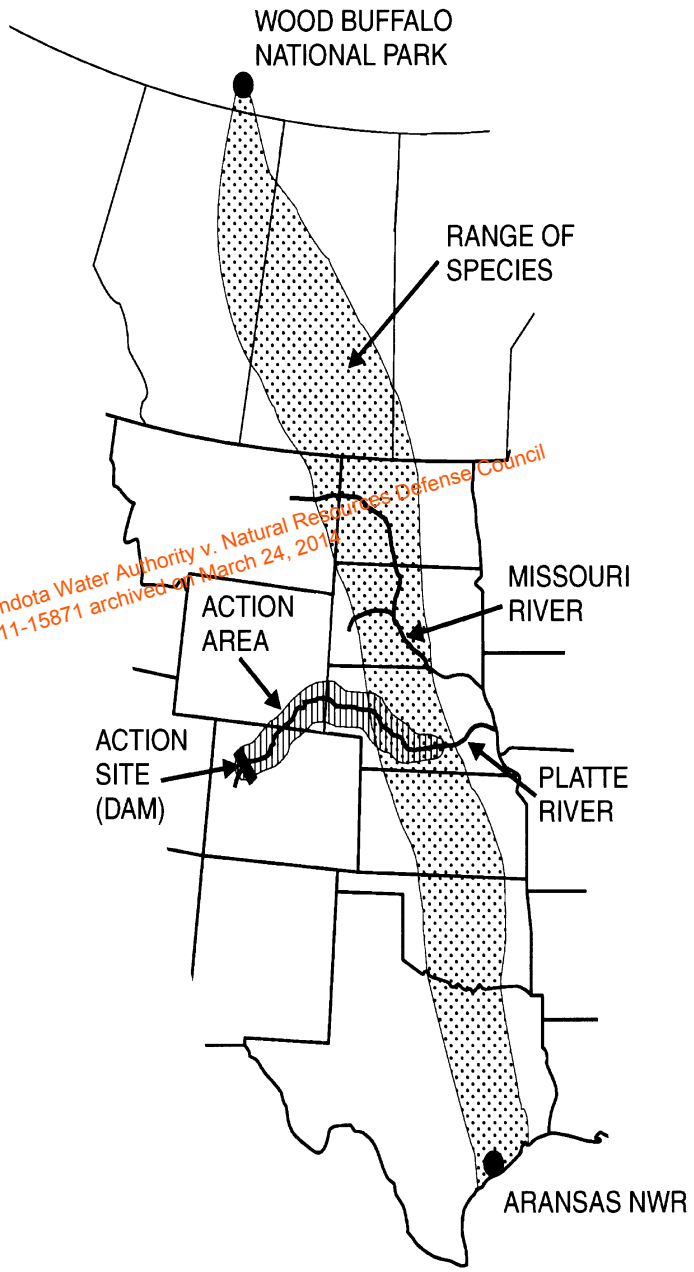


Figure 4-5. Example of an action area involving an effect not at the project site.

A dam on the Platte River in Colorado (project site) also may affect the water regime for whooping crane critical habitat (action area) 150 miles downstream in Nebraska.



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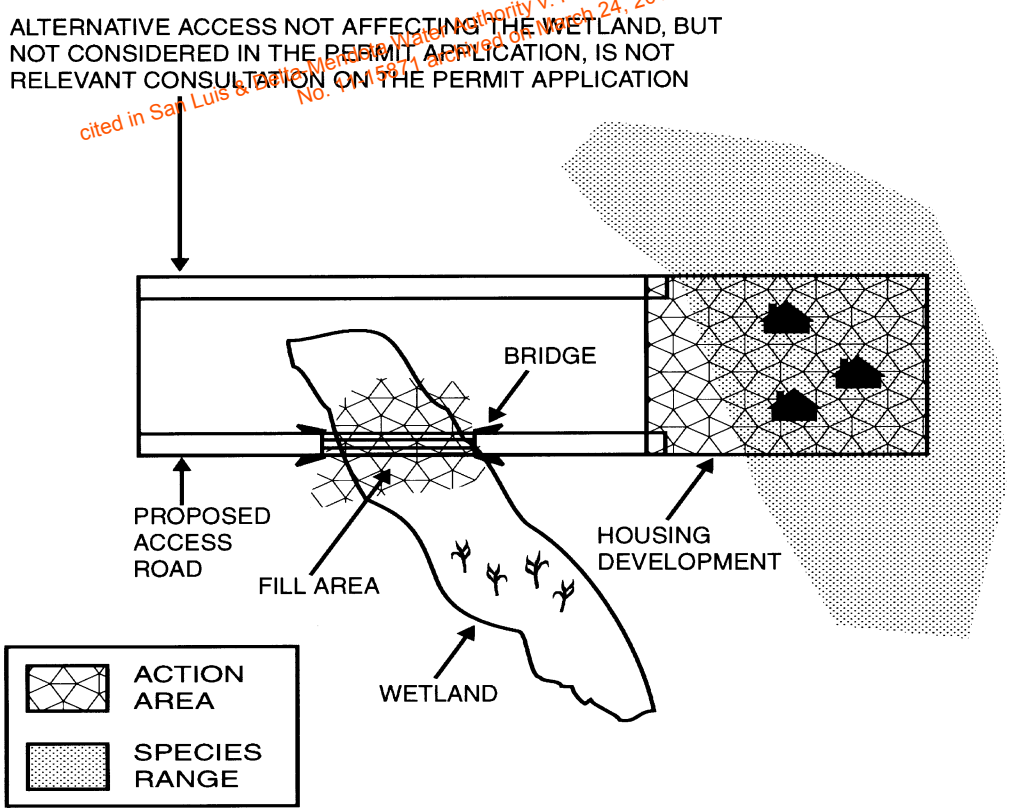
No. 11-15871 archived on March 24, 2015

Description of the proposed action (cont'd)

Determining the action area relates only to the action proposed by the action agency. Even if the applicant has an alternative not requiring Federal permits or funding, this does not enter into the Services' analyses. Such alternatives can be discussed in the reasonable and prudent alternatives or conservation recommendations if the alternative is within the agency's jurisdiction. The action area should be determined based on consideration of all direct and indirect effects of the proposed agency action [50 CFR 402.02 and 402.14(h)(2)]. For example (Figure 4-6), if the proposed action is a wetland fill (requiring a federal permit) to accommodate access to a proposed development (the actual area of impact to the species), then the development is included in the action area. Whether or not the applicant can build a road that does not impact the wetland, the analysis of effects of the action still encompasses the proposed development. If the applicant is seriously considering the alternative with no Federal nexus, the applicant should be advised of the need for acquiring a section 10(a)(1)(B) permit before proceeding with development for actions that will result in a taking.

Figure 4-6. Determining the action area.

cited in San Luis & Delta-Mendota Water Authority v. Natural Resources Defense Council No. 1:1-1571 archived on March 24, 2014



Describing the proposed action also includes any conservation measures proposed as part of the action. When used in the context of the Act, "conservation measures" represent actions pledged in the project description that the action agency or the applicant will implement to further the recovery of the species under review. Such measures may be tasks recommended in the species' recovery plan, should be closely related to the action, and should be achievable within the authority of the action agency or applicant. For example, degraded habitat acquired by the applicant adjacent to the area to be developed may be improved as a conservation measure prior to project completion so that individuals depending on the habitat to be destroyed by development can be relocated or allowed to relocate on the improved site.

In this example, the activity carries out a recognized conservation need for the species. The beneficial effects of the conservation measure are taken into consideration for both **jeopardy** and incidental take analyses. However, remember that the objective of the incidental take analysis under section 7 is minimization, not mitigation. If the conservation measure only protects off-site habitat and does not minimize impacts to affected individuals in the action area, the beneficial effects of the conservation measure are irrelevant to the incidental take analysis. Discussion of the limits for minimization under section 7, and distinction from mitigation allowances under section 10, can be found in Section 2.1(C) of this handbook.

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Since conservation measures are part of the proposed action, their implementation is required under the terms of the consultation. However, conservation recommendations (which may be provided at the end of the consultation package) are discretionary suggestions made by the Services for consideration by the agency or applicant.

Status of the species/critical habitat

This section presents the biological or ecological information relevant to formulating the biological opinion. Appropriate information on the species' life history, its habitat and distribution, and other data on factors necessary to its survival, is included to provide background for analyses in later sections. Note that when designated critical habitat is affected a companion analysis is done for that habitat. This analysis documents the effects of all past human and natural activities or events that have led to the current status of the species. This information is presented in listing documents, and refined in recovery plans.

When the Services' review focuses on the effects of the action on a discrete recovery unit or designated critical habitat unit, this section of the biological opinion describes the status of that unit and its significance to the species as listed or to the designated critical habitat. For example, if the opinion focuses on the Chesapeake Bay recovery unit of the bald eagle, the status of that recovery unit is discussed including the recovery unit's role in both the survival and recovery of the species as listed.

The following types of information should be considered for inclusion in the biological opinion. All information may not be available for all species. However, Services biologists should use the best available scientific or commercial data. Pertinent information can be gathered from listing rules, including critical habitat designations, recovery plans, and published and unpublished studies done on the species. Once this section is developed for a given species, it can be used in successive biological opinions. Modification is necessary only when new information is developed.

a. Species/critical habitat description

This section should briefly describe the species and/or critical habitat, discussing the current legal status of the species, including listing history, and current known range of the listed species found in the action area. For critical habitat, the discussion should include the extent of designated critical habitat, the primary constituent elements identified in the final rule, and any activities which have been identified as having the potential for altering the primary constituent elements.

b. Life history

cited in San Luis & Delta-Mendota Water Authority v. Natural Resources Defense Council
No. 1:14-cv-871 archived on March 27, 2014

A large number of life history variables are relevant to **jeopardy** analyses. These variables help determine a species' population size, age distribution, sensitivity to a proposed action's effects, ability to recover from adverse effects, and ability to recolonize areas from which it has been extirpated. Relevant life history variables include, but are not limited to: longevity; age distribution; age to maturity; reproductive strategy (for example, the number of times mature individuals reproduce in a lifetime, or whether mature individuals reproduce sexually or asexually); recruitment; seasonal distribution patterns; biogeography; food habits; niche; life cycle; hosts and symbionts; predators and competitors; and disease factors.

c. Population dynamics

The size of a population and its natural variance over time are important characteristics affecting the species' response to disturbance factors. For many species, there is only cursory natural history or status survey information available. However, detailed demographic analyses have recently been undertaken for some species. The level of discussion in this section will depend upon the detail and quality of the information available.

<u>Population size</u>: This species characteristic is often emphasized in consultations. Reduction in population size may jeopardize the continued existence of threatened or endangered species because the longer a species remains at low population levels, the greater the probability of extinction from chance events, inbreeding depression, or additional environmental disturbance. However, although population size has a clear relationship to a species' extinction probability, it can be less important than population variability and should be used carefully. How long a

species will persist before extinction depends on more than population size. Large populations may not protect a species from extinction in the face of extreme environmental disturbance.

Population variability: Fluctuations in a species' population over time can affect significantly the probability of its extinction. Population variability is affected by several characteristics of a species' life history: unstable age distributions and reproductive rates; widely variable mortalities resulting from unstable food resources or predation; population density; sex ratios; recolonization rates; and genetic viability. As a population fluctuates, one or more factors can lead to a chance extinction, e.g., irreversibly lowering population size to a point where it can no longer recover. Consequently, an action increasing a species' population variability may affect the continued existence of the species more significantly than a reduction in population size.

Population stability: Population stability is the ability of a species' population to resist change or dramatic fluctuations over time. It directly affects a species' sensitivity to the adverse effects of a proposed action. Even-age distribution, high reproductive rates, or long life spans with multiple reproductive periods can stabilize a population.

d. Status and distribution

cited in San Luis & Delta-Mendota Water Authority v. Natural Resources Defense Council No. 11-1271, archived on March 27, 2014

Information on the status and distribution of listed species and designated critical habitat helps establish the environmental basis for a consultation. The Federal Register Notice with the final rule listing a species or designating critical habitat is a good starting point for gathering this type of information. The following factors should provide a reasonable environmental setting within which to consider the action and cumulative effects for the consultation.

Reasons for listing: The reasons for listing a species or designating critical habitat are important considerations. For example, a species listed because of commercial exploitation may be less sensitive to habitat loss than a species listed because of habitat loss.

Rangewide trend: Many listed species are declining throughout their range, therefore the overall population trend of a species has implications for new proposals that could result in additional effects on the species. The trends of the remaining populations of listed species form the basis for evaluating the effects of a proposed action on that species.

New threats: Often, factors not considered when a species was first listed can threaten its continued existence, and must be considered when establishing the environmental baseline. For example, the zebra mussel (*Dreissena polymorpha*), an exotic species threatening native mussel fauna throughout its range, wasn't considered when most native mussels were listed.

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e. Analysis of the species/critical habitat likely to be affected

This section summarizes the previous discussion in Status of the species/ critical habitat and identifies those species or designated critical habitat likely to be adversely affected by the proposed action, which will be considered further in the remaining sections of the biological opinion. If the action agency requests consultation on a beneficial action, that will be noted here. Other listed species/designated critical habitat present in the project area are also listed here along with the reasons they are not likely to be adversely affected. Since the Services concur with the action agency's determination of "is not likely to adversely affect," a statement that those species will not be considered further in the consultation should be included.

<u>Environmental baseline</u>

This section is an analysis of the effects of past and ongoing human and natural factors leading to the current status of the species, its habitat (including designated critical habitat), and ecosystem, within the action area. The environmental baseline is a "snapshot" of a species' health at a specified point in time. It does not include the effects of the action under review in the consultation.

Cited in San Luis & Delta-Mendota Water Authority v. Natural Resources Defense Council No. 1:12-cv-00671 archived on March 24, 2014

a. Status of the species within the action area

Unless the species' range is wholly contained within the action area, this analysis is a subset of the preceding rangewide status discussion. The purpose is to analyze the effects on the species and/or critical habitat at the action level. For example, the following issues are considered:

- the percent or amount of the species range or designated critical habitat in the action area;
- whether the effect is quantitative, qualitative, or both;
- the distribution of the affected and unaffected habitat; and
- if critical habitat will be impacted, the effect on the constituent elements.

b. Factors affecting species environment within the action area

This analysis describes factors affecting the environment of the species or critical habitat <u>in the action area</u> (Figure 4-3). The baseline includes State, tribal, local, and private actions already affecting the species or that will occur contemporaneously with the consultation in progress. Unrelated Federal actions affecting the same species or critical habitat that have completed formal or informal consultation are also part of the environmental baseline, as are Federal and other actions within the action area that may benefit listed species or critical habitat.

An agency action can be removed from the environmental baseline analysis under any of the following conditions:

- an action agency notifies the Services in writing that a previously proposed action will not be implemented;
- a biological opinion for the proposed action (not an ongoing action) is no longer valid because reinitiation of consultation is required and the action agency has been so informed in writing by the Services, or has requested that the Services reinitiate consultation; or
- alternatives have been implemented that remove all adverse effects.

Effects of the action

This section includes an analysis of the direct and indirect effects of the proposed action on the species and/or critical habitat and its interrelated and interdependent activities.

a. Factors to be considered

cited in San Luis & Delta-Mendota Water Authority v. Natural Resources Defense Council No. 11-15871 archived on March 24, 2014

Proximity of the action: to the species, management units, or designated critical habitat units.

Distribution: geographic areas where the disturbance occurs (e.g., may be several small or one large area).

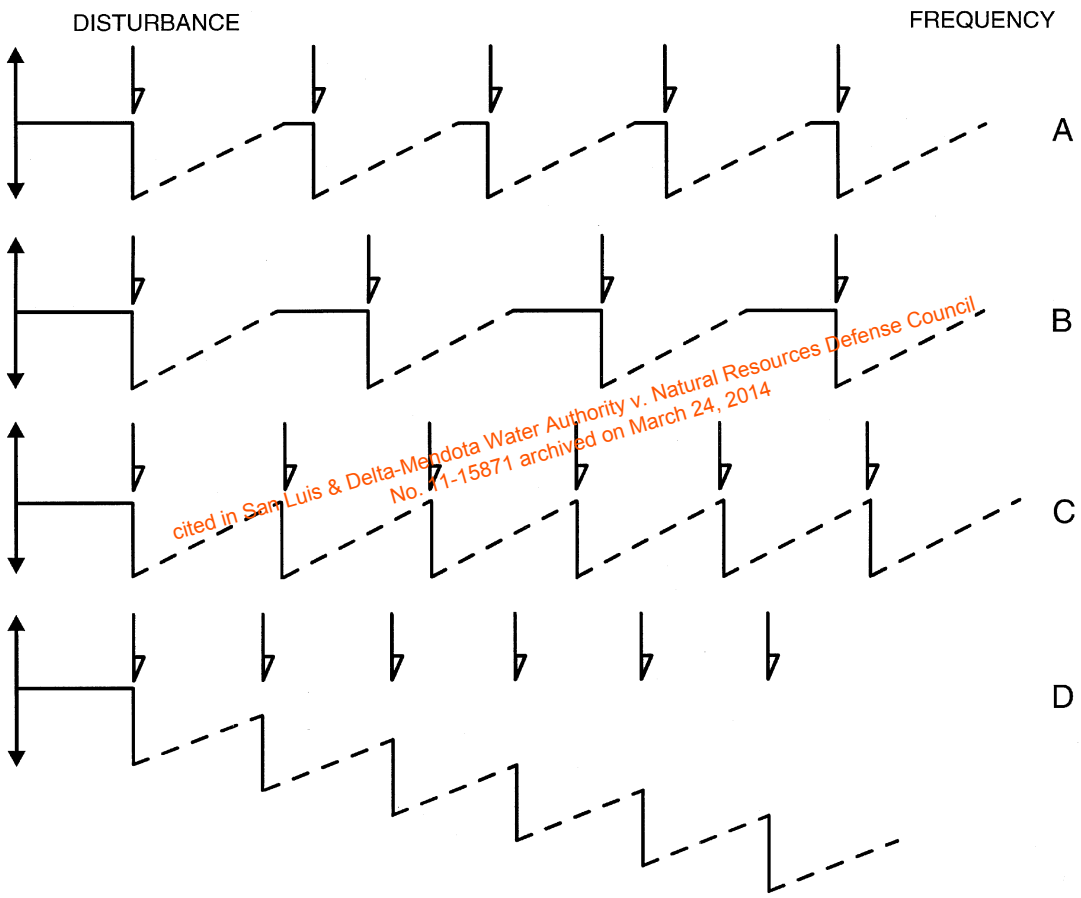
Timing: relationship to sensitive periods of a species' lifecycle.

Nature of the effect: effects of the action on elements of a species' lifecycle, population size or variability, or distribution; or on the primary constituent elements of the critical habitat, including direct and indirect effects.

Duration: The effects of a proposed action on listed species or critical habitat depend largely on the duration of its effects. Three potential categories of effects are: (1) a short-term event whose effects are relaxed almost immediately (pulse effect), (2) a sustained, long-term, or chronic event whose effects are not relaxed (press effect), or (3) a permanent event that sets a new threshold for some feature of a species' environment (threshold effect). For many species, a proposed action producing a single, short-term effect is less likely to jeopardize the continued existence of a species than a long-term chronic event or the permanent alteration of a species' habitat.

Disturbance frequency: the mean number of events per unit of time affects a species differently depending on its recovery rate. If the disturbance frequency is less than the species' recovery rate, the species might persist in the face of the disturbance (Figures 4-7a-b). If the disturbance

frequency equals the species' recovery rate, the species becomes more sensitive to the effects of other disturbances (Figure 4-7c). If the disturbance frequency is greater than a species' recovery rate, the species will be unable to recover between disturbances (Figure 4-7d). Disturbance frequency is an important consideration when evaluating the accumulating effects of proposed actions on listed species and/or designated critical habitat, particularly when it is combined with information on a species' recovery rate.



cited in San Luis & Delta-Mendota Water Authority v. Natural Resources Defense Council, No. 11-15871 archived on March 24, 2014

Figure 4-7. Effects of the disturbance. (figures modified from Trudghill 1988)

Disturbance intensity: the effect of the disturbance on a population or species as a function of the population or species' state after the disturbance. For example, a disturbance reducing the size of a population or critical habitat unit by 40 percent is more intense than a disturbance reducing population or unit size by 10 percent.

Disturbance severity: the effect of a disturbance on a population or species as a function of recovery rate. The longer the recovery rate, the more severe the disturbance. For example, a disturbance from which a species or habitat takes 10 years to recover is more severe than a disturbance requiring 2 years for recovery. A severe disturbance makes a population or species more susceptible to the effects of multiple actions.

b. Analyses for effects of the action

Sufficient description of the proposed action should be included so that the subsequent analysis of effects and the scope of the opinion are clear. If the analyses for this section determine that some individuals of a listed animal might be "taken" as a direct or indirect result of the proposed action, that information is included in the incidental take statement.

cited in San Luis & Delta-Mendota Water Authority v. Natural Resources Defense Council No. 1:1-cv-00671 archived on March 24, 2014

Beneficial effects: are those effects of an action that are wholly positive, without any adverse effects, on a listed species or designated critical habitat. Determination that an action will have beneficial effects is a "may affect" situation (see section 3.5). However, since there are no adverse effects, formal consultation is not required. Biological opinions may discuss beneficial effects if the applicant requests it, or if a biological assessment considers numerous species, some with adverse effects, and one or more with beneficial effects.

> Example: The National Park Service proposes to modify an existing rock climbing management plan that allows climbing in historic peregrine falcon nesting areas. The new plan restricts climbing activities to areas outside of a zone 1/4 mile wide on either side of active peregrine falcon aeries during the breeding season. This protects the birds from human disturbance and eliminates take that could occur if an adult was flushed from an aerie with eggs or young needing incubation or brooding to survive. Therefore, the effects are wholly beneficial.

Direct effects: the direct or immediate effects of the project on the species or its habitat, e.g., driving an off road vehicle through the nesting habitat of the piping plover may destroy its ground nest; building a housing unit may destroy the habitat of an endangered mouse. Direct effects result from the agency action including the effects of interrelated actions and interdependent actions (see definitions below for clarification). Future Federal actions that are not a direct effect of the action under consideration (and not included in the environmental baseline or treated as indirect effects) are not considered in this biological opinion.

Interrelated and interdependent actions: Effects of the action under consultation are analyzed together with the effects of other activities that are interrelated to, or interdependent with, that action. An interrelated activity is an activity that is part of the proposed action and depends on the proposed action for its justification. An interdependent activity is an activity that has no independent utility apart from the action under consultation. (Note: the regulations refer to the action under consultation as the "larger action" [50 CFR § 402.02]). In fact, the use of the term "larger" has proven to be confusing when applied in the case of a modification to an existing project. Instead of keeping the inquiry on whether other activities are interrelated to or interdependent with the modification, it has unintentionally and inappropriately shifted the focus to an inquiry on whether the modification itself is interrelated to or interdependent with the "larger" action or project. To better understand how the interdependent or interrelated analysis should work, see the detailed examples below.

As a practical matter, the analysis of whether other activities are interrelated to, or interdependent with, the proposed action under consultation should be conducted by applying a "but for" test. The biologist should ask whether another activity in question would occur "but for" the proposed action under consultation. If the answer is "no," that 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 the answer is "yes," that the activity in question would occur regardless of the proposed action under consultation, then the activity is not interdependent or interrelated and would not be analyzed with the effects of the action under consultation. There will be times when the answer to this question will not be apparent on its face. The biologist should ask follow-up questions to the relevant parties to determine the relationship of the activity to the proposed action under consultation. It is important to remember that interrelated or interdependent activities are measured against the **proposed action**. That is, the relevant inquiry is whether the activity in question should be analyzed with the effects of the action under consultation because it is interrelated to, or interdependent with, the proposed action. Be careful not to reverse the analysis by analyzing the relationship of the proposed action against the other activity. For example, as cited below, if the proposed action is the addition of a second turbine to an existing dam, the question is whether the dam (the other activity) is interrelated to or interdependent with the proposed action (the addition of the turbine), not the reverse.

cited in San Luis & Delta-Mendota Water Authority, Natural Resources Defense Council No. 1:1-cv-00671, archived on March 27, 2014

> Example: The Corps of Engineers requests consultation for construction of a dam which requires a section 404 permit. The dam will provide water to private irrigation canals that will come on line once the dam is completed. The private irrigation canals are interrelated to the proposed dam and must be considered in a biological opinion for the larger water development project since they would not be in existence "but for" the presence of the proposed dam under consultation. Similarly, a power turbine to be constructed concurrently with the dam cannot function and has no independent utility "but for" the dam and is, therefore, interrelated with the project. Thus the effects of this turbine on fish passage and water quality are to be considered in the biological opinion on the proposed dam.

Ten years after construction of the dam, a federal permit is needed to add a second turbine to the dam to increase power generation. The addition of the turbine, as the proposed action under consultation, is now the "larger action" against which the "but for" test for interrelated or interdependent effects would be applied. The pre-existing dam has independent utility without the new turbine and therefore is not interrelated to, or interdependent with, the proposed action. Ongoing effects of the existing dam are already included in the Environmental Baseline and would not be considered an effect of the proposed action under consultation. Activities which would be interdependent and interrelated to the proposed turbine could include construction of new power lines or conversion of natural habitat if the additional power capacity allowed for the development of a manufacturing facility that was dependent upon the new power grid.

Later, a new federal safety law requires the dam operator to construct a fuse plug on an existing spillway which improves response to emergency flood conditions. Construction of the fuse plug is now the proposed "larger action." Again, the existing dam is not interdependent or interrelated to the proposed fuse plug because it does not depend upon the proposed action for its existence. That is, the test is not whether the fuse plug in some way assists or facilitates in the continued operation of the pre-existing project, but instead whether the water project could not exist "but for" the fuse plug. Because the answer is that the project would exist independent of the fuse plug, the operation of that project is not interrelated or interdependent. Accordingly, the biologist would not consider the effects of the dam to be effects of the "larger" action under consultation (the proposed construction of the fuse plug). However, if the fuse plug would allow a greater flow of water through the spillway, thereby requiring the operator to increase the depth of the spillway channel and armor it with concrete, such activities would be interrelated to the proposed action.

Cited in San Luis & Delta-Mendota Water Authority v. Natural Resources Defense Council No. 1:1-15871, archived on March 24, 2014

Example: Another example would be a proposed agency action to enlarge the water supply storage capacity of an existing flood control reservoir. An existing water supply system into which the stored water will be released does not depend on the proposed action, and hence is not interrelated.

When one or more Federal actions are determined by the Services to be interdependent or interrelated to the proposed action, or are indirect effects of the proposed action, they are combined in the consultation and a lead agency is determined for the overall consultation.

<u>Indirect effects</u>: are caused by or result from the proposed action, are later in time, and are reasonably certain to occur, e.g., predators may follow ORV tracks into piping plover nesting habitat and destroy nests; the people moving into the housing unit bring cats that prey on the mice left in the adjacent habitat. Indirect effects may occur outside of the area directly affected by the action.

Indirect effects may include other Federal actions that have not undergone section 7 consultation but will result from the action under consideration. In order to treat these actions as indirect effects in the biological opinion, they must be reasonably certain to occur, as evidenced by appropriations, work plans, permits issued, or budgeting; they follow a pattern of activity undertaken by the agency in the action area; or they are a logical extension of the proposed action.

Non-Federal activities with indirect effects can also be predicted, particularly for ongoing projects that have a past pattern of use that is anticipated to continue.

> Example: A very complex example of indirect effects arose in determining effects of renewing water service contracts from a large reclamation project (Friant Unit of the Central Valley Project) in the San Joaquin Basin of California. Upon checking with other Federal and State agencies, the FWS determined that the distribution of water for agricultural use on the higher east side of the Valley provided a hydrologic head maintaining the groundwater table on the west side of the Valley at a level making it economical to pump. As a result, occupied habitats for several species on the west side of the Valley were being destroyed because the pumped water could be used to convert this land to agriculture. The California Department of Water Resources provided trend data indicating a continuing conversion of habitat of 10,000 to 30,000 acres per year. These data were used to assess future non-Federal effects of the project.

cited in San Luis & Delta-Mendota Water Authority v. Natural Resources Defense Council
No. 11-15871 archived on March 24, 2014

Several court cases provide examples of indirect effects of a proposed action. In National Wildlife Federation v. Coleman, 529 F.2d 359 (5th Cir.), cert. denied, 429 U.S. 979 (1976), the court ruled that indirect effects of private development resulting from proposed construction of highway interchanges had to be considered as impacts of a proposed Federal highway project, even though the private development had not been planned at the time the highway project was proposed. In another case, Riverside Irrigation District v. Andrews, 758 F.2d 508 (10th Cir. 1985), the court ruled that the Corps of Engineers must consider the effects of consumptive water uses made possible by the proposed dam on critical habitat for whooping cranes 150 miles away, in addition to the local impacts of placing fill for the dam.

Determining the effect of ongoing water projects: Under the Federal Power Act, as amended by the Electric Consumers Protection Act of 1986, the Federal Energy Regulatory Commission (FERC) issues new licenses for existing hydropower projects as the original licenses expire. FERC has determined that these new licenses represent a new commitment of resources. Therefore, a section 7 analysis of the project's effects on listed species is done in the same way as new projects. When analyzing these water projects, as well as water contract renewals for Bureau of Reclamation (Bureau) programs and ongoing discretionary operations of Bureau and Corps of Engineers water facilities, use the same approach as for other types of section 7 analyses.

- The total effects of all past activities, including effects of the past operation of the project, current non-Federal activities, and Federal projects with completed section 7 consultations, form the environmental baseline;

- To this baseline, future direct and indirect impacts of the operation over the new license or contract period, including effects of any interrelated and interdependent activities, and any reasonably certain future non-Federal activities (cumulative effects), are added to determine the total effect on listed species and their habitat.

Annual operating permits issued prior to issuance of a new hydropower license are subject to section 7 consultation if the Federal agency has discretion to determine the terms of the annual permits.

c. Species' response to a proposed action

[Note: For critical habitat analyses, many of the following considerations can be addressed in terms of the effect on the functional suitability of the habitat to support the species.]

San Luis & Delta-Mendota Water Authority v. Natural Resources Defense Council
No. 1:12-cv-00671 archived on March 27, 2014
cited in

Numbers of individuals/populations in the action area affected: Many **jeopardy** analyses emphasize the effects of a proposed action on the size of a species' populations because small populations are more threatened by extinction due to demographic accidents than large populations. However, the length of time a species exists before extinction depends on more than population size. Large population size may not protect a species in the face of extreme disturbance. A species' response to disturbance will depend on the number of individuals or amount of habitat affected, although the age, sex, breeding status, and distribution of affected individuals, as well as the genetic variability within the remaining population(s), are equally important because they determine a population's ability to recover from the loss of individuals.

Sensitivity to change: This factor relates to the degree to which a population or species is prone to change when disturbed.

Resilience: This factor relates to the characteristics of populations, species, or critical habitat units allowing them to recover from different magnitudes of disturbance. For example, the greater the reproductive rate, the more resilient the species may be to population losses. Moreover, habitat specificity and other factors also contribute to a species' resiliency. Critical habitat also has resilience: grasslands, for example, can be more resilient to the adverse effects of fire than a forest. In a biological opinion, the biologist should determine the type and severity of the disturbance and determine how resilient the species or its habitat is to that particular type of disturbance.

Recovery rate: This factor relates to the time required for an individual, population, species, community, or ecosystem to return to equilibrium after exposure to a disturbance. A population,

species, community, or ecosystem that has a fast recovery rate is called stable. It is often difficult to know the recovery rate or resilience of species. In the absence of information, the best biological estimate should be used.

Cumulative effects

Section 7 regulations require the Federal action agency to provide an analysis of cumulative effects, along with other information, when requesting initiation of formal consultation. Additionally, the Services are required to consider cumulative effects in formulating their biological opinions (50 CFR §402.14(g)(3) and (4)). The standardized paragraph to introduce the cumulative effects section is:

> **Cumulative effects include the effects of future State, tribal, local or private actions that are reasonably certain to occur in the action area considered in this biological opinion. Future Federal actions that are unrelated to the proposed action are not considered in this section because they require separate consultation pursuant to section 7 of the Act.**

Natural Resources Defense Council v. Mendota Water Authority, No. 1:05-cv-01207 March 24, 2014
cited in San Luis & Delta-Mendota Water Authority v. Jewell, 747 F.3d 581 (9th Cir. 2014) archive.org

The concept of cumulative effects is frequently misunderstood as it relates to determining likely **jeopardy** or **adverse modification**. Cumulative effects include effects of future State, tribal, local, and private actions, not involving a Federal action, that are reasonably certain to occur within the action area under consideration. Future Federal actions requiring separate consultation (unrelated to the proposed action) are not considered in the cumulative effects section.

The "reasonably certain to occur" clause is a key factor in assessing and applying cumulative effects in biological opinions. First, cumulative effects involve only future non-Federal actions: past and present impacts of non-Federal actions are part of the environmental baseline. Indicators of actions "reasonably certain 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); indications by State, tribal or local agencies or governments that granting authority for the action is imminent; project sponsors' assurance the action will proceed; obligation of venture capital; or initiation of contracts. The more State, tribal or local administrative discretion remaining to be exercised before a proposed non-Federal action can proceed, the less there is a reasonable certainty the project will be authorized. Speculative non-Federal actions that may never be implemented are not factored into the "cumulative effects" analysis. At the same time, "reasonably certain to occur" does not require a guarantee the action will occur. The action agency and the Services should consider the economic, administrative, and legal hurdles remaining before the action proceeds.

The cumulative effects analysis is the last step or factor considered in formulating the biological opinion. Sometimes, cumulative effects can be the deciding factor in determining the likelihood of **jeopardy** or **adverse modification**. However, this is frequently the least documented part of

biological opinions, due to the lack of definitive information on future State, tribal, local, or private actions that are unrelated to the action undergoing consultation.

Gathering information on cumulative effects often requires more effort than merely gathering information on a proposed action. One of the first places to seek cumulative effects information is in documents provided by the action agency such as NEPA analyses for the action. The Services can review the broader NEPA discussion of cumulative effects, and apply the Act's narrower cumulative effects definition. Information on future non-Federal actions can be obtained through observations and inquiries during field reconnaissance in the action area; discussions with State game and fish agencies and other Federal, State, tribal and local agencies, and conservation organizations; and newspapers and other sources of local information (e.g., radio, television, libraries).

When addressing a section 7 action within a larger section 10(a)(1)(B) planning area, non-Federal proposals for development in the Habitat Conservation Plan (HCP) are considered cumulative effects for that planning area until the section 7 consultation for the section 10(a)(1)(B) permit is completed, at which time the effects of those projects become part of the environmental baseline for future consultations.

cited in San Luis & Delta-Mendota Water Authority v. Natural Resources Defense Council
No. 11-15871, archived on March 24, 2014

> Example: Formal consultation was conducted with the Federal Highway Administration (FHWA) on construction of a new highway in Latimer County, Oklahoma. The endangered American burying beetle is known to use forest and forest/edge habitats within the immediate area of the highway, and activities disturbing the soil surface of the beetle's habitat can impact reproduction. Intensive surface mining for coal and natural gas development were occurring in Latimer County and within the action area. Both of these activities would "benefit" from the new highway, but were independent of the highway construction. Coal mining, regulated by the Office of Surface Mining, was not considered a cumulative effect because it requires section 7 consultation. Future natural gas development is a cumulative effect as it is regulated by the State. The frequent occurrence of new drilling sites in the area indicated this activity was "reasonably certain to occur" in the future. Further, several landowners in the action area had recently signed contracts to sell their mineral rights to gas companies.

<u>Conclusion</u>

The conclusion section presents the Services' opinion regarding whether the aggregate effects of the factors analyzed under "environmental baseline," "effects of the action," and "cumulative effects" in the action area - when viewed against the status of the species or critical habitat as listed or designated- are **likely to jeopardize the continued existence of the species** or **result in destruction or adverse modification of critical habitat**.

Note: Conditional **no jeopardy** biological opinions (a conclusion of **no jeopardy** if the action agency undertakes certain mitigative measures) do not comply with section 7 regulations or the intent of the Act. The Services can evaluate only the Federal action proposed, not the action as the Services would like to see that action modified.

The standardized statement for introducing the conclusion section is as follows:

> **After reviewing the current status of (species), the environmental baseline for the action area** [use if different from the range of the species], **the effects of the proposed (action) and the cumulative effects, it is the Service's biological opinion that the (action), as proposed, (is/is not) likely to jeopardize the continued existence of the (species), and (is/is not) likely to destroy or adversely modify designated critical habitat.** [If no critical habitat has been designated for the species or the action will not affect designated critical habitat, use one of the following statements.] **No critical habitat has been designated for this species, therefore, none will be affected.** -OR- **Critical habitat for this species has been designated at (location), however, this action does not affect that area and no destruction or adverse modification of that critical habitat is anticipated.**

cited as San Luis & Delta-Mendota Water Authority v. Natural Resources Defense Council
No. 11-15871 archived on March 27, 2014

The remainder of the Conclusion section should summarize in a clear, concise manner the reasons for the finding(s) in terms of effects for each listed species or designated critical habitat.

This section addresses only two issues: whether the proposed action is likely to (1) **jeopardize the continued existence of** a listed species or (2) **result in the destruction or adverse modification of critical habitat**. The acceptable conclusions for this section of a biological opinion are as follows:

Jeopardy:

> Likely to jeopardize the continued existence of [one or more species]
>
> Not likely to jeopardize the continued existence of [one or more species]

Note: if the consultation is a reinitiation for consideration of effects on a subsequently designated critical habitat, re-evaluate the previous finding of **jeopardy** or **no jeopardy** here before continuing the analysis for **adverse modification** of critical habitat.

Destruction or adverse modification:

> No critical habitat has been designated for this species; therefore, none will be destroyed or adversely modified.

Critical habitat has been designated for this species, but the action is not likely to affect that critical habitat. Therefore, there is no destruction or adverse modification of the critical habitat.

The action is likely to result in destruction or adverse modification of critical habitat.

The action is not likely to result in destruction or adverse modification of critical habitat.

Analyses for jeopardy and adverse modification

Section 7(a)(2) of the Act requires Federal agencies to satisfy two standards in carrying out their programs. Federal agencies must ensure that their activities are not likely to: (1) **jeopardize the continued existence of** any listed species, or (2) **result in the destruction or adverse modification of designated critical habitat**. Section 7(a)(4) requires Federal agencies to confer with the Services on actions likely to jeopardize the continued existence of any species proposed for listing or result in the destruction or **adverse modification** of any proposed critical habitat.

Regulations implementing these sections of the Act define "**jeopardize the continued existence of**" as: "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 a listed species in the wild by reducing the reproduction, numbers, or distribution of that species," and "destruction or **adverse modification**" as: "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."

cites: San Luis & Delta-Mendota Water Authority v. Natural Resources Defense Council No. 14-15871 archived on March 27, 2014

"**Critical Habitat**" for listed species consists of (1) specific areas within the geographical area currently occupied by a 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 (i) essential to the conservation of the species, and (ii) that may require special management considerations or protection, and (2) specific areas outside the geographical area occupied by a 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 (50 CFR §424.02(d)).

The Services' abilities to designate unoccupied habitat as critical habitat when such areas are essential to the conservation (recovery) of listed species adds another dimension to the analysis. It is possible to conclude **adverse modification** for proposed actions if unoccupied critical habitat is sufficiently affected to appreciably diminish its value for both survival and recovery. Therefore, it is practical to distinguish between occupied and unoccupied critical habitat when a biological opinion is prepared.

In evaluating project effects on critical habitat, the Services must be satisfied that the constituent elements of the critical habitat likely will not be altered or destroyed by proposed activities to the extent that the survival and recovery of affected species would be appreciably reduced. Modification or destruction of designated critical habitat that does not reach this threshold is not prohibited by section 7.

Independent analyses are made for **jeopardy** when the species is present or potentially present, and for **adverse modification** when designated critical habitat is affected. When both analyses are made and both standards are exceeded, the reasonable and prudent alternatives should address eliminating or reducing both conditions.

The determination of **jeopardy** or **adverse modification** is based on the effects of the action on the continued existence of the **entire** population of the listed species or on a listed population, and/or the effect on critical habitat as designated in a final rulemaking. When multiple units of critical habitat are designated for particular purposes, these units may serve as the basis of the analysis if protection of different facets of the species' life cycle or its distribution is essential to both its survival and recovery. Adverse effects on individuals of a species or constituent elements or segments of critical habitat generally do not result in **jeopardy** or **adverse modification** determinations unless that loss, when added to the environmental baseline, is likely to result in significant adverse effects throughout the species' range, or appreciably diminish the capability of the critical habitat to satisfy essential requirements of the species.

cited in San Luis & Delta-Mendota Water Authority v. Natural Resources Defense Council No. 11-15871 archived on March 2, 2014

Definitions to aid in determination of jeopardy or adverse effect

Appreciably 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.

Constituent elements: 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.

Occupied critical habitat: critical habitat that contains individuals of the species at the time of the project analysis. A species does not have to occupy critical habitat throughout the year for the habitat to be considered occupied (e.g. migratory birds). Subsequent events affecting the species may result in this habitat becoming unoccupied.

Recovery: improvement in the status of a 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. Said another way, recovery is the process by which species' ecosystems are restored and/or threats to the species are removed so self-sustaining and self-regulating populations of listed species can be supported as persistent members of native biotic communities.

Survival: the species' persistence, as listed or as a recovery unit, beyond the conditions leading to its endangerment, with sufficient resilience to allow recovery from endangerment. Said another way, survival is the condition in which a species continues to exist into the future while retaining the potential for recovery. This condition is characterized by a species with a sufficiently large population, represented by all necessary age classes, genetic heterogeneity, and number of sexually mature individuals producing viable offspring, which exists in an environment providing all requirements for completion of the species' entire life cycle, including reproduction, sustenance, and shelter.

Unoccupied critical habitat: critical habitat not occupied (i.e., not permanently or seasonally occupied) by the listed species at the time of the project analysis. The habitat may be suitable, but the species has been extirpated from this portion of its range. Conversely, critical habitat may have been designated in areas unsuitable for the species, but restorable to suitability with proper management, if the area is necessary to either stabilize the population or assure eventual recovery of a listed species. As recovery proceeds, this formerly unoccupied habitat may become occupied.

cited in San Luis & Delta-Mendota Water Authority v. Natural Resources Defense Council No. 11-15871 archived on March 27, 2014

Some designated, unoccupied habitat may never be occupied by the species, but was designated because it is essential for conserving the species because it maintains factors constituting the species' habitat. For example, critical habitat may be designated for an upstream area maintaining the hydrology of the species' habitat downstream from the designated area (e.g. Concho water snake).

a. Jeopardy analysis

In determining whether an action is likely to jeopardize the continued existence of a species, the action is viewed against the aggregate effects of everything that has led to the species' current status and, for non-Federal activities, those things likely to affect the species in the future. At this point, the biologist sums up the previous analyses done to determine (1) the status of the species, (2) the environmental baseline, (3) all effects of the proposed action, and (4) the cumulative effects of other anticipated actions.

The final analysis then looks at whether, given the aggregate effects, the species can be expected to both survive and recover, as those terms are defined above. For the **jeopardy** analysis, this survival is framed in terms of the species' reproduction, numbers, and distribution in the wild.

Exceptions to the application of the jeopardy standard to an entire species: In the majority of cases, a **jeopardy** opinion is rendered when the total of the species' status, environmental baseline, effects of the proposed action, and cumulative effects lead to the conclusion that the proposed action is likely to jeopardize the continued existence of the **entire** species, subspecies, or vertebrate population as listed. However, for some wide-ranging species or those with disjunct or fragmented distributions, strict adherence to this general policy can result in significant accumulated losses of habitat and population that may, in total, result in a **jeopardy** situation.

In the past, exceptions from applying the jeopardy standard to an entire species were granted by memorandum for specific populations or "recovery units" of a species. That process of limiting the exceptions to those populations/recovery units listed in a memo is hereby discontinued and all future exceptions will adhere to the following guidance.

Jeopardy analyses may be based on an assessment of impacts to distinct population segments (DPS) of a species documented per the Services' joint policy on DPS (1995) in a final listing rule, or to a DPS as identified in a NMFS recovery plan, or to recovery units when those units are documented as necessary to both the survival and recovery of the species in a final recovery plan(s), for which a notice of availability has been published in the Federal Register. For species which had recovery plan notices published prior to this guidance, an addendum to the recovery plan, documenting the need to evaluate **jeopardy** on separate recovery units, can be written, and notice of its availability should be published in the Federal Register. FWS Regional recovery coordinators should be able to provide a list of species which meet this requirement.

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At publication, a species' recovery plan lays out the best available scientific information relative to the areas and environmental elements needed for that species to recover. Recovery plans may geographically describe actual recovery units (e.g., show lines on a map) essential to recovering the species that may or may not have been designated as critical habitat. Figures 4-8 and 4-9 illustrate such site-specific delineation of recovery units for the Higgin's eye pearly mussel.

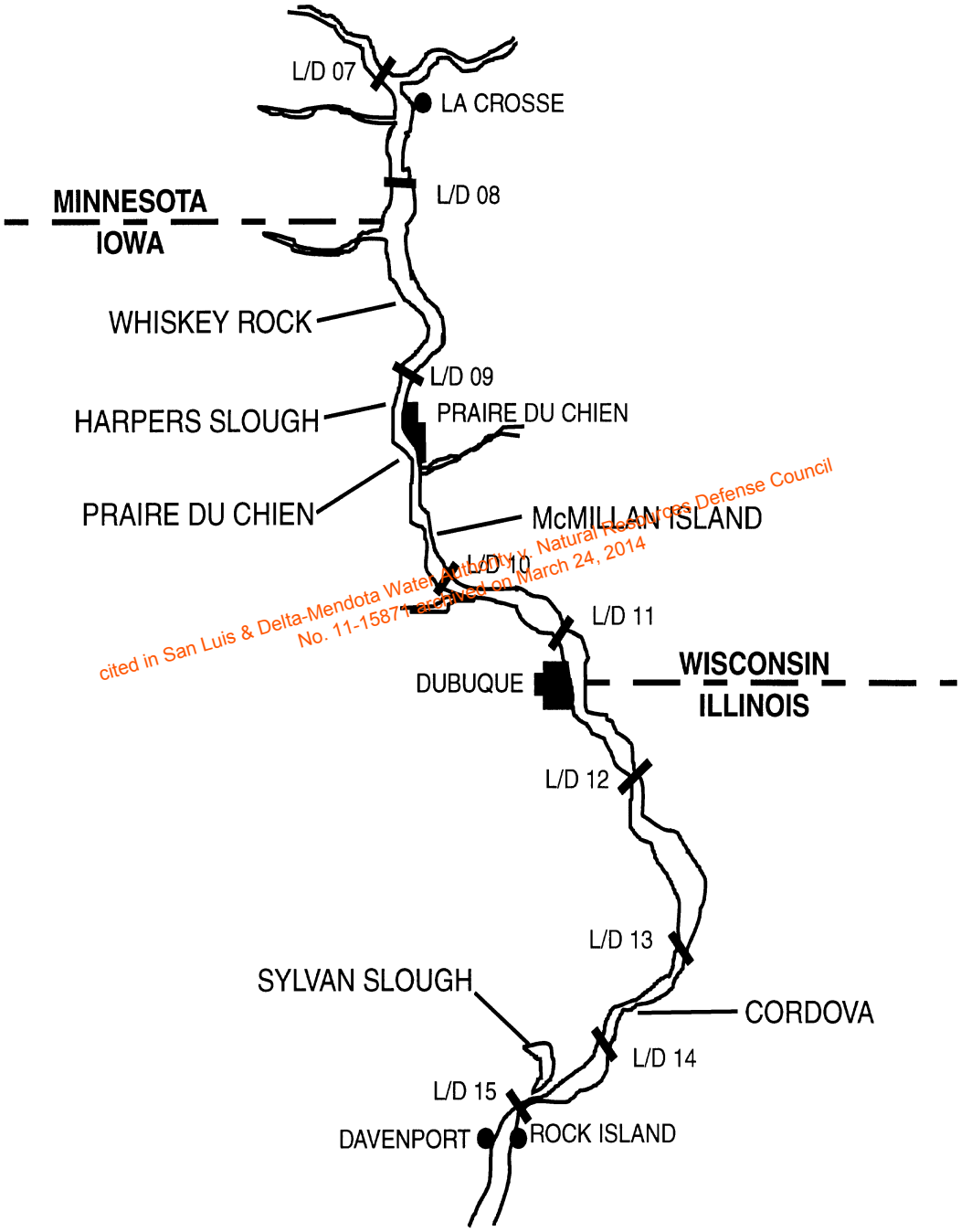
When an action appreciably impairs or precludes the capability of a recovery unit from providing both the survival and recovery function assigned it, that action may represent **jeopardy** to the species. When using this type of analysis, include in the biological opinion a description of how the action affects not only the recovery unit's capability, but the relationship of the recovery unit to both the survival and recovery of the listed species as a whole.

For example, the recovery plan for the Higgin's eye pearly mussel identifies several site-specific units of habitat essential to the recovery of the species. An action that adversely affects the critical features of one of these recovery units can jeopardize the survival and recovery of the entire species because each unit is an essential link in the same chain. However, when dealing with a recovery unit keep in mind the status of the species as a whole to ensure that an action affecting only one unit without broader geographical implications does not jeopardize the whole

species. For example, the Prairie du Chien recovery unit of the Higgin's eye pearly mussel, considered alone, might be relatively healthy and appear to be able to sustain some impact before the species in that recovery unit is jeopardized. But, as identified by the approved recovery plan, that recovery unit contains the only known reproducing individuals of the species and may represent a major source of individuals for ensuring the survival of other recovery units. Any loss of reproductive capability in the Prairie du Chien unit can represent **jeopardy** because the survival of the entire species would be significantly impaired.

cited in San Luis & Delta-Mendota Water Authority v. Natural Resources Defense Council
No. 11-15871 archived on March 24, 2014

Figure 4-8. Example of "recovery unit."



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b. Analysis of destruction or adverse modification of critical habitat

Critical habitat includes those physical and biological features essential to the conservation of listed species that may require special management considerations or protection. These physical and biological features include:

- space for individual and population growth and for normal behavior;
- food, water, air, light, minerals, or other nutritional or physiological requirements;
- cover or shelter;
- sites for breeding, reproduction, rearing of offspring, germination, or seed dispersal;
- habitats protected from disturbance or representative of the historic geographical and ecological distributions of a species.

Critical habitat designations must be thorough and accurate, encompassing habitat and its constituent elements which describe an area that is essential to the ultimate survival and recovery of the listed species. However, many critical habitat designations predate the requirement for identification of constituent elements or habitat qualities necessary to allow a species to survive and recover from the threat of extinction. In such cases, the biologist should use the best scientific and commercial data available to determine and document those characteristics of the designated critical habitat that support the species' survival and recovery.

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If an action affects critical habitat, but does not appreciably diminish the value of constituent elements essential to the species' conservation, the **adverse modification** threshold is not exceeded. On the other hand, the **adverse modification** threshold is exceeded when the proposed action will adversely affect the critical habitat's constituent elements or their management in a manner likely to appreciably diminish or preclude the role of that habitat in both the survival and recovery of the species. For conference purposes, constituent elements described in the proposed critical habitat rule are used to determine likely **jeopardy** or **adverse modification**.

The consultation or conference focuses on the entire critical habitat area designated unless the critical habitat rule identifies another basis for analysis, such as discrete units and/or groups of units necessary for different life cycle phases, units representing distinctive habitat characteristics or gene pools, or units fulfilling essential geographic distribution requirements.

To determine if a proposed action is likely to destroy or adversely modify critical habitat, refer to the critical habitat designation in 50 CFR §17 Subpart I. The rule provides a narrative

description of the area(s) included in the designation. A map of the critical habitat may be provided, and since 1985, the rule may identify constituent elements associated with the habitat.

The level of detail used to describe constituent elements contained in critical habitat designations varies widely. Some, usually older, critical habitat designations do not describe constituent elements, while others provide only a general description of the types of habitat contained within the designation.

For example, the critical habitat designation for the Perdido Key beach mouse (*Peromyscus polionotus trissyllepsis*) identifies the following constituent elements: "... dunes and interdunal areas, and associated grasses and shrubs that provide food and cover." Similarly, the critical habitat designation for the Sonora chub (*Gila ditaenia*) identifies primary constituent elements as "...clean permanent water with pools and intermediate riffle areas and/or intermittent pools maintained by bedrock or by subsurface flows in areas shaded by canyon walls." As data become available on the species' habitat needs and the qualitative and quantitative attributes of the physical and biological features representing "clean permanent water," it becomes possible to determine if an action is likely to destroy or adversely modify critical habitat.

cited in San Luis & Delta-Mendota Water Authority v. Natural Resources Defense Council No. 1:1-cv-00871 archived on March 24, 2014

The following steps help determine if a proposed action is likely to destroy or adversely modify critical habitat:

1. Review the status of the critical habitat as designated and the environmental baseline within the action area. The status and environmental baseline for any constituent elements may have been modified by actions considered in earlier biological opinions.

2. Those opinions should be consulted to determine the current baseline.

3. Evaluate the effects of the proposed action on the constituent elements of critical habitat.

4. Evaluate the cumulative effects in the action area on the critical habitat and its constituent elements.

5. Assess whether the aggregate effects of these analyses will appreciably diminish the value of the critical habitat in sustaining its role in both the survival and recovery of the species.

Critical habitat is not the same as a wilderness designation. Many activities can be expected to take place within critical habitat without conflicting with the prohibitions found in section 7(a)(2) of the Act.

Reasonable and prudent alternatives

This section lays out reasonable and prudent alternative actions, if any, that the Services believe the agency or the applicant may take to avoid the likelihood of **jeopardy** to the species or destruction or **adverse modification** of designated critical habitat (50 CFR §402.14(h)(3)). When a reasonable and prudent alternative consists of multiple activities, it is imperative that the opinion contain a thorough explanation of how each component of the alternative is essential to avoid **jeopardy** and/or **adverse modification**. The action agency and the applicant (if any) should be given every opportunity to assist in developing the reasonable and prudent alternatives. Often they are the only ones who can determine if an alternative is within their legal authority and jurisdiction, and if it is economically and technologically feasible.

If adopted by the action agency, the reasonable and prudent alternatives do not undergo subsequent consultation to meet the requirements of section 7(a)(2). The action agency's acceptance in writing of the Services' reasonable and prudent alternative concludes the consultation process.

Section 7 regulations (50 CFR §402.02) limit reasonable and prudent alternatives to:

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- alternatives the Services believe will avoid the likelihood of **jeopardy** or **adverse modification**,
- alternatives that can be implemented in a manner consistent with the intended purpose of the action,
- alternatives that can be implemented consistent with the scope of the action agency's legal authority and jurisdiction, and
- alternatives that are economically and technologically feasible.

If the Services conclude that certain alternatives are available that would avoid **jeopardy** and **adverse modification**, but such alternatives fail to meet one of the other three elements in the definition of "reasonable and prudent alternative," the Services should document the alternative in the biological opinion to show it was considered during the formal consultation process. This information could prove important during any subsequent proceeding before the Endangered Species Committee (established under section 7(e) of the Act), which reviews requests for exemptions from the requirements of section 7(a)(2).

Although a strong effort should always be made to identify reasonable and prudent alternatives, in some cases, no alternatives are available to avoid **jeopardy** or **adverse modification**. Examples include cases in which the corrective action relies on:

- o an alternative not under consideration (e.g., locating a project in uplands instead of requiring a Corps permit to fill a wetland);
- o actions of a third party not involved in the proposed action (e.g., only the County, which is not a party to the consultation, has the authority to regulate speed limits);
- o actions on lands over which the action agency has no jurisdiction or no residual authority to enforce compliance; and
- o data not available on which to base an alternative.

In these cases, a statement is included that no reasonable and prudent alternatives are available, along with an explanation. When data are not available to support an alternative, the explanation is that according to the best available scientific and commercial data, there are no reasonable and prudent alternatives to the action undergoing consultation.

The Services are committed to working closely with action agencies and applicants in developing reasonable and prudent alternatives. The Services will, in most cases, defer to the action agency's expertise and judgment as to the feasibility of an alternative. When the agency maintains that the alternative is not reasonable or not prudent, the reasoning for its position is to be provided in writing for the administrative record. The Services retain the final decision on which reasonable and prudent alternatives are included in the biological opinion. When necessary, the Services may question the agency's view of the scope of its authorities to implement reasonable and prudent alternatives.

cited in San Luis & Delta-Mendota Water Authority v. Natural Resources Defense Council No. 11-15871, archived on March 24, 2014

The following standardized paragraphs are used in the Reasonable and Prudent Alternatives section:

Introductory paragraph:

> **Regulations (50 CFR §402.02) implementing section 7 of the Act define reasonable and prudent alternatives as alternative actions, identified during formal consultation, that: (1) can be implemented in a manner consistent with the intended purpose of the action; (2) can be implemented consistent with the scope of the action agency's legal authority and jurisdiction; (3) are economically and technologically feasible; and (4) would, the Service believes, avoid the likelihood of jeopardizing the continued existence of listed species or resulting in the destruction or adverse modification of critical habitat.**

Closing paragraph:

> **Because this biological opinion has found (jeopardy/destruction or adverse modification of critical habitat), the (agency) is required to notify the Service of its final decision on the implementation of the reasonable and prudent alternatives.**

(B) Incidental Take Statement

> ***"(4) If after consultation under subsection (a)(2) of this section, the Secretary concludes that -***
>
> ***(A) the agency action will not violate such subsection, or offers reasonable and prudent alternatives which the Secretary believes would not violate such subsection;***
> ***(B) the taking of an endangered species or a threatened species incidental to the agency action will not violate such subsection; and***
> ***(C) if an endangered species or a threatened species of a marine mammal is involved, the taking is authorized pursuant to section 1371(a)(5) of this title;***
> ***the Secretary shall provide the Federal agency and the applicant concerned, if any, with a written statement that -***
>
> ***(i) specifies the impact of such incidental taking on the species,***
> ***(ii) specifies those reasonable and prudent measures that the Secretary considers necessary or appropriate to minimize such impact,***
> ***(iii) in the case of marine mammals, specifies those measures that are necessary to comply with section 1371(a)(5) of this title with regard to such taking, and***
> ***(iv) sets forth the terms and conditions (including, but not limited to, reporting requirements) that must be complied with by the Federal agency or applicant (if any), or both, to implement the measures specified under clauses (ii) and (iii)."***
>
> **Section 7(b)(4) of the Endangered Species Act**

cited in San Luis & Delta-Mendota Water Authority v. Natural Resources Defense Council No. 11-15041, archived on March 24, 2014

As a matter of policy, the Services require that an incidental take statement be included in all formal consultations, except those only involving plants, thus assuring the action agency that this element of formal consultation has been considered.

<u>What is incidental take?</u>

Properly interpreting an incidental take statement requires familiarity with section 9 of the Act, which identifies acts that are prohibited when dealing with any endangered and some threatened[1]

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1 Section 9 prohibitions generally have been applied by regulation to threatened species unless there are special rules that provide exemptions, or some other alternative approach (see 50 CFR 17.31). To determine if section 9 prohibitions apply to threatened

species of fish and wildlife. When the consultation involves listed plants, the agency is advised that the Act does not prohibit incidental take of these species. However, cautions may be provided on prohibitions against certain deliberate removal or disturbance of plants (see standardized statement on page 4- 47). The term "take" is defined by the Act (section 3(19)) to mean *"to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct."*

Most of these terms are commonly understood. However, the terms "harass" and "harm" have been further defined by FWS regulations at 50 CFR §17.3, as follows:

- Harass means 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.

- Harm means an act which actually kills or injures wildlife. Such acts may include significant habitat modification or degradation when it actually kills or injures wildlife by significantly impairing essential behavioral patterns including breeding, feeding or sheltering.

cited in San Luis & Delta-Mendota Water Authority v. Natural Resources Defense Council No. 1:1-cv-00871 archived on March 24, 2017

NMFS has not defined the terms "harass" or "harm." A 1981 FWS Solicitor's opinion (Appendix D, #SO-1) expands on these concepts, holding that an act that harasses wildlife must demonstrate the likelihood of injury to the species and some degree of fault, whether intentional or negligent. Thus, a private landowner who wishes to develop land that serves as habitat for listed wildlife is not harassing that wildlife if reasonable measures are taken to avoid their injury. However, if the modification of such habitat would likely result in death or injury, the species nevertheless would be "harmed."

On June 29, 1995, the Supreme Court upheld the FWS' definition of harm to include **adverse modification** of habitat in the Sweet Home case (Babbitt v. Sweet Home Chapter of Communities for a Great Oregon, et al., No. 94-859 [U.S. Supreme Court 1995]). A copy of the Supreme Court decision can be found in Appendix A.

Identifying habitat modifications that harm individuals of a species involves understanding the species' life history. For example, the Florida scrub jay is highly territorial and relies for its existence on food cached within its territory. A project that destroys occupied habitat and thus the food supply for that family group increases the likelihood of their starvation. Similarly, a number of birds are highly site-tenacious, returning year after year to the same nesting site. Removal of nesting habitat on that site is likely to result in loss of the pair's reproductive

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species, check 50 CFR Part 17 and 50 CFR Part 227 for any special rules that may have been promulgated for the species.

capability, and may result in loss of the pair for lack of available feeding or nesting habitat. Opening up or fragmenting the habitat may similarly affect the species by introducing increased predation or parasitism.

Incidental take statements exempt action agencies and their permittees from the Act's section 9 prohibitions if they comply with the reasonable and prudent measures and the implementing terms and conditions of incidental take statements.

> ***"(o) EXEMPTION AS PROVIDING EXCEPTION ON TAKING OF ENDANGERED SPECIES - ". . . (2) any taking that is in compliance with the terms and conditions specified in a written statement provided under subsection (b)(4)(iv) of this section shall not be considered to be a prohibited taking of the species concerned."***
>
> **Section 7(o)(2) of the Endangered Species Act**

In order to be considered in an incidental take statement, any taking associated with an agency's action must meet the following three criteria. The taking must:

San Luis & Delta-Mendota Water Authority v. Natural Resources Defense Council
No. 11-15871 archived on March 24, 2014
cited in the

- o not be likely to jeopardize the continued existence of listed species or destroy or adversely modify designated critical habitat,
- o result from an otherwise lawful activity, and
- o be incidental to the purpose of the action.

An agency action can meet the first criterion if (1) reasonable and prudent alternatives identified in a **jeopardy** or **adverse modification** biological opinion eliminate the likelihood of **jeopardy** to the species or **adverse modification** of designated critical habitat or (2) the Services make a finding of **no jeopardy** or **no adverse modification**. When the taking associated with the action violates any one of these criteria, the Services provide a documentation of that fact and a statement that such taking is prohibited by section 9.

In issuing an incidental take statement, the Services provide a statement of anticipated incidental take with reasonable and prudent measures, as appropriate, to minimize such take. This statement provides an exemption from the taking prohibitions of section 9 only when the agency and/or applicant demonstrate clear compliance with the implementing terms and conditions. These terms and conditions implement reasonable and prudent measures designed to minimize the impact of incidental take on the species as described in the incidental take statement and are binding on the action agency.

In preparing an incidental take statement, the Services are responsible for documenting the amount or extent of take anticipated; writing reasonable and prudent measures with implementing terms and conditions that are clear, precise, and enforceable; and including reporting requirements that assure timely compliance with the terms and conditions described.

The following standardized statements are provided for each section of the incidental take statement. For standardized statements for consultations involving migratory birds or marine mammals, see pages 4-56 and 4-57.

Introductory paragraph

> **Section 9 of the Act and Federal regulation pursuant to section 4(d) of the Act prohibit the take of endangered and threatened species, respectively, without special exemption. Take 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 FWS to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering. Harass is defined by FWS as intentional or negligent 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. Incidental take is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. Under the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental to and not intended as part of the agency action is not considered to be prohibited taking under the Act provided that such taking is in compliance with the terms and conditions of this Incidental Take Statement.**
>
> **The measures described below are non-discretionary, and must be undertaken by the (agency) so that they become binding conditions of any grant or permit issued to the (applicant), as appropriate, for the exemption in section 7(o)(2) to apply. The (agency) has a continuing duty to regulate the activity covered by this incidental take statement. If the (agency) (1) fails to assume and implement the terms and conditions or (2) fails to require the (applicant) to adhere to the terms and conditions of the incidental take statement through enforceable terms that are added to the permit or grant document, the protective coverage of section 7(o)(2) may lapse. In order to monitor the impact of incidental take, the (agency or applicant) must report the progress of the action and its impact on the species to the Service as specified in the incidental take statement. [50 CFR §402.14(i)(3)]**

cited in San Luis & Delta-Mendota Water Authority v. Natural Resources Defense Council
No. 11-1271, archived on March 21, 2014

When the biological opinion finds **jeopardy** or **adverse modification** without a reasonable and prudent alternative, the introductory statement is as follows:

This biological opinion finds the proposed action will result in (likely jeopardy to the species/destruction or adverse modification of critical habitat), and no reasonable and prudent alternative can be identified. Any incidental taking is prohibited by section 9 of the Act.

If listed plant species are present in the action area, the following special provisions apply:

Sections 7(b)(4) and 7(o)(2) of the Act generally do not apply to listed plant species. However, limited protection of listed plants from take is provided to the extent that the Act prohibits the removal and reduction to possession of Federally listed endangered plants or the malicious damage of such plants on areas under Federal jurisdiction, or the destruction of endangered plants on non-Federal areas in violation of State law or regulation or in the course of any violation of a State criminal trespass law. [Include citations to any applicable State laws.]

Amount or extent of take anticipated

This section outlines the amount of take anticipated from the action. Generally, incidental take is expressed as the number of individuals reasonably likely to be taken or the extent of habitat likely to be destroyed or disturbed. In determining whether the proposed action is reasonably likely to be the direct or indirect cause of incidental take, the Services use the simple causation principle; i.e., "but for" the implementation of the proposed action and its direct or indirect degradation of habitat, would actual injury or mortality to individuals of a listed wildlife species be reasonably likely to occur? If the take would not occur but for the proposed action, then the Services must describe the amount or extent of such anticipated incidental take.

cited in, San Luis & Delta-Mendota Water Authority v. Natural Resources Defense Council No. 1:12-cv-00671 archived on March 27, 2014

When preparing an incidental take statement, 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 which 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 indicating impact on the listed species, such as an amount or extent of decrease in numbers or recruitment, or in community dynamics. Similarly, if a sufficient causal link is demonstrated (i.e.

the number of burrows affected or a quantitative loss of cover, food, water quality, or symbionts), then this can establish a measure of the impact on the species or its habitat and provide the yardstick for reinitiation.

In programmatic or national consultations, which evaluate planning documents or broad programs (see Chapter 5, Special Consultations and Reviews), the best available scientific data may not support the determination of any anticipated level of incidental take. In such instances, the incidental take statement should indicate that, based on the best available data, no incidental take is anticipated and that the issue will be reexamined during the consultation process for site-specific actions under the umbrella of the larger planning document.

Also, the time period over which the incidental take is expected to occur is addressed in this section. For example, the statement should distinguish between an instance in which a permanent loss of two bald eagle nesting territories will result from construction of a new bridge, and a case in which the two territories are likely to be abandoned only during the actual construction period.

Standardized statements:

- Incidental take statement when no take is anticipated (**jeopardy** or **non-jeopardy** opinion):

cited in San Luis & Delta-Mendota Water Authority v. Natural Resources Defense Council No. 1:1-cv-00871 archived on March 27, 2014

The Service does not anticipate the proposed action will incidentally take any (species).

- Incidental take statement for a biological opinion of likely **jeopardy** when incidental take is anticipated:

o For opinions with only one reasonable and prudent alternative:

The Service has developed the following incidental take statement based on the premise that the reasonable and prudent alternative will be implemented.

o For opinions with more than one reasonable and prudent alternative, provide separate estimates of anticipated take for each reasonable and prudent alternative, as appropriate:

The Service has developed the following incidental take statement based on the premise that reasonable and prudent alternative number XX will be implemented.

- Introductory statement for amount and extent of take (**jeopardy** or **non- jeopardy** opinion):

The Service anticipates (number of individuals or extent of habitat resulting from take of (species)) could be taken as a result of this proposed action. The incidental take is

expected to be in the form of (harm, harass, kill, etc.). [Separately specify each type of take anticipated.]

[Provide a concise summary of the analysis leading to this determination.]

OR

The Service anticipates incidental take of (species) will be difficult to detect for the following reason(s): [Incidental take of actual species numbers may be difficult to detect when the species is wide-ranging; has small body size; finding a dead or impaired specimen is unlikely; losses may be masked by seasonal fluctuations in numbers or other causes (e.g., oxygen depletions for aquatic species); or the species occurs in habitat (e.g., caves) that makes detection difficult]. **However, the following level of take of this species can be anticipated by loss of** [quantify amount of surrogate species, food, cover, other essential habitat element such as water quantity or quality, or symbiont] **because:** [provide an explanation].

Effect of the take

cited in San Luis & Delta-Mendota Water Authority v. Natural Resources Defense Council No. 1:1-15871 archived on March 2, 2014

The requirement that incidental take not reach the level of **jeopardy** or **adverse modification** is addressed in the biological opinion that finds **no jeopardy/no adverse modification** for the action or that provides reasonable and prudent alternative(s) to avoid **jeopardy/adverse modification**.

Statement of impact:

o The following statement should be made when the biological opinion finds likely **jeopardy/adverse modification**, and no reasonable and prudent alternative is available.

Because the proposed action is (1) likely to jeopardize the continued existence of (species) or result in the destruction or adverse modification of critical habitat, and (2) no reasonable and prudent alternatives have been identified, any incidental take resulting from the proposed action would be prohibited.

o The proposed action is not likely to result in **jeopardy/adverse modification**:

In the accompanying biological opinion, the Service determined that this level of anticipated take is not likely to result in jeopardy to the species or destruction or adverse modification of critical habitat.

o The opinion contains reasonable and prudent alternatives:

In the accompanying biological opinion, the Service determined that this level of anticipated take is not likely to result in jeopardy to the species or destruction or adverse modification of critical habitat when (one of) the reasonable and prudent alternative(s) is implemented.

Reasonable and prudent measures

The incidental take statement provides nondiscretionary measures that are necessary and appropriate to minimize the impact of incidental take. In a biological opinion where there are a number of reasonable and prudent alternatives provided to eliminate **jeopardy** to a species, there may be varying levels of incidental take associated with the alternatives. In that case, the biological opinion may contain different incidental take statements, each with reasonable and prudent measures and terms and conditions, for each reasonable and prudent alternative.

Section 7 requires minimization of the level of take. It is not appropriate to require mitigation for the impacts of incidental take. Reasonable and prudent measures can include only actions that occur within the action area, involve only minor changes to the project, and reduce the level of take associated with project activities. These measures should minimize the impacts of incidental take to the extent reasonable and prudent. For example, a measure may call for actions like education of employees about the species, reduction of predation, removal or avoidance of the species, or monitoring. Measures are considered reasonable and prudent when they are consistent with the proposed action's basic design (e.g., narrowing of disturbed right-of-way at known species locations), location (e.g., temporary storage of equipment or other materials), scope, duration, and timing. The test for reasonableness is whether the proposed measure would cause more than a minor change to the project.

cited in San Luis & Delta-Mendota Water Authority v. Natural Resources Defense Council No. 1:05-cv-01207, archived March 24, 2014

Reasonable and prudent measures and terms and conditions should be developed in coordination with the action agency and applicant, if any, to ensure that the measures are reasonable, that they cause only minor changes to the project, and that they are within the legal authority and jurisdiction of the agency or applicant to carry out. For example, the effect of measures costing $10,000 or $100,000 may be critically significant for a single family boat dock, but minor for a multi-million dollar development complex. An example of an unreasonable measure would be a timing delay to minimize the impacts of incidental take if project timing is critical.

Reasonable and prudent measures serve to minimize impacts on the specific individuals or habitats affected by the action. Activities resulting from these measures must occur within the action area, which may be larger than the footprint of the project itself (see description of action area in section 4.5(A)).

Reasonable and prudent measures are not a substitute for a finding of **jeopardy** or **adverse modification**. Similarly, discretionary conservation recommendations under section 7(a)(1) are

not a substitute for reasonable and prudent measures as a means of minimizing the impacts of incidental take.

Standardized introductory paragraph for reasonable and prudent measures for species other than marine mammals and migratory birds:

> **The Service believes the following reasonable and prudent measure(s) are necessary and appropriate to minimize impacts of incidental take of (species):** [Go on to list these measures and provide a brief discussion documenting the Service's analysis of the biological need for, and reasonableness of, these measures.]

Terms and conditions

The terms and conditions set out the specific methods by which the reasonable and prudent measures are to be accomplished, e.g., who is to be educated, when/what/how; the actions necessary to reduce predation; who may remove or how to avoid the species; or the protocol for monitoring. Terms and conditions of an incidental take statement must include reporting and monitoring requirements that assure adequate action agency oversight of any incidental take [50 CFR §402.14(i)(1)(iv) and (i)(3)]. The monitoring must be sufficient to determine if the amount or extent of take is approached or exceeded, and the reporting must assure that the Services will know when that happens.

cited in San Luis & Delta-Mendota Water Authority v. Natural Resources Defense Council No. 11-15871 archived on March 24, 2014

The incidental take statement should include a discussion on the "disposition of individuals taken" that distinguishes between injured and killed animals, and tells the action agency (1) what needs to be done with sick or injured animals to assure adequate care; (2) how to preserve dead animals to determine the cause of death, if not known; (3) the procedures for disposing of the animal, including shipping preserved animals to research facilities; and (4) to notify the nearest Service Law Enforcement Office when a listed species is taken.

Care should be exercised in developing the incidental take statement and its terms and conditions. Consider: (1) any incidental take anticipated must not be likely to result in **jeopardy** or **adverse modification**; (2) the action agency must provide for monitoring the actual number of individuals taken; (3) review requirements need to determine when the reasonable and prudent measures are not reducing the effect to the extent anticipated; and (4) if the anticipated level of incidental take is exceeded, the action agency must immediately stop the action causing the taking and reinitiate formal consultation.

Standardized introductory paragraph for terms and conditions:

> **In order to be exempt from the prohibitions of section 9 of the Act, the (agency) must comply with the following terms and conditions, which implement the reasonable and**

prudent measures described above and outline required reporting/monitoring requirements. These terms and conditions are non-discretionary.

[Go on to list these terms and conditions, including the requirements for monitoring, reporting, review, [see 50 CFR 402.14(i)(1)(iv) and (i)(3)] and disposition of any specimens [see 50 CFR 402.14(i)(1)(v).]

Salvage of species and habitat data included as a term and condition: Where practical, an attempt should be made to salvage specimens or habitat data from areas to be destroyed as a direct or indirect result of the action. For example, when the Services determine that research would be beneficial to the species (generally identified by a recovery plan or recovery outline), and a willing researcher has a permit for that research, the terms and conditions could call for reasonable allowance to collect biological data on specimens that would be killed, or information on species' habitat (e.g., the construction, depth, moisture characteristics of underground burrows). "Reasonable" is to be defined in each case as appropriate to the action, and should not significantly delay legitimate project activities. For example, if the action is time sensitive, such as bulldozing a firebreak during a fire, there is likely to be insufficient time to collect specimens. However, should a long-term project be proposed, such as development of a housing project, more extensive opportunities for collection may exist.

Cited in San Luis & Delta-Mendota Water Authority v. Natural Resources Defense Council No. 11-00971, archived on March 24, 2014

Salvaging live specimens may minimize the net adverse effects of an action by providing individuals for captive breeding or approved translocation. If dead specimens can be collected, valuable data may still be obtained, possibly providing research material in lieu of the need to collect additional specimens.

Terms and conditions for salvage efforts are explicitly described in the incidental take statement to fully inform the action agency and/or the applicant of how they are to comply with that statement. Information is to be provided as to who will do the salvage, where, when, techniques to be employed, the fate of specimens and data collected, the possible need for Federal and/or State permits or other documentation to conduct the salvage operation or transfer the specimens, or guidelines on who to contact for changes in the protocol.

The impact of incidental take is to be minimized by the reasonable and prudent measures and implementing terms and conditions. In many cases, the implementation of the terms and conditions may lead to a reduction in the anticipated level of incidental take. <u>However, the incidental take statement quantifies the amount of take anticipated based on implementation of the proposed action before implementation of the terms and conditions</u>. To ensure that the measures are working as anticipated, a review requirement is included in the closing paragraph as follows:

Closing Paragraph

> **The Service believes that no more than (number or extent) of (species) will be incidentally taken as a result of the proposed action. The reasonable and prudent measures, with their implementing terms and conditions, are designed to minimize the impact of incidental take that might otherwise result from the proposed action. If, during the course of the action, this level of incidental take is exceeded, such incidental take represents new information requiring reinitiation of consultation and review of the reasonable and prudent measures provided. The Federal agency must immediately provide an explanation of the causes of the taking and review with the Service the need for possible modification of the reasonable and prudent measures.**

If, after receipt of a Final Biological Opinion, an action agency declines to take the reasonable and prudent measures and their implementing terms and conditions or to make them conditions of the license or permit, the Services document this fact(s) and state in writing that any anticipated taking would be prohibited by section 9, unless a permit is granted under section 10 of the Act. The Services should follow up with the action agency to determine if the terms and conditions have been implemented.

cited in San Luis & Delta-Mendota Water Authority v. Natural Resources Defense Council
No. 11-15871 archived on March 21, 2014

Coordination of incidental take statements with other laws, regulations, and policies

Section 10 permits

Section 10(a)(1)(A) permits (Research and Education)

Determining whether a section 10(a)(1)(A) permit is needed in addition to the incidental take statement depends on the proposed action. When intentional take is described as part of the proposal in order to minimize anticipated incidental take, the biological opinion and incidental take statement serve as the authority for that take. Example: "Take" of desert tortoises where a highway is to be constructed. Animals captured as part of the proposed action could be put in research or captive propagation projects. Since this intentional “take” would be a requirement of the proposed action to minimize the anticipated impact to the species, this action would not require a separate section 10 permit. However, if the terms and conditions require future take for research purposes, a separate section 10 permit is required. Example: If the biological opinion for the highway construction requires the agency to capture additional tortoises for study at a later date, a section 10 permit would be required.

Section 10 permits are not required for:

- activities carried out under an approved cooperative section 6 agreement as long as any taking of an endangered species is not reasonably anticipated to result in (1) the death or permanent disabling of the specimen; (2) the removal of the specimen from the State where

the taking occurred; (3) the introduction of the specimen so taken, or any progeny derived from such specimen, into an area beyond the historical range of the species; or (4) the holding of the specimen in captivity for a period of more than 45 consecutive days. (50 CFR §17.21(c)(5))

- o take activities directed by the terms and conditions of an incidental take statement in accordance with section 7(o)(2).

When incidental take involves an applicant or licensee, the permitting Federal agency should be directed to provide a copy of the incidental take statement to the applicant/licensee, or to include the language of the terms and conditions in the permit itself if they are to be implemented by the applicant. The applicant/licensee then has a document in their possession at anytime they are involved in an action that may result in take.

Terms and conditions covering research or other "enhancement" activities detail the conditions of the research or require a subsequent Service and/or State review and approval of the research plan. See the FWS Handbook for Endangered and Threatened Species Permits for conditions included in section 10 permits.

cited in San Luis & Delta-Mendota Water Authority v. Natural Resources Defense Council No. 1:1-1871 archived on March 24, 2014

Safe Harbor Agreements

The Act's "take" prohibitions may have, inadvertently, created some disincentives for non-Federal landowners to manage their lands for the benefit of listed species. To address this issue, the Services are seeking ways to encourage an "endangered species friendly" approach to non-Federal lands management through the creation of incentives or by removing conservation disincentives. One such approach is the "Safe Harbor" concept. This program protects landowners from the Act's restrictions when they cooperate with the Services to benefit listed species on their lands. A proposed policy and rule for the implementation of the Safe Harbor concept was published jointly by FWS and NMFS in the Federal Register on June 12, 1997 [62 FR 113, 32178-32183 and 32189-32194]. Some information contained in this section may be outdated upon publication of the final policy and regulations. Users of this handbook should check the final policy and regulations for further guidance.

"Safe Harbor" agreements are currently developed through existing Act provisions under section 10(a)(1)(B). Under these agreements non-Federal landowners are encouraged to maintain or enhance existing endangered species habitat, to restore listed species habitats, or to manage their lands in a manner that benefits listed species. In return, the Services provide assurances that future activities would not be subject to restrictions above those applicable to the property at the time of enrollment into the program. As a result, any endangered species occupying a landowner's property at the time of enrollment in the program would remain protected (baseline). Thus, to implement the "Safe Harbor" program, the Services must authorize incidental take of all

listed species on an enrolled property in excess of those lands or animals that were already protected at the time of signing the agreement. Once the proposed policy and regulations are final, these arrangements will be formalized through an enhancement of survival permit (section 10(a)(1)(A)) and an agreement or similar instrument between the landowner and the Services, and would be subject to intra-Service section 7 consultation.

In essence, future incidental taking of non-baseline animals and habitat would be authorized. While not totally risk free, the Services believe this approach will provide positive conservation benefits. The animals and habitat that would be taken under the program would not have existed but for the program and without the programs' incentives, landowners may continue to actively exclude listed species in land management activities. This approach will help reduce habitat fragmentation, increase population numbers and serve as a way to field test innovative management techniques. Some of these gains will be reversed when landowners choose to return to baseline conditions, but the Services believe that the gains will outweigh the reversals. This approach is expected to help diminish the fear and distrust that many non-Federal landowners have toward listed species and the Act.

Section 10(a)(1)(B) permits (Conservation Plans)

cited in San Luis & Delta-Mendota Water Authority v. Natural Resources Defense Council No. 1:15-cv-00071, archived on March 24, 2014

Permits for incidental take under section 10(a)(1)(B) require a FWS or NMFS intra-Service consultation. These consultations are conducted in the same manner as outlined in this chapter except that the incidental take statement is governed by section 10(a)(1)(B) to the extent that mitigation, including off-site compensation not directed at the affected individuals, may be considered. Specific procedures for FWS intra-Service consultation are outlined in Appendix E of this handbook. The intra-Service consultation should be done concurrently during development of the Habitat Conservation Plan, and finalized once the HCP has been officially submitted. The Services have developed a handbook for Habitat Conservation Planning and Incidental Take Permit Processing (November 1996), which should be referenced for further information.

In some cases, Federal agencies besides the Services may be integrally involved in HCP efforts. In these cases, the action to be conducted by the Federal agency during the implementation of the HCP should be included as an additional element to be consulted on through the section 7 consultation conducted for the issuance of a permit. This allows the Services to conduct one formal consultation that incorporates the actions for the HCP and any related and supportive Federal actions into one biological opinion. The biological opinion developed for the HCP should also incorporate the necessary biological analysis on the Federal action as well as the actions in the HCP to help eliminate duplication. Thus, the single biological opinion issued by the Services would address both the Federal action and the non-Federal action, and it would include an incidental take statement that authorizes any incidental take by the Federal agency and an incidental take permit that authorizes any incidental take by the section 10 permittee. Also,

the incidental take statement in a section 7 biological opinion does not provide a "No Surprises assurances" guarantee. The action agency is responsible for reinitiating consultation should their actions result in exceeding the level of incidental take.

The incidental take statement for any section 10(a)(1)(B) permit application includes the following standardized language which would replace the second paragraph in the standardized introductory paragraph language given on page 4-46. Appropriate changes may be made in the wording of the following paragraphs when consulting on any subsequent amendments to the permit.

> **The proposed (name)] HCP and its associated documents clearly identify anticipated impacts to affected species likely to result from the proposed taking and the measures that are necessary and appropriate to minimize those impacts. All conservation measures described in the proposed HCP, together with the terms and conditions described in any associated Implementing Agreement and any section 10(a)(1)(B) permit or permits issued with respect to the proposed HCP, are hereby incorporated by reference as reasonable and prudent measures and terms and conditions within this Incidental Take Statement pursuant to 50 CFR §402.14(i). Such terms and conditions are non-discretionary and must be undertaken for the exemptions under section 10(a)(1)(B) and section 7(o)(2) of the Act to apply. If the permittee fails to adhere to these terms and conditions, the protective coverage of the section 10(a)(1)(B) permit and section 7(o)(2) may lapse. The amount or extent of incidental take anticipated under the proposed (*name*) HCP, associated reporting requirements, and provisions for disposition of dead or injured animals are as described in the HCP and its accompanying section 10(a)(1)(B) permit(*s*).**

Cited in San Luis & Delta-Mendota Water Authority v. Natural Resources Defense Council No. 11-15871 archived on March 24, 2014

Migratory birds including bald eagles

Some migratory birds (e.g., golden-cheeked warbler and the bald eagle) are also listed as either threatened or endangered species. Incidental take for these species can be granted under the Act, but neither the Migratory Bird Treaty Act (MBTA) nor the Bald and Golden Eagle Protection Act (BEPA) have explicit provisions that address incidental take.

This situation has now been clarified via a February 9, 1996, Director's memo (see Appendix D, SO-6). FWS may use its powers of prosecutorial discretion to determine that if incidental take of listed migratory birds, including the bald eagle, occurs, and if the requirements of the consultation have been met, the FWS would choose not to prosecute the incidental take under the MBTA or the BEPA. Any appropriate actions to minimize incidental take of threatened or endangered migratory birds or bald eagles may be addressed in the incidental take statement provided with the biological opinion.

Again, only incidental take of migratory birds listed as threatened or endangered under the Act, including bald eagles, may be addressed in the following language. Include, when appropriate, the following language into any section 7 incidental take statement concluding that take of listed migratory birds (including the bald eagle) will result from the actions under consultation:

> **The Fish and Wildlife Service will not refer the incidental take of any migratory bird or bald eagle for prosecution under the Migratory Bird Treaty Act of 1918, as amended (16 U.S.C. §§ 703-712), or the Bald and Golden Eagle Protection Act of 1940, as amended (16 U.S.C. §§ 668-668d), if such take is in compliance with the terms and conditions (including amount and/or number) specified herein.**

Marine mammals

The incidental take of listed marine mammals must meet the requirements of the Marine Mammal Protection Act (MMPA) as well as the Act. NMFS has responsibility for listed species of whales, dolphins, seals and sea lions; FWS has responsibility for the southern sea otter and manatee. Framework regulations at 50 CFR §18.27 and Parts 216 and 229 establish standards and a process for determining whether an exception exists for incidental taking of small numbers of marine mammals related to a specific activity in a specific geographic region. After a set of area-specific regulations are promulgated for a particular area or activity, letters of authorization are issued annually by the NMFS or the FWS, depending on the species involved, to each person wishing to conduct an activity that may result in incidental take.

cited in San Luis & Delta-Mendota Water Authority v. Natural Resources Defense Council No. 13-1271, archived on March 24, 2014

In addition, the MMPA amendments of 1994 authorize incidental take of marine mammals in the form of "harassment" authorizations for non-commercial fishing activities, and permits for incidental take for commercial fishing activities under certain circumstances. NMFS has published regulations implementing the 1994 MMPA amendments. [61 FR 45086 (August 30, 1995) and 61 FR 15884 (April 10, 1996)] The August 1995 regulations concern the taking of marine mammals incidental to commercial fishing operations. The April 1996 regulations clarify the existing regulations for obtaining a small, incidental take authorization for other activities. Consistent with the Act and regulations at 50 CFR §402.14(i) (Appendix A), incidental take statements for marine mammals are not included in formal consultations until regulations, authorizations, or permits under MMPA 101(a)(5) are in effect.

Standard paragraph for incidental take of marine mammals: [If the incidental take is not authorized under MMPA 101(a)(5):]

> **The Service is not including an incidental take authorization for marine mammals at this time because the incidental take of marine mammals has not been authorized under section 101(a)(5) of the Marine Mammal Protection Act and/or its 1994 Amendments. Following issuance of such regulations or authorizations, the Service**

may amend this biological opinion to include an incidental take statement for marine mammals, as appropriate.

After area-specific or activity-specific regulations have taken effect:

Pursuant to section 101(a)(5) of the Marine Mammal Protection Act, as amended in 1994, and implementing regulations at 50 CFR §18.27, and 50 CFR §216 and §229, the following measures are required to be consistent with the total taking allowable under the MMPA authorization and to effect the least practical adverse impact on the species and its habitat and on the availability of the species for subsistence uses: [Cite measures identified in specific regulations and/or letters of authorization or permits for commercial fishing]. **Pursuant to section 7(b)(4) of the Endangered Species Act, the following reasonable and prudent measures are necessary and appropriate to minimize take:** [Go on to list the measures, followed by the standard paragraph for terms and conditions.]

(C) Conference Report/Conference Notice

cited in San Luis & Delta Mendota Water Authority v. Natural Resources Defense Council No. 1:05-cv-01207, archived on March 24, 2014

In addition to determining whether an action is likely to jeopardize listed species or destroy or adversely modify designated critical habitat, the Services also may assist action agencies in making such a preliminary determination for proposed species or proposed critical habitats. The final determination of likely **jeopardy** or **adverse modification** to such proposed species or critical habitats remains with the Services. When the Services make a preliminary determination that a proposed agency action presents the likelihood of **jeopardy** to proposed species or **adverse modification** to proposed critical habitat, the action agency should be advised in writing. A determination should be made as to whether the agency wants the proposed species/critical habitat included in the formal consultation.

If the agency does not want proposed species/critical habitat considered, notice of the need to confer (or, if the action agency requests an informal conference, the conference report) is included in the consultation package following the incidental take statement. A finding of "likely to jeopardize" is not required to trigger the conference procedure if the action agency wishes to initiate a review of possible effects on a proposed species or critical habitat. The Services will confer when an agency requests such a conference based on their determination that the proposed action may affect a proposed species or critical habitat.

When an action agency requests formal conference for an action that also affects listed species, the analyses of effects may be included in the body of the biological opinion. However, an incidental take statement for proposed species is separated from that for listed species, and contains the standardized language provided in Chapter 6.

(D) Conservation Recommendations

> ***"(1) The Secretary shall review other programs administered by him and utilize such programs in furtherance of the purposes of this Act. All other Federal agencies shall, in consultation with and with the assistance of the Secretary, utilize their authorities in furtherance of the purposes of this Act by carrying out programs for the conservation of endangered species and threatened species. . . ."***
>
> **Section 7(a)(1) of the Endangered Species Act**

When the Services identify discretionary actions the action agency can implement, relevant to the proposed action and consistent with their section 7(a)(1) authority, voluntary conservation recommendations may be included as a separate item in the consultation package. Conservation recommendations serve several purposes. They can suggest how an action agency can assist species conservation in furtherance of their responsibilities under section 7(a)(1) of the Act. They may further minimize or avoid the adverse effects of a proposed action on listed species or critical habitat - in which case they are applied after the terms and conditions of the incidental take statement are implemented. They may also suggest ways to minimize or avoid the adverse effects of a proposed action on proposed or candidate species. They can recommend studies improving an understanding of a species' biology or ecology. Wherever possible, these actions should be tied to tasks identified in recovery plans.

cited in San Luis & Delta-Mendota Water Authority v. Natural Resources Defense Council
No. 11-15871 archived on March 29, 2012

Conservation recommendations may be provided separately or at the end of the consultation package, but they are not incorporated anywhere in the biological opinion or incidental take statement where they may be confused with the opinion or statement itself. These recommendations are <u>never</u> a precondition for a subsequent finding of **no jeopardy** or to reduce the impacts of anticipated incidental take.

Standardized paragraphs for conservation recommendations:

Introductory paragraph:

> **Section 7(a)(1) of the Act directs Federal agencies to utilize their authorities to further the purposes of the Act by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities to minimize or avoid adverse effects of a proposed action on listed species or critical habitat, to help implement recovery plans, or to develop information.**

Closing paragraph:

In order for the Service to be kept informed of actions minimizing or avoiding adverse effects or benefitting listed species or their habitats, the Service requests notification of the implementation of any conservation recommendations.

(E) Reinitiation Notice

Section 7 regulations outline four general conditions for reinitiating formal consultation: (1) the amount or extent of incidental take is exceeded; (2) 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; (3) the action is modified in a manner causing effects to listed species or critical habitat not previously considered; (4) a new species is listed or critical habitat designated that may be affected by the action.

In this section, the Services should identify situations, if any, that meet one or all of these four conditions. For example, the Services may identify studies in progress whose results may cause a reassessment of the biological opinion, or proposed listings or critical habitat designations.

Federal action agencies should be informed of the advisability of maintaining a Federal nexus for the project so that consultation can be reinitiated, if necessary. This is usually done by making the terms of the biological opinion a condition of the license, permit, or other authorization that is issued for project approval.

cited in San Luis & Delta-Mendota Water Authority v. Natural Resources Defense Council, No. 11-15871 archived on March 24, 2014

The standard closing statement of the formal consultation package is as follows:

This concludes formal consultation on the action(s) outlined in the (request/reinitiation request). As provided in 50 CFR §402.16, reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been retained (or is authorized by law) and if: (1) the amount or extent of incidental take is exceeded; (2) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered in this opinion; (3) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat not considered in this opinion; or (4) a new species is listed or critical habitat designated that may be affected by the action. In instances where the amount or extent of incidental take is exceeded, any operations causing such take must cease pending reinitiation.

(F) Literature Cited

Section 7(a)(2) of the Act requires biological opinions to be based on "the best scientific and commercial data available." This section of the opinion identifies the scientific and commercial data used in development of the biological opinion.

4.6 PROCEDURES FOR MODIFYING BIOLOGICAL OPINIONS AND INCIDENTAL TAKE STATEMENTS

When the action agency determines that one or more of the four conditions requiring reinitiation of formal consultation has occurred, consultation must be reinitiated. Similarly, if the Services recognize that any of these conditions have occurred, written advice is provided to the action agency of the need to reinitiate consultation.

Documentation of a reinitiated consultation must be in writing, and must contain sufficient information to record the nature of the change in the action's effects and the rationale for amending analyses of anticipated incidental take or the reasonable and prudent alternatives or measures (Exhibit 4-4).

Reinitiations involving major changes in effects analyses or changes in the Services' biological opinion are addressed fully in a new consultation. A reinitiation based on a new species listing or critical habitat designation is treated as a new consultation, although data in the original opinion may be referenced when the action has not changed.

cited in San Luis & Delta-Mendota Water Authority v. Natural Resources Defense Council
No. 11-15871 archived on March 24, 2014

Exhibit 4-4. Example of modification of an incidental take statement.

United States Department of the Interior

FISH AND WILDLIFE SERVICE

FISH AND WILDLIFE ENHANCEMENT
RENO FIELD STATION
4600 Kietzke Lane, Building C-125
Reno, Nevada 89502-5093

February 7, 1991

File No.: 1-5-90-F-25

Memorandum

To: District Manager, Las Vegas District, U. S. Bureau of Land Management, Las Vegas, Nevada

From: Field Supervisor, Reno Field Station, U. S. Fish and Wildlife Service, Reno, Nevada

cited in San Luis & Delta-Mendota Water Authority v. Natural Resources Defense Council No. 11-15871 archived on March 24, 2014

Subject: Clark County Regional Flood Control District's Proposed 10-Year Plan for Flood Control Facilities: Amendment to Opinion

This letter constitutes an amendment to the August 29, 1990, Biological Opinion on the Clark County Regional Flood Control District's (District's) 10-Year Plan (File No: 1-5-90-F-25). The Fish and Wildlife Service (Service) has received verbal communication from _____(name)____ of the Bureau of Land Management's Las Vegas District office on January 10, 1991, and copies of correspondence to your agency from the District dated November 26, 1990, and January 3, 1991, regarding changes in the design of the Upper Las Vegas Wash Detention Basin (Facility N3-8). In addition, that portion of the floodway (N3-1) extending north of the detention basin is proposed to be eliminated. ____(name)____ requested our determination of whether additional surveys would be required, and whether formal consultation with the Service should be reinitiated.

Our review of the alternative proposal indicates that the overall size of the new detention basin will be 5 acres less than that of the original facility. Furthermore, the area to be disturbed by the new proposed dike, located in the same general area as the floodway, is less than that of the portion of the floodway that will be eliminated by the alternative design. Therefore it is likely

that the level of incidental take that would occur from construction of N3-8 Alt. would not exceed that which would occur from the original proposal.

Accordingly, the following condition is substituted for Condition l.e. of the Biological Opinion issued to your agency on August 29, 1990. The change from the original condition is underlined.

l.e. Temporary tortoise proof fencing shall be erected around each of the following facilities prior to beginning construction activities: N3-8 Alt ; N4-8; N5-1, 2, 3, 4, 5, 6; N10-9, 10, 11; N12-9, 10, 11; Cl-45; C2-46, 47, 48, 49, 52, 53; Sl-59; S2-81; S4-23, 24; S20-17; S21-28, 29; S22-25; 4109-28. A qualified biologist shall supervise the erection of the fence. All tortoise burrows and other burrows and dens that could be occupied by tortoises within the fence construction zone shall be excavated by hand. All tortoises, including any eggs found, shall be removed from the fence construction zone according to the protocol provided in Appendix C prior to brush removal, grading, and fence installation.

If you have any questions, please contact ___(name)_____ of this office at ____(phone)____.

Sincerely yours,

cited in San Luis & Delta-Mendota Water Authority v. Natural Resources Defense Council
No. 11-15871 archived on March 24, 2014

Field Supervisor

4.7 HANDLING CLASSIFIED DOCUMENTS

National security classified documents used during consultation require specialized handling.

- Only personnel trained and qualified to handle such documents may do so. Security clearances are regularly checked to determine if they are still current.

- If classified information is included in the biological opinion, that portion of the document is covered by a derivative classification (and must be marked and protected accordingly), and can be reviewed only by appropriate personnel with the required security clearance who have a need to know.

- All classified documents are to be maintained in files secured for their level of security. See Departmental regulations for handling of such files.

- Classified information is exempt from disclosure under the Freedom of Information Act (FOIA).

San Luis & Delta-Mendota Water Authority v. Natural Resources Defense Council
No. 1:14-cv-00071 archived on March 24, 2014
cited in

When classified documents or information will be required for a consultation, FWS personnel should check with the FWS Regional Office and the Department of the Interior's Security Office in Washington, DC, for current procedures and names of personnel with appropriate security clearances who are authorized to review the classified information. Similarly, NMFS personnel should contact the Endangered Species Division at Headquarters to determine the appropriate security procedures and contacts.

4.8 PROTECTION OF CONFIDENTIAL BUSINESS INFORMATION

During the course of consultations, some of the information received or gathered may contain trade secrets and commercial or financial information that is prohibited from release by Federal statute. Further, under FOIA, information may be exempt from disclosure if its release would cause competitive harm to the submitter, would impair the Government's ability to gather necessary information in the future, or would interfere with compliance or program effectiveness. If confidential information was provided to the Services by the action agency, outside requests for access to, or copies of, the information generally should be referred to the agency that collected the information for a determination concerning release (made under 43 CFR §2.15(c)). If the Services obtained the information directly from the businesses or organizations (including sole proprietorships), the Services will generally need to make a determination concerning release in accordance with the FOIA (Part 203 of the Fish and Wildlife Manual). Contact your Regional FOIA Coordinator or the Services' FOIA Officer for assistance in processing such requests.

4.9 DISTRIBUTION OF FINAL FORMAL CONSULTATION DOCUMENTS

Upon completion, the formal consultation package is provided promptly to the action agency and the applicant, if any. The action agency then provides copies to other interested parties. For example, EPA is responsible for distributing pesticide consultation documents. However, if the action agency refuses to provide copies, the Services will provide copies upon request after sufficient time (10 working days) has passed to ensure that the action agency has received the consultation document. The Services will inform the action agency that they are responding to the request.

Exceptions to this waiting period include providing copies simultaneously to appropriate State and tribal agencies when they are involved in the consultation or implementation of terms of the biological opinion.

Consultations containing classified material or confidential business information follow procedures laid out in 4.7 and 4. 8 above.

cited in San Luis & Delta-Mendota Water Authority v. Natural Resources Defense Council
No. 11-15871 archived on March 24, 2014