

NATIONAL PARK SERVICE

**REFERENCE MANUAL
RM 77-8:**

ENDANGERED SPECIES MANAGEMENT

**NATIONAL PARK SERVICE
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TABLE OF CONTENTS

I.	BACKGROUND AND PURPOSE	1
	a. General	1
	b. Authorities	1
II.	PROGRAM DIRECTIVES	2
	a. Federally Listed Species	2
	b. State and Locally Listed Species	3
	c. Rare and/or Sensitive Species	4
	d. Priorities for Management	5
	e. Key Provisions of the ESA	5
	e. Consultation Under the Endangered Species Act	6
	f. Coordination of Recovery Efforts	12
III.	PROGRAM GUIDANCE	13
	a. General	13
	b. Management of Endangered and Threatened Species	15
	c. Monitoring	17
	d. Research	17
	e. Information and Education	18
	f. Reporting	18
	g. Permits	19
III.	ROLES AND RESPONSIBILITIES	19
IV.	DEFINITIONS	22
V.	APPENDICES	
	a. Required Actions	A-1
	b. Informal Consultation Process	B-1
	c. Formal Consultation Process	C-1
	d. Conference Process	D-1
	e. Biological Assessments	E-1

I. BACKGROUND AND PURPOSE

a. General.

Endangered and threatened species of plants and animals present unique management challenges for the National Park Service (NPS). They also present opportunities for national parks to assist or assume the lead in species recovery efforts. Listed species frequently require single-species management within an ecosystem management concept. This Reference Manual (RM) discusses NPS responsibilities under the Endangered Species Act (ESA) and how we manage federally endangered, threatened, proposed, candidate, rare, and sensitive species; experimental populations; designated and proposed critical habitat; as well as state endangered and threatened species or species of concern.

b. Authorities.

The ESA (16 USC 1531 *et seq.*) was passed by Congress in 1973. The purposes of the ESA, as amended, are “to provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved, to provide a program for the conservation of such endangered species and threatened species, and to take such steps as may be appropriate to achieve the purposes of the treaties and conventions set forth.” The ESA states that “all federal departments and agencies shall seek to conserve endangered species and threatened species and shall use their authorities in furtherance of the purposes of this Act.”

The ESA directs federal agencies to carry out programs for the conservation of endangered and threatened species and to insure that any action authorized, funded, or carried out by an agency is not likely to jeopardize the continued existence of endangered or threatened species or result in the destruction or adverse modification of critical habitat.

The Secretaries of Interior and Commerce administer the ESA through the U.S. Fish and Wildlife Service (FWS) and National Marine Fisheries Service (NMFS), respectively. The FWS takes the lead for terrestrial plants and animals and resident freshwater aquatic species. The NMFS assumes the lead role for marine and anadromous species, such as salmon, cetaceans (whales and porpoises), and most pinnipeds (Steller sea lion, Hawaiian monk seal, etc.).

In addition to the ESA, the following legislation, policies, and agreements provide the authority for NPS policies on management of threatened and endangered species:

- The Migratory Bird Treaty Act.
- The Fish and Wildlife Coordination Act.
- The Marine Mammal Protection Act.

- The Bald and Golden Eagle Protection Act.
- The Wilderness Act.
- The Convention on International Trade in Endangered Species of Wild Fauna and Flora.
- Maritime and other international agreements.

NPS Management Policies, Chapter IV, prescribes management of endangered, threatened, and candidate species in conformance with the ESA, recovery plans, and other related documents.

Director's Order 77-8: Endangered Species provides direction on management responsibilities with respect to endangered, threatened, and candidate species under the ESA and sensitive, rare, or state-listed species under NPS Management Policies.

Other related guidance is found in Director's Order (DO)/RM 2 Planning Process, DO/RM 12 Environmental Analysis, DO/RM18 Fire Management, DO/RM 20 Federal Assistance and Interagency Agreement, DO/RM 28 Cultural Resources Management, DO/RM 53, Special Park Uses, DO 67 Protected Resource Information, and DO/RM 9 Law Enforcement.

Recovery plans have been prepared for most listed species and provide detailed conservation direction and activities to be undertaken by federal, state, and/or private entities.

II. PROGRAM DIRECTIVES

a. Federally Listed Species.

NPS will fully meet its obligations under the ESA and the NPS Organic Act to both proactively conserve listed species and to prevent detrimental effects on these species. The NPS will operate as follows:

(1) Survey, protect, monitor, restore, and strive to recover all species listed, proposed, or candidates for listing under the ESA that are native to NPS units.

This includes the following:

- Mapping species' distribution in the park.
- Determining numbers of individuals, threats to the species, source of threats, and population condition and trends. The monitoring of listed species and key threats should be included in park-wide monitoring efforts (e.g., vital signs monitoring) whenever feasible.
- Pursuing recovery of species through the management of endangered, threatened, and candidate species, and their critical habitats, in conformance with the ESA, recovery plans, and other pertinent documents. In the absence of approved recovery plans, subject matter experts from federal, state, and

private entities (e.g., state natural heritage programs, The Nature Conservancy, and universities) should be consulted to assist in establishing management actions and priorities for conservation of these species.

- Restoring native species, including endangered, threatened, proposed, and candidate species, to their historic range when feasible and where suitable habitat exists or can be restored.
- Managing designated critical habitat, essential habitat, and recovery areas to maintain and enhance their value for the recovery of threatened and endangered species. This includes identifying critical habitat (if any) within NPS units. Determine all management actions for the protection and perpetuation of federally listed, proposed, and candidate species through the park management planning process. Ensure consideration of federal listed, proposed, and candidate species in all park planning and National Environmental Policy Act (NEPA) documents.
- Integrating to the fullest extent possible park management actions with other federal, state, and private recovery efforts. Coordinating NPS management and monitoring programs with other federal and state agencies and adjacent private landowners where habitat and species restoration is critical to the recovery of listed species. Cooperating with other agencies, states, and private entities to promote candidate conservation agreements aimed at precluding the need to list species.
- Encouraging and supporting NPS involvement on recovery teams and recovery implementation teams, as appropriate.
- Assess, document, and report annually on the status of listed, proposed, and candidate species in each NPS unit with respect to presence/absence, status trends, and funds expended.

(2) Through collaboration, coordination, and education, ensure whenever possible that activities, projects, or programs of neighboring land owners do not adversely impact endangered, threatened, proposed, or candidate species and their critical habitats within the park.

(3) Identify when research relevant to the preservation and recovery of listed, proposed, and candidate species on NPS lands is needed. Undertake, support, and facilitate research.

b. State and Locally Listed Species.

Management of state and locally endangered and threatened species should, to the greatest extent possible, parallel the management of federally listed species. The commitment of resources by NPS to inventory, monitor, restore, and manage these species will be assessed relative to the threat to the species and the needs of federally listed species. In most instances, NPS will meet its high priority management responsibilities to federally listed species first and then address state

and locally listed species. For state and locally listed species, NPS will, as financial and staff resources permit, proceed as follows:

(1) Survey for, protect, monitor, restore, and strive to recover all such species that are native to NPS units. This includes the following:

- Mapping species' distribution in the park.
- Determining numbers of individuals, threats to the species, source of threats, and population condition and trends.
- Pursuing recovery of species through the management of species and their habitats. Determine all management actions for the protection and perpetuation of state and locally listed species through the park management planning process. Ensure consideration of such species in all park planning and NEPA documents. Integrate to the fullest extent possible park management actions with other federal, state, and private recovery efforts. In the absence of approved state recovery plans, subject matter experts from federal, state, and private entities (e.g., state natural heritage programs, The Nature Conservancy, and universities) should be consulted to assist in establishing management actions and priorities for conservation of these species.
- Restoring native species to their historic range when feasible and where suitable habitat exists or can be restored.
- Coordinating management and monitoring programs with other federal and state agencies and adjacent private landowners where habitat and species restoration is critical to the protection of these species.

(2) Identify when research relevant to the conservation of state and locally listed species on NPS lands is needed. Undertake, support, and facilitate research as resources permit.

c. Rare and/or Sensitive Species.

A park, region, network, or a variety of groups (e.g., state heritage programs or The Nature Conservancy) may identify rare and sensitive species. The NPS will inventory rare and sensitive species, as resources permit, and will manage them to maintain their natural distribution and abundance. This includes the following:

- Mapping species distribution in the park.
- Determining numbers of individuals, threats to the species, source of threats, and population condition and trends.
- Pursuing conservation through the management of species and their habitats. Determine management actions through the park management planning process and in consultation with concerned and knowledgeable parties. Ensure consideration of such species in all park planning and NEPA documents.
- Integrating to the fullest extent possible, park management actions with

- other federal, state, and private entities.
- Restoring native species to their historic ranges when feasible and where suitable habitat exists or can be restored.
- Coordinating management and monitoring programs with other federal and state agencies and adjacent private landowners where habitat and species management is critical to the conservation of these species.

d. Priorities for Management.

The primary objective of conservation actions on federally listed, state listed, locally listed, rare, and sensitive species is to prevent the extinction of species. In most instances, species that are most at risk of extinction are federally listed endangered species. Consequently, federally listed species will usually have the highest priority for management. This means that NPS will:

- Consider federally listed, proposed, and candidate species, state and locally listed species, and rare or sensitive species for special management and planning consideration.
- Assess the management needs of species based on their risk of extinction.
- Commit resources to inventory, monitor, restore, and manage these species in order to prevent extinctions.

As a result, NPS will generally meet its high priority management responsibilities to federally listed species first and then address state and locally listed species or sensitive and rare species.

e. Key Provisions of the ESA.

Section 4 of the ESA outlines procedures for determining that species are endangered or threatened, designating critical habitat, and developing recovery plans. The section provides for special rules to regulate the taking of threatened species. These rules apply only to threatened species and only if the allowed take would be consistent with the purposes and goals of the ESA.

Section 7 of the ESA outlines procedures for interagency cooperation to conserve federally listed species and designated critical habitat through consultation. Federal agencies are required to further the conservation of listed species and to consult with the FWS/NMFS to ensure that they are not undertaking, funding, permitting, or authorizing actions likely to jeopardize the continued existence of listed species, proposed species, or destroy or adversely modify designated or proposed critical habitat. Section 7 includes procedures for informal and formal consultations and conferences.

Section 9 of the ESA details those actions that are prohibited or restricted by law.

Section 10 of the ESA provides for permitted taking: recovery permits (e.g., scientific research permits), enhancement of survival permits, and incidental take permits associated with Habitat Conservation Plans on non-federal lands. These permits are issued by the FWS/NMFS. The FWS/NMFS can issue permits to take listed species for scientific purposes that contribute to recovery or to enhance the propagation or survival of listed species. The FWS/NMFS can also issue permits to take listed species incidental to otherwise legal activity.

f. Consultation under Section 7 of the ESA.

General: Park management must consult with the FWS/NMFS pursuant to Section 7 of the ESA on any existing or proposed park activities or programs that have the potential to affect a federally listed species or designated critical habitat. Section 7 consultation applies to all actions authorized, funded, or carried out by federal agencies. Appendix A outlines NPS actions required under the ESA. Flowcharts in Appendices B, C, and D display consultation and conferencing processes in more detail.

Management must review NPS actions to determine if consultation is required and if it is required, NPS must complete the appropriate consultation (informal or formal). As examples, the following types of actions should be reviewed to determine if they may affect listed species or critical habitat:

- NPS projects (e.g., construction, prescribed fires, restoration projects, road maintenance)
- NPS planning documents that establish management direction (e.g., Resource Management Plans, Fire Management Plans, transportation management plans, aerial tour operations plans, livestock management plans)
- Plans of Operations for oil and gas leases
- Projects that involve NPS approval (Rights-of-way access; distribution of oral rabies vaccines, spraying for mosquitoes to reduce the incidence of West Nile virus)
- Special Use Permits (e.g., filming permits, grazing permits, large bike races)
- Right-of-way Permits (e.g., telecommunications towers, highways, powerlines, or access to in-holdings)
- Concession activities (e.g., boat tours in manatee areas)
- NPS-issued Scientific Research and Collection permits on endangered species do not generally require consultation because FWS/NMFS must issue their own permit (which they consult on) before the NPS Scientific Research and Collection Permit is valid. However, if an NPS permit is requested on a non-listed species, consultation may be required by NPS if the research or collection will involve incidental effects on listed species (e.g., if research on fire effects impacts listed species).

Formal and informal contacts should be maintained with endangered species coordinators from other federal and state agencies. Early consultation with FWS/NMFS before projects designs are locked in will reduce unnecessary delays later during formal or informal consultation. Integrating consultation into the NEPA documentation process may also simplify the approval process for projects.

Consultation will generally involve the following actions:

- NPS requesting that FWS/NMFS provide a list of species and critical habitat found in the project area.
- NPS determining that the project has “no effect” or that it “may affect” listed species or critical habitat.
- NPS determinations of “no effect” should be documented and provided to FWS/NMFS.
- NPS determination that a project which “may affect” a listed species or critical habitat is either:
 - “Not likely to adversely affect” a listed species (e.g., it is a beneficial or neutral action) or critical habitat or
 - “Likely to adversely affect” a listed species or critical habitat.
- NPS request to FWS/NMFS for concurrence on a “not likely to adversely affect” determination.
- NPS prepares and submits a biological assessment when a project is “likely to adversely affect” a species or critical habitat. At NPS discretion, we may also prepare a biological assessment when a “may effect” determination is first made in order to help determine if the action is “likely to adversely affect.”
- NPS receives the biological opinion issued by FWS/NMFS and implements any reasonable and prudent measures or terms and conditions stipulated.

Species/habitats requiring consultation: NPS undertakes consultation on all federally listed species with endangered, threatened, or experimental population designations. Consultation is also conducted for designated critical habitat. Species listed under the ESA due to their similarity of appearance to a biologically threatened or endangered species are protected by prohibitions on “take”, but they are not afforded protection under section 7. Consultation is not conducted on species listed due to similarity of appearance. Consultation is also not conducted for areas identified as “essential habitat” for recovery purposes.

Species/habitats requiring conferencing: The consultation process is properly called a "conference" if it deals with species that are proposed for listing as endangered, threatened, or experimental. Conferencing is also undertaken for proposed critical habitat. Conferencing is not conducted on species proposed for listing due to similarity of appearance or for areas identified as “essential habitat” for recovery purposes.

Informal Consultation: To begin the informal consultation process, the NPS submits a letter to the FWS/NMFS to determine if listed species or critical habitats are present in or near the project area. The FWS/NMFS will respond within 30 days when possible.

If there are no threatened or endangered species or designated critical habitat then NPS may determine that an action will have “no effect” on any listed species or critical habitat and the informal consultation process ends. This information is documented, and the project proceeds. NEPA compliance may still be required.

The informal consultation process is designed to help the NPS determine whether formal consultation is required. Through the informal process, the FWS/NMFS may suggest modifications to the proposed action that will ensure that NPS will not adversely affect the listed species or designated critical habitat. If through informal consultation, NPS determines, with written concurrence from the FWS/NMFS, that the proposed action “is not likely to adversely affect” then the consultation process is concluded. The key element to resolving consultations informally is that there must be no adverse effect to any listed individuals or to designated critical habitat. Projects that ultimately provide a net benefit, but have short-term adverse consequences do not qualify for a “not likely to adversely affect” determination.

If NPS determines that there is a “may affect” and that the action is “likely to adversely affect species or critical habitat” then the process moves to a formal consultation.

Formal Consultation: The formal process begins when it is determined that the proposed action “is likely to adversely affect” an endangered or threatened species or its designated critical habitat. In this situation, or if the project requires an environmental impact statement as in the case of major construction activities, NPS must prepare a biological assessment. The NPS has 180 days to complete a biological assessment once NPS has received the species list from FWS/NMFS. The biological assessment determines whether a proposed action is likely to adversely affect listed species or designated critical habitat. While the content of the biological assessment is at the discretion of the NPS, FWS/NMFS provide suggestions in 50 CFR 402.12. Appendix E provides additional information on biological assessments and biological opinions.

If a biological assessment is required, formal consultation cannot be initiated until the biological assessment is completed. NPS initiates formal consultation through a written request to the FWS/NMFS. The FWS/NMFS will provide a response that confirms initiation of formal consultation or requests further information.

The FWS/NMFS concludes formal consultation within 90 days of receiving the

biological assessment, and then has 45 days to deliver the biological opinion to NPS. The biological opinion details whether the proposed action is likely to jeopardize the continued existence of the species or result in the destruction or adverse modification of critical habitat. If the FWS/NMFS decision is that there is "no jeopardy," then the project may go forward, but should incorporate any minor changes required by the "Reasonable and Prudent Measures and terms and conditions" of the incidental take statement included with the biological opinion.

If the biological opinion is that the action is likely to jeopardize the species or adversely modify critical habitat (i.e., a "jeopardy opinion"), then the biological opinion must also suggest "reasonable and prudent alternatives" which, when implemented, will avoid jeopardizing the continued existence of the endangered or threatened species or avoid adversely modifying the critical habitat of such species.

NPS projects should avoid impacts that jeopardize listed species or result in adverse modification of critical habitat. However, if a park receives a biological opinion with a finding of jeopardy or adverse modification, the park Superintendent must notify the Regional Director, who must contact the Associate Director, Natural Resources Stewardship and Science. The FWS or NMFS must be notified of the NPS' final decision on any proposed action that receives a biological opinion with a finding of jeopardy or adverse modification. The Associate Director, Natural Resources Stewardship and Science, must be involved in the preparation of such notification.

Incidental Take Statements: The FWS/NMFS includes an incidental take statement in its biological opinion, if any take is expected. The incidental take statement provides for legal, permitted take. In order to be considered in an incidental take statement, any taking associated with an agency's action must meet the following criteria:

- The take is not likely to jeopardize the continued existence of listed species or destroy or adversely modify designated critical habitat.
- The take results from an otherwise lawful activity.
- The take is incidental to the purpose of the action.

Section 9 of the ESA prohibits the take of endangered species. The incidental take statement in a biological opinion issued by FWS/NMFS provides the NPS with an exemption from the taking prohibitions of Section 9 when clear compliance with the implementing terms and conditions is demonstrated; otherwise, the agency is in violation of Section 9 of the ESA. The incidental take statement also provides "reasonable and prudent measures" and conservation recommendations to minimize adverse effects or incidental take. Reasonable and prudent measures, with their specific terms and conditions, are binding, non-discretionary actions that NPS should undertake in order to minimize and avoid unnecessary take. Frequently, terms and conditions will require NPS to monitor the extent of take and report this

take in a timely manner to FWS/NMFS. Reasonable and prudent measures (and terms and conditions) minimize impacts on specific individuals or habitats, they can cause only “minor” changes to the project, and they should not require mitigation of impacts. Conservation recommendations are voluntary actions that NPS could take to further minimize or avoid take. See the Definitions section for additional information.

Timeframes for Consultation: Formal consultation has a number of administrative timeframes that are intended to ensure federal agencies (like NPS) and formal applicants receive thorough, but prompt review of their actions. Key timeframes are discussed below:

- *Species List Requests.* FWS/NMFS has 30 calendar days to respond to an NPS request for a list of species/critical habitat in the action area or to concur with a list provided by NPS.
- *Validity of Species Lists.* FWS/NMFS species lists or concurrence with NPS lists are not valid indefinitely. They generally should be updated after 90 days and must not be relied upon if preparation of any biological assessment takes more than 180 days.
- *Preparation of a Biological Assessment.* NPS should submit biological assessments on major construction projects within 180 days of having an agreed upon species list.
- *Rejection of a Biological Assessment.* FWS/NMFS have 30 days to review an NPS biological assessment with accompanying initiation letter and reject it because it lacks sufficient information. If the biological assessment is not rejected, the 30 days counts towards the FWS/NMFS total of 90 days to prepare a biological opinion.
- *Preparation of the Biological Opinion.* Upon submission of a complete initiation package, the NPS, any applicant, and the FWS/NMFS have 90-days to consult on the effects of the action, any modifications that might avoid or minimize impacts, and any modifications that would serve as reasonable and prudent alternatives to avoid jeopardy or adverse modification of critical habitat. This timeframe may be extended by mutual agreement of the agencies (extensions of 60 days or greater must have the approval of any applicant).
- *Review of Draft Biological Opinion.* Upon completion of consultation, the FWS/NMFS has 45 days to prepare the biological opinion. At the NPS’ request, the FWS/NMFS will provide a draft biological opinion. NPS needs to provide comments to FWS/NMFS within 35 days or FWS/NMFS may extend the completion of the opinion past the 45-day period.
- *Total Cumulative Time to Produce Biological Opinion.* Unless agreed to be NPS and FWS/NMFS, a final biological opinion will be provided within 135 days of NPS submitting a valid biological assessment.
- *Timeframes for Formal Applicants.* Consultations involving applicants cannot be extended by NPS and FWS/NMFS more than 60 days without the

consent of the applicant.

Consultation on planning documents (Programmatic Consultations): NPS management documents present a challenge to normal consultation processes because they seldom have sufficient detail for FWS/NMFS to determine the amount of take that will occur. Compliance with the ESA for these documents can be done via programmatic consultations or ecosystem consultations. This type of consultation provides a review of the planning document and assesses general effects on listed species. Because these general planning documents usually lack detailed information on specific impacts, the consultation on the plan may not include an incidental take statement. The park will need to do additional consultations on individual projects proposed within the umbrella of the planning document. However, this “stepped” approach, with a general consultation on a park planning document (e.g., Fire Management Plan or Resource Management Plan) followed by a more detailed consultation on an individual project, can frequently be done more expediently than consultations on numerous individual projects. In addition, programmatic consultations on park plans may set establish the foundation for “streamlined” consultations. Streamlining speeds up the consultation process by bringing FWS/NMFS into project discussions early on and by establishing a set of guidelines for subsequent projects. Projects that are consistent with these guidelines may receive expedited consultation.

Batching of Consultations: The traditional way of consulting on projects is to prepare individual consultations (including biological assessments) on each project and submit them to FWS/NMFS at various times throughout the year. A more efficient way to address multiple projects can be to do a “batch” consultation where a number of projects are submitted at one time. This has the advantage of simplifying the analysis of impacts for multiple projects and makes it easier for FWS/NMFS to process the consultations. Examples of good projects to batch would be all of the prescribed fires planned in the park for the next two years or all of the stream restoration projects planned within a watershed.

Emergency Situations: Section 7 regulations recognize emergency (natural disaster or other calamity) situations that require expedited consultation for actions taken that may affect listed species or critical habitat. The FWS/NMFS is notified and provides advice on measures for minimizing effects of the response. Formal consultation (including the preparation of a biological assessment) begin after the fact followed by issuance of an emergency biological opinion by FWS/NMFS that documents the effects of the emergency response on listed species and/or designated critical habitats. It is important to document discussions with FWS/NMFS and the resulting actions that NPS took during the emergency. This information will need to be included in the biological assessment prepared by NPS (i.e., the emergency biological assessment that is submitted after emergency conditions have abated).

Consultation Involving Non-NPS Permittees or Applicants: In some instances, non-NPS parties are required to apply for NPS permits or require approval of their proposed actions (e.g., drilling for oil and gas resources in certain NPS units). NPS is required to consult with FWS/NMFS on issuance of a discretionary permit or discretionary approval of an action. NPS may formally designate the applicant as a participant in consultation and require the applicant to prepare consultation documents (including a biological assessment). However, NPS retains responsibility for the consultation and for the content of consultation documents. Regardless of who prepares the compliance documentation, the applicant may be held responsible for paying all NPS costs associated with consultation requirements.

Consultations regarding NPS approval or permitting of non-NPS applications must examine the effects of all aspects of the action, even those actions that would occur off NPS lands. For example, approval to allow directional drilling for oil and gas resources from private lands outside the park boundary would have to look at the effects of pad construction on listed species. In such situations, it would be appropriate to require surveys for endangered species (unless such surveys had already been done or there was no suitable habitat for listed species).

The non-NPS applicant is afforded an opportunity to submit information for consideration during consultation, to review and comment on the draft biological opinion, and to discuss the basis of FWS/NMFS determinations in the biological opinion. There are also special “timing” considerations for formal applicants.

Additional Information: For more information concerning Section 7 procedures, consult the FWS Consultation Handbook, contact a FWS/NMFS field office, the NPS Regional Endangered Species Coordinator, or the NPS National Endangered Species Program.

g. Coordination of Recovery Efforts

Endangered, threatened, and candidate species recovery efforts should be coordinated and integrated with other federal and state agencies to ensure that recovery efforts achieve maximum effectiveness and efficiency. The NPS should participate on recovery teams and recovery implementation teams at the park, inventory and monitoring network, or regional level, as appropriate, for those species that occur in units of the National Park System. Participation in cooperative agreements, conservation agreements, interagency agreements, general agreements, and coordination meetings is encouraged and supported if such participation contributes toward reaching recovery objectives. Involvement of non-governmental entities may be appropriate for recovery efforts, but such involvement must comply with the Federal Advisory Committee Act (FACA).

NPS recovery efforts must be conducted in accordance with all appropriate required permits from other government agencies. This includes obtaining recovery permits (e.g., scientific research permits) that authorize direct take of federally listed species (e.g., banding listed birds or collecting genetic samples).

Recovery permits that allow direct take of listed species are required for NPS personnel and can be obtained from FWS/NMFS regional offices (see discussion in III .b. Manipulative Activities).

Recovery activities conducted within parks by individuals or other agencies should be consistent with guidance contained in DO/RM 53 Special Park Uses and DO 20 Agreements when issuing collecting permits or special use permits. National Park Service permits, including Scientific Research and Collection permits will usually be required for park staff (unless exempted by the superintendent), cooperators, other agency staff, and other individuals working in NPS areas.

Parks are encouraged to track and document recovery actions that are completed or undertaken. This information should be used to help FWS/NMFS update recovery plans.

III. PROGRAM GUIDANCE

a. General

A species may be listed by FWS/NMFS as "...an endangered species or a threatened species because of any of the following factors:

- The present or threatened destruction, modification, or curtailment of its habitat or range.
- Overuse for commercial, recreational, scientific, or educational purposes.
- Disease or predation.
- The inadequacy of existing regulatory mechanisms.
- Other natural or manmade factors affecting its continued existence" (ESA, as amended, 16 USC 1533).

Management options must place highest priority on identifying and removing the threat of extinction. Reclassifying the species from endangered to threatened status (partial recovery) and delisting (full recovery) are also key goals.

The ESA makes no distinction between natural and human causes. If a species is endangered or threatened through natural processes, the law still applies. The goal of endangered and threatened species recovery efforts is generally to increase populations and secure sufficient, suitable habitat to "recover" the species to acceptable levels (i.e., pre-decline or some other designated level).

In addition, candidate species are defined by the FWS as those that the FWS has on file sufficient information about biological vulnerability and threats to support a proposal to list as endangered or threatened but for which preparation and publication of a proposal is precluded by higher-priority listing actions. Thus, FWS candidate species meet the ESA's definitions for threatened and endangered. NMFS, which has jurisdiction over marine species and some anadromous species, defines candidate species more broadly to include species whose status is of concern but more information is needed before they can be proposed for listing.

Endangered and threatened species and/or their habitats may need to be actively managed for recovery, not simply preserved through general habitat protection. In some cases if only preservation steps are taken, threatened and endangered species and/or their habitats may continue to decline because non-habitat factors negatively affect survival, reproduction, or recruitment (e.g., diseases or unnatural predation).

Management actions affect the distribution, abundance, health, and ecological relationships of species. Whereas a zoo, botanical garden, or other non-natural refugia may accomplish species preservation, the goal of the National Park Service is the long-term conservation of species and their ecological function as part of a natural ecosystem. In some instances it may not be possible to rely solely on natural events to maintain listed species; in these instances, the NPS will strive to provide as natural an ecosystem as is possible, while still maintaining the listed species. It is important that ecological aspects of management prevail in dealing with threatened and endangered species, and therefore factors limiting the distribution and abundance of the species must be well understood and incorporated into any management action.

When a park or region enters into a recovery program for a threatened or endangered species, a judgment has been made that the species' recovery is of great enough value to warrant (1) exceptional actions in the management of that species, (2) exceptional actions in the management of certain areas of its habitat, and perhaps (3) exceptional actions in the management of associated species. Such exceptional or aggressive actions require thorough planning and documentation through development of a park specific management plan for each listed species. Some actions, though they may be sensitive or controversial, could be critical to the success of the recovery effort. Management actions may result in alteration of habitat, displacement of common native species, modifications of park operations, and restoration of natural ecological forces where necessary to restore a listed or candidate species. If these actions are necessary for the success of a recovery program, they should be regarded as acceptable management alternatives.

Suspension of ongoing recovery efforts by NPS staff should be considered only after a thorough examination of the effects of that suspension on local and regional recovery efforts and after discussion with the FWS/NMFS and regional NPS staff.

Permanent or temporary closures of selected areas are acceptable methods for reducing or eliminating undesirable impacts associated with human use, even if such closures affect visitor use or park operations.

Sensitive information included in any report, such as detailed locations of plants or nest sites may be obscured prior to release of the report to the public. According to the National Parks Omnibus Management Act (1998), "Information concerning the nature and specific location of a National Park System resource which is endangered, threatened, rare, or commercially valuable...may be withheld from the public...unless the Secretary determines that disclosure of the information would further the purposes of the unit of the National Park System in which the resource or object is located and would not create an unreasonable risk of harm, theft, or destruction of the resource or object, including individual organic or inorganic specimens; and disclosure is consistent with other applicable laws protecting the resource or object."

b. Management of Endangered and Threatened Species

Planning: Management actions should be in accordance with FWS/NMFS approved recovery plans. Unless there are unusual circumstances, parks should promote recovery tasks identified in those recovery plans. Park recovery goals and objectives, however, may go beyond those prescribed by the recovery plan. For example, the park objective of maintenance of natural populations may result in park goals of higher population levels or wider distribution than that projected for downlisting or delisting within an area covered by the recovery plan. In these cases, continuing or intensifying park recovery efforts may be appropriate after the goals of the recovery plan have been met.

All endangered and threatened species recovery efforts should be thoroughly evaluated and documented in resource management plans, park files, and appropriate NEPA documents. Communications related to formal and informal consultations must be documented. Potential impacts on endangered and threatened species, their habitats, and recovery efforts, especially impacts resulting from NPS operations, should be considered in all park plans, park development planning, and project reviews. On any proposed project, the FWS/NMFS should be consulted to determine if there are any endangered or threatened species in the area. The highest-priority activities will be the prevention of species extinction or extirpation from the park, protection of suitable or formally designated critical habitats, population and habitat inventory, and monitoring. Special rules that provide for reduced restrictions for some threatened species should be reviewed prior to management actions or

planning efforts (see 50 CFR 17.40-48).

Manipulative Activities: Manipulative activities, such as habitat or species restoration or population augmentation, are encouraged if identified as appropriate in the species recovery plan or if such activities would result in a more representative distribution of the species within the park. In evaluating any manipulative activities, the Superintendent must consider potential impacts on other native species and park operations. If, however, such activities are needed for effective recovery, they should take priority over management of unlisted species and park operations. Significant modification of habitat and landforms to unnatural conditions for recovery purposes is discouraged unless it is necessary to prevent extinction of the species. Manipulative activities may properly displace portions of other native and/or nonnative populations.

Where determined by the FWS/NMFS and the NPS that species restoration or population augmentation programs are desirable, the individuals selected for the restoration should, to the greatest extent possible, be genetically and ecologically representative of park populations. If a species is totally extirpated from a park or region and restoration is determined to be appropriate, managers may use closely related subspecies or varieties for the restoration. Use of a closely related species to restore or augment a listed species should be coordinated with the FWS/NMFS.

Manipulations of habitat may result in the unintentional take of listed species and may require consultation under the ESA and the issuance by FWS/NMFS of an incidental take statement. Such actions may also require NEPA documentation. As previously mentioned, integrating consultation into the NEPA process may simplify efforts.

Manipulations of individual organisms of endangered or threatened species (including non-lethal actions) usually results in the intentional take of listed species. Such intentional take is allowable only with a FWS or NMFS permit. Permits allowing intentional take may be issued by either agency for scientific purposes or for activities that enhance the survival or propagation of the species. Proposed permits must be published (by FWS or NMFS) in the Federal Register and reviewed for 30 days. Therefore, applications must be made well in advance of proposed actions. An NPS employee may aid a sick, injured, or orphaned threatened or endangered animal or care for a damaged or diseased plant for a limited time in an emergency without a permit. In such a situation, the FWS or NMFS and a local licensed wildlife rehabilitator should be contacted as soon as possible.

Collection of individuals for captive propagation programs is appropriate if such activities benefit species conservation and they will not unduly retard recovery efforts within the park. Such collections may be made only after obtaining the appropriate permits from FWS/NMFS. Use of tagging, banding, or other

identification methods should be coordinated with cooperating agencies to ensure consistency and to minimize redundancy with other programs. These actions also require a FWS or NMFS permit.

Problem or Dangerous Animals: Management of individual problem or dangerous animals that are protected under the ESA should be addressed specifically in resource management plans. Provisions for dealing with these individuals should be coordinated with the FWS/NMFS and appropriate state agencies. If removal of individual animals is anticipated, parks and/or regions should develop or encourage the development of interagency protocols for handling such individuals.

Although federal regulations allow any person to "take" endangered or threatened wildlife in defense of human life, park resource management plans should contain strategies that minimize the need for this extreme action to occur. Regulations allow relocation of listed species that are a demonstrable but not immediate threat to human safety provided that it is accomplished in a humane manner. Killing or injuring is allowed only if the animal cannot be captured and released unharmed in a remote area, or presents an immediate threat to human life.

Salvage and Disposition of Dead Specimens: Regions or parks must obtain permits to authorize NPS employees to dispose of dead specimens or salvage them if they are useful for scientific study or as a cultural resource. Dead or collected specimens of listed species may only be retained, disposed of, or salvaged in accordance with directions from the FWS/NMFS. Contact FWS/NMFS regional offices for specific information and procedures.

c. Monitoring.

Inventories and periodic monitoring should be accomplished to provide data to direct and evaluate the success of recovery actions. Monitoring methods should be consistent with the recovery plan and other procedures adopted by the FWS/NMFS for that particular species. The monitoring of listed species should be included in park-wide or network-wide monitoring efforts whenever feasible (e.g., vital signs monitoring).

d. Research

General: Research on endangered and threatened species is encouraged when it provides conservation or management benefits, particularly when such research is identified in approved recovery plans. The NPS should work closely with researchers in order to generate beneficial research with minimal negative impacts on species and ecosystems. As much as possible, this research should be coordinated with other agencies or conducted cooperatively to ensure its effective contribution to the recovery program. Information from NPS-sponsored

inventories, monitoring, and research, and information from research conducted under park permits, should be made broadly available to park managers, the scientific community, and the public, except when legal restrictions and confidentiality considerations apply. To protect threatened, endangered, and rare species from taking, harm, theft, or destruction, the NPS must withhold information about the nature and specific location of such resources. (See General Guidance section and DO 67 Protected Resource Information.)

e. Information and Education

Resource managers should work closely with park interpretive staff to design programs and materials that will enhance visitor appreciation of listed, rare, and sensitive species and encourage their protection. Education about state and federally listed candidate, threatened and endangered, as well as rare species, is encouraged when information released will not adversely affect the species.

Distribution of information on the nature and location of these species could, however, put these species at risk. For example, even if specific locations are not identified, information on narrow site requirements, if combined with easily obtainable information about such sites in the park, could make individuals and populations vulnerable. Therefore, coordination is necessary between park staff that design educational programs and those responsible for the management of listed species. Before such material is released, the NPS must make a specific determination that disclosure of information on the nature and location of rare, threatened, or endangered species would further the purpose of the park and would not result in harm, theft, or destruction of the resource. (See DO-67, Protected Resource Information.)

f. Reporting.

Accurate and timely information on the status of listed species is important to their successful management. At the national level, the National Park Service is required to annually report to FWS on our expenditures related to threatened and endangered species.

Park Resource Managers and Regional Threatened and Endangered Species Coordinators should work together to ensure that accurate information on listed species is reported annually to the National Endangered Species Program Manager. The annual report should include the following information:

- Federally listed, proposed, and candidate species currently found within each park or known historically from the park.
- The overall trend of the species within the park
 - Not at-risk (species if doing fine)
 - At-risk, Improving (species status is improving over time, but still at

- some risk of being lost from the park)
 - At-risk, Stable (species status is stable over time, but still the low numbers of individuals or other threats are such that there is still a risk of being lost from the park)
 - At-risk, Declining (species status is declining over time and there is risk of it being lost from the park)
 - Extirpated (species no longer occurs in the park, but it once did)
 - Unknown (there is not enough information available to place the species in one of the other categories)
- Funds expended on each species within each park.

In addition FWS annually requests information regarding the status of candidate species by publishing the Candidate Notice of Review. Parks can and should provide information when they can.

g. Permits

Section 10(a)(1) of the Endangered Species Act authorizes the Service to issue permits for certain specified purposes that would otherwise be prohibited activities. Section 10(a)(1)(A) authorizes such permits to federal and non-federal entities for scientific research or to enhance the propagation or survival of listed species. Section 10(a)(1)(B) authorizes permits to non-federal entities allowing the taking of listed species incidental to otherwise lawful activities (such as land development, timber harvest, etc.).

The NPS requests permits under Section 10(a)(1)(A) for scientific research or to enhance the propagation or survival of listed species. These latter permits are most commonly issued in connection with captive breeding efforts.

Intentional take includes (but is not limited to) the salvage of dead individuals, the collection of voucher specimens, manipulative research, reintroduction activities, and educational activities on endangered and threatened species. FWS/NMFS regional offices issue permits allowing this type of take.

In addition, NPS Scientific Research and Collection permits will usually be required for park staff (unless exempted by the superintendent), cooperators, other agency staff, and other individuals undertaking research on listed species in NPS areas.

IV. ROLES AND RESPONSIBILITIES

Director of the National Park Service establishes and approves service-wide natural resource policies and standards that provide for the appropriate management of endangered, threatened, and rare species.

Associate Director, Natural Resource Stewardship and Science (ADNRSS), has functional authority for developing policies and standards for the Director's approval, ADNRSS will:

- Provide direction and leadership to NPS endangered species policies and programs.
- Assist in the preparation of NPS responses to FWS/NMFS determinations of jeopardy or adverse modification.

National Endangered Species Program Manager in the Biological Resource Management Division under the ADNRSS exercises the Associate Director's responsibility by administering the Endangered Species Program. The National Endangered Species *Program Manager* will:

- Coordinate with FWS/NMFS on listing, recovery, and consultation issues.
- Provide direction, interpretation, and advice on new or amended legislation and Departmental directives.
- Develop service-wide policy, regulations, and guidance related to this program;
- Provide information on listing, recovery, consultation, policies, and key issues to NPS regions.
- Compile an annual report on the status of listed species in the NPS system and on NPS funds expended service-wide for listed species.

Regional Director, through or with the assistance of an Assistant or Associate Regional Director, ensures that Endangered, Threatened, and Rare Species Management Programs within the region are uniformly implemented in compliance with the ESA, NEPA, and all related directives and policies. The Regional Director will ensure consideration of listed, candidate, rare, and sensitive species in review of other agency plans and NEPA documents; support participation of NPS personnel on listed species recovery teams and recovery implementation teams; and identify regional threatened and endangered species coordinators to serve as liaison with the Washington Office coordinator. The Regional Director will also ensure submission of the annual report on endangered species from the region. Finally, the Regional Director will notify the Associate Director, Natural Resource Stewardship and Science of draft or final Biological Opinions that jeopardize the continued existence of any listed species or adversely modify critical habitat.

Regional Threatened and Endangered Species Coordinator assists the Regional Director with endangered species programs. The coordinator will:

- Provide program advice to the Regional Director.
- Provide information on listing, recovery, consultation, policies, and key issues to parks.
- Assist parks in meeting assigned recovery plan tasks.
- Participate on recovery teams or recovery implementation teams.
- Coordinate multi-park and, in some cases, individual-park research and

- monitoring activities on listed species.
- Prepare an annual report on threatened and endangered species activities. The annual report will include species status, funds expended, and other pertinent information.

Superintendents are responsible for understanding the park's natural resources and their condition. The Superintendent is responsible for establishing and managing park natural resource programs that effectively address endangered, threatened, and rare species; and for ensuring that all park programs comply with relevant directives, policies, and laws. Specifically, the Superintendent will adhere to the ESA and NEPA by ensuring that park operations, including special use permits, concessions operations, and other contractors, do not result in prohibited take; or adversely affect listed, candidate, rare, and sensitive species, their habitats, or recovery efforts within the park. The Superintendent will also ensure consideration of these species in all park plans and NEPA documents and integrate park management actions with those of other federal and state agencies. The Superintendent will initiate and ensure proper consultation with FWS/NMFS as required. Specifically, the Superintendent will:

- Request species lists from FWS/NMFS for projects and planning documents.
- Make “no effect” or “may affect” determinations.
- Request concurrence letters from FWS/NMFS for “no effect” determinations.
- Submit biological assessments to FWS/NMFS.
- Implement required “reasonable and prudent measures” and “terms and conditions” of the FWS/NMFS biological opinion.
- Document any actual take that occurs and track cumulative take for species.
- Notify the Regional Director of draft or final biological opinions that jeopardize the continued existence of any listed species or adversely modify critical habitat.

Park Natural Resource Managers, or other designees of the Superintendent, will carry out needs assessments and planning and conduct endangered, threatened, and rare species management activities in compliance with applicable directives, policies, and laws such as the ESA and NEPA. The Park Natural Resource Manager shall coordinate or direct recovery activities in the park according to recovery plans and is responsible for monitoring listed species' status on park lands. The resource manager may participate on listed species recovery teams or recovery implementation teams. In addition, the resource manager will:

- Record listed species concerns and activities in the park's resource management plan and NEPA documents.
- Maintain appropriate scientific and management contacts with other federal, state, and private agencies and organizations.
- Document and track take of listed species.
- Determine the status of federally listed species within the park and report that status to Regional Office staff for inclusion in their annual report.
- Review other agency/organization plans and environmental documents to assess potential impacts on listed species.

V. DEFINITIONS

Applicant: refers to any person, corporation, associate, private entity, or state that has applied for a permit, license, or approval for an action with NPS. NPS can formally designate an applicant for consultation purposes. Formal applicants are afforded certain benefits under the consultation process.

Biological Assessment (BA): A biological assessment is information prepared by the action agency, such as the NPS, to determine whether the action they propose is likely to (1) adversely affect listed species or designated critical habitat, (2) jeopardize the continued existence of species that are proposed for listing or adversely modify proposed critical habitat, or (3) adversely modify proposed critical habitat. Note that a BA is not required for conferences on proposed species or proposed critical habitat. The NPS may, at its discretion, complete a BA for formal conferencing. The outcome of the biological assessment determines whether formal consultation is necessary.

Biological Opinion (BO): A biological opinion is a document prepared by FWS or NMFS that includes (1) the opinion as to whether or not the NPS action is likely to jeopardize the continued existence of listed or proposed species or result in the destruction or adverse modification of designated or proposed critical habitat, (2) a summary of the information on which the opinion is based and a detailed discussion of the effect of the action on listed species and designated critical habitat, and (3) as appropriate, any terms and conditions to minimize effects of the action or reasonable and prudent alternatives to the action.

Candidate Species: Candidate species are those plant and animal species for which FWS has sufficient information on the biological status and threats to propose the species for listing as endangered or threatened under the ESA (however, the species have not yet had a proposed rule published in the Federal Register). An annual notice of review prepared by the FWS/NMFS and published in the Federal Register provides an updated list of candidate and proposed species and solicits new information on the biology, status, and distribution of these species that could result in a reevaluation of the species status. The purpose of FWS' Candidate Notice of Review is to add new candidates to the list; monitor existing candidate species; review petition findings on previously petitioned species for which we determined listing was warranted but precluded by higher priority listing actions; and provide the public an opportunity to comment on new, continuing, and removed candidate species. NMFS, which has jurisdiction over marine species and some anadromous species, defines candidate species more broadly to include species whose status is of concern, but more information is needed before they can be proposed for listing. See also Proposed Species.

Conference: For proposed species, a conference or conferencing is a process of early interagency cooperation involving informal or formal discussions between federal agencies and the FWS/NMFS. Conferences are legally required for proposed federal actions likely to

jeopardize proposed species or destroy or adversely modify proposed critical habitat. A conference allows for potential conflicts between an action and species conservation to be identified and resolved through development of recommendations to minimize or avoid adverse affects, and result in conservation recommendations. Biological opinions on proposed species are not legally binding. However, once the species is officially listed, the opinion becomes legally binding. A Biological Assessment is not required for conferences, but may be prepared at the discretion of the NPS. See Proposed Species, Proposed Critical Habitat, and Section 7.

Conservation Recommendations: Conservation recommendations are the FWS or NMFS non-binding suggestions resulting from formal or informal consultation that (1) identify discretionary measures a federal agency can take to minimize or avoid the adverse affects of a proposed action on listed or proposed species or designated or proposed critical habitat; (2) identify studies, monitoring, or research to develop new information on listed or proposed species, or designated or proposed critical habitat; and (3) include suggestions on how an action agency can assist species conservation as part of their action and in furtherance of their authorities under Section 7(a)(1) of the Act. See Formal Consultation and Informal Consultation.

Consultation, Formal: A formal consultation is a process between the FWS/NMFS and a federal agency or applicant that determines whether a proposed federal action is likely to jeopardize the continued existence of listed species or destroy or adversely modify designated critical habitat. The process begins with a written request from the NPS to the FWS/NMFS to consult and submittal of a complete initiation package and concludes with the issuance of a biological opinion and incidental take statement from the FWS/NMFS. The biological opinion states whether or not a federal action is likely to jeopardize the continued existence of listed species, or result in the destruction or adverse modification of designated critical habitat and makes recommendations (reasonable and prudent measures or alternatives) that could avoid adverse affects.

Consultation, Informal: An informal consultation is a process that includes all discussions and correspondence between the FWS/NMFS and federal agencies prior to formal consultation in order to determine whether a proposed federal action may affect listed species or critical habitat. If a proposed federal action may adversely affect a listed species or designated critical habitat, formal consultation is required. Informal consultation allows use of FWS/NMFS expertise in determining possible effects and seeks modifications of proposed actions to avoid potentially adverse affects.

Critical Habitat: For listed species, critical habitat consists of "(i) the specific areas within the geographical area occupied by the species...on which are found those physical or biological features (constituent elements) (I) essential to the conservation of the species and (II) which may require special management considerations or protection; and (ii) specific areas outside the geographical area occupied by the species...upon a determination by the Secretary that such areas are essential for the conservation of the species." Provisions for

formally listing critical habitats are identified in Section 4 of the ESA. Formally designated critical habitats are described in 50 CFR Section 17.95 and 96.

Cumulative Effects: Those effects of future state or private activities, not involving federal activities, that are reasonably certain to occur within the action area of the federal action under consultation.

Decision or Finding: "Is likely to adversely affect" is the appropriate finding in a biological assessment (or conclusion during informal consultation) if any adverse effect to listed species may occur as a direct or indirect result of the proposed action or its interrelated or interdependent actions, and the effect is not discountable, insignificant, or beneficial (see definition of "is not likely to adversely affect"). In the event that the overall effect of the proposed action is beneficial to the listed species, but is also likely to cause some adverse effects, then the proposed action "is likely to adversely affect" the listed species. If incidental take is anticipated to occur as a result of the proposed action, an "is likely to adversely affect" determination should be made. An "is likely to adversely affect" determination requires the initiation of formal Section 7 consultation.

"Is likely to jeopardize proposed species/adversely modify proposed critical habitat" is the appropriate conclusion when the action agency or FWS/NMFS identify situations where the proposed action is likely to jeopardize the proposed species or adversely modify the proposed critical habitat. If this conclusion is reached, conference is required.

"Is not likely to adversely affect" is the appropriate conclusion when effects on listed species are expected to be discountable, insignificant, or completely beneficial. Beneficial effects are contemporaneous positive effects without any adverse effects to the species. Insignificant effects relate to the size of the impact and should never reach the scale where take occurs. Discountable effects are those extremely unlikely to occur. Based on best judgment, a person would not be able to meaningfully measure, detect, or evaluate insignificant effects; or expect discountable effects to occur.

Distinct Population Segment: A Distinct Population Segment is a population, or group of populations of a vertebrate organism that is discrete from other populations and significant to the biological species as a whole. A population is considered discrete, according to federal regulations, if it is markedly separated from other populations of the same taxon as a consequence of physical, physiological, ecological or behavioral factors.

Effects:

- No effect – proposed action will not affect listed or proposed species or critical habitat.
 - Beneficial effects – are contemporaneous positive effects without any adverse effects
 - Insignificant effects – are related to the size of the impact and should never reach the scale where take occurs (a person would not be able to

- meaningfully measure, detect, or evaluate such effects)
- Discountable effects – are extremely unlikely to occur
 - o May affect – when the proposed action has meaningful or measurable effects, that can be either beneficial or negative.
 - o Is not likely to adversely affect – when the proposed action has discountable, insignificant, or completely beneficial effects.
 - o Is likely to adversely affect – when the proposed action has at least some meaningful or measurable effects that are adverse or negative on listed species. If the project has an overall beneficial effect on listed species, but some adverse affect, the action is still categorized as “likely to adversely affect” and formal consultation is required.

Endangered Species: An endangered species is "...any species which is in danger of extinction throughout all or a significant portion of its range..." and has been designated as such by FWS/NMFS through rulemaking.

Essential Habitat: Habitat identified by FWS/NMFS recovery efforts as areas needed for the recovery of a listed species. Essential Habitat does not receive any protection under the ESA, but it is used as a planning tool by FWS/NMFS and others to focus recovery efforts.

Evolutionarily Significant Unit: A NMFS designation used to denote a distinct population segment that is a distinctive group within a species that is uniquely adapted to a particularly area or environment. Usually used for Pacific salmon, steelhead, or sea-run cutthroat trout in the Pacific Northwest.

Experimental Populations: An experimental populations is any population of a federally listed species (including any progeny arising solely from members of that population) artificially established outside the current range of the species but within probable historical habitat in order to further the listed species' conservation under section 10(j) of the ESA. An “essential experimental population” is a reintroduced population whose loss would be likely to appreciably reduce the likelihood of the survival of the species in the wild. A “nonessential experimental population” is a reintroduced population whose loss would not be likely to appreciably reduce the likelihood of survival of the species in the wild. Critical habitat may be designated for essential experimental populations but not for nonessential experimental populations. Any essential or nonessential experimental population located within an NPS unit is treated as a threatened species. As a threatened species, special rules or regulatory “taking” (see Section 4) may be promulgated and the standard procedures for Section 7 consultation apply.

Incidental Take: Take of listed species that results from, but is not the purpose of, carrying out an otherwise lawful activity conducted by a federal agency.

Major Construction Activity: A construction project (or other undertaking) which is a major federal action significantly affecting the quality of the human environment as referred

to under NEPA.

Proposed Critical Habitat: Proposed critical habitat is proposed in the Federal Register to be designated as critical habitat or habitat proposed to be added to an existing critical habitat designation under Section 4 of the ESA. Federal agencies must confer with the FWS/NMFS when actions are likely to destroy or adversely modify proposed critical habitat. (See Conference).

Proposed Species: A proposed species is any species of fish, wildlife, or plant that is proposed in the Federal Register to be listed under Section 4 of the ESA. Federal agencies must confer with the FWS/NMFS when actions may jeopardize proposed species. (See Conference.)

Rare Species: A rare species is any species of fish, wildlife, or plant where all or a significant portion of its range has become restricted or limited. This designation does not necessarily imply that populations of the species are significantly reduced or threatened with reduction. No legally required federal protection is associated with this designation.

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

Reasonable and Prudent Measures: These measures are actions the FWS/NMFS believes are necessary or appropriate to minimize impacts on individuals or habitat in the project area (i.e., amount or extent of incidental take).

Recovery: Recovery is the process by which the decline of an endangered or threatened species is arrested or reversed, and threats are neutralized so that the species survival in the wild is ensured and protection under the ESA is no longer necessary. As endangered populations recover, they are downlisted from endangered to threatened and subsequently delisted if recovery continues. Listed populations are delisted at full recovery; however, such populations are monitored for at least an additional five years.

Recovery Plan: According to provisions of Section 4 of the ESA, a recovery plan is approved by the FWS/NMFS and implemented for each listed species unless a plan would not contribute to a species' conservation. The plan describes the specific tasks necessary, including the estimated cost and time involved, to restore the threatened or endangered species to recovered status. Recovery plans provide a blueprint for private, federal, and state cooperation in the conservation of the species and their ecosystems. Plan implementation is overseen by the FWS/NMFS. The implementation schedule within each

plan identifies the roles and responsibilities of various federal and state agencies in carrying out the actions necessary to restore the species to a secure condition.

Section 4, Determination of Endangered Species and Threatened Species: Section 4 of the ESA outlines procedures for determining that species are endangered or threatened, for designating critical habitat, and for developing recovery plans. The section also provides special rules to regulate the taking of threatened species. These special rules apply only to threatened species and then only if the allowed take would be consistent with the purposes and goals of the ESA.

Section 7, Interagency Cooperation: Section 7 of the ESA outlines procedures for interagency cooperation to conserve federally listed species and designated critical habitats through consultation. Federal agencies are required to further the conservation of listed species and to consult with the FWS/NMFS to ensure that they are not undertaking, funding, permitting, or authorizing actions likely to jeopardize the continued existence of listed species, proposed species, or destroy or adversely modify designated or proposed critical habitat. Section 7 includes procedures for informal and formal consultations and conferences.

Section 9, Prohibited Acts: Section 9 of the ESA details those actions that are prohibited or restricted by law.

Section 10, Section 10 of the ESA provides for permitted taking: recovery permits (e.g., scientific research permits), enhancement of survival permits, and incidental take permits in association with Habitat Conservation Plans on non-federal lands. These permits are issued by the FWS/NMFS. The FWS/NMFS can issue permits to take listed species for scientific purposes or to enhance the propagation or survival of listed species. The FWS/NMFS can also issue permits to take listed species incidental to otherwise legal activity.

Sensitive Species: A sensitive species is any native species of “special concern” or “at risk” whose population characteristics warrant special management or intensive monitoring. Considerations may include the following:

- Local rarity.
- Whether or not the species is endemic to the park or local vicinity.
- The importance of the species to the park, as identified in park management objectives.
- Whether the species is the subject of political concern or unusual public interest.
- The vulnerability of the species to local population declines.
- Whether the species or its habitat is subject to human disturbance during critical periods of its life cycle.

Similarity of Appearance Species: Any species determined by FWS/NMFS to be so similar in appearance to a federally listed threatened or endangered species that differentiation poses significant problems regulating the take of the threatened or endangered species.

Species protected under the ESA because of their similarity of appearance to a listed species have prohibitions on their take, but they do not require consultation under section 7 of the ESA.

Species: Species "...includes any subspecies of fish or wildlife or plants, and any distinct population segment of any species of vertebrate fish or wildlife which interbreeds when mature."

Take or Taking: 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 the FWS/NMFS to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns such as breeding, feeding, and sheltering. Harass is defined by the FWS/NMFS as actions that create the likelihood of injury to listed species to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding, or sheltering. Section 9 of the ESA makes it illegal to "take" endangered species. See Section 4 for regulated taking of threatened species and Section 10 for permitted taking.

Terms and Conditions: Establish the specific methods by which reasonable and prudent measures are to be implemented. For example, they may describe the actions necessary to reduce predation on the listed species or describe monitoring and reporting requirements.

Threatened Species: A threatened species is "...any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range" and has been designated as such by FWS/NMFS through rulemaking.

Appendix A. Required Actions.

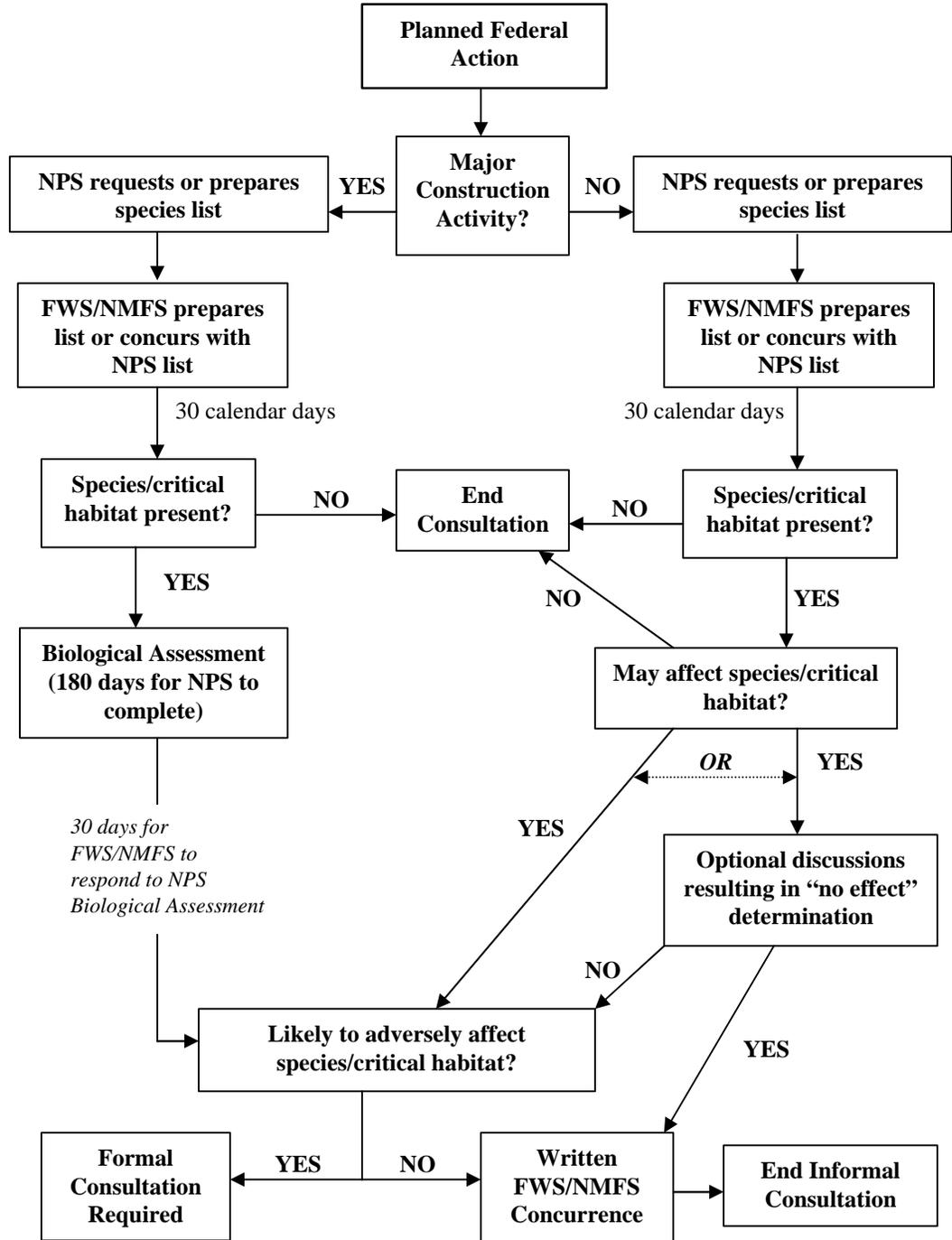
1. Species.

STATUTE	Relevance of Statute to Categories of Species					
	Endangered	Threatened	Experimental	Proposed	Candidate	State Listed
NEPA	X	X	X	X	X	X
ESA	X	X	X	X		
ACTIONS	Actions Appropriate to Categories of Species					
	Endangered	Threatened	Experimental	Proposed	Candidate	State Listed
Document absence/survey	X	X	X	X	X (for NEPA)	X (for NEPA)
Request FWS/NMFS Species List	X	X	X	X	Will usually be provided by FWS	
Review special rules		X				
Determine effect/no effect	X	X	X	X	X (for NEPA)	X (for NEPA)
Informal Consultation	X	X	X			
Informal Conference				X		
Biological Assessment	X	X	X	Optional		
Formal Consultation	X	X	X			
Formal Conference				X		

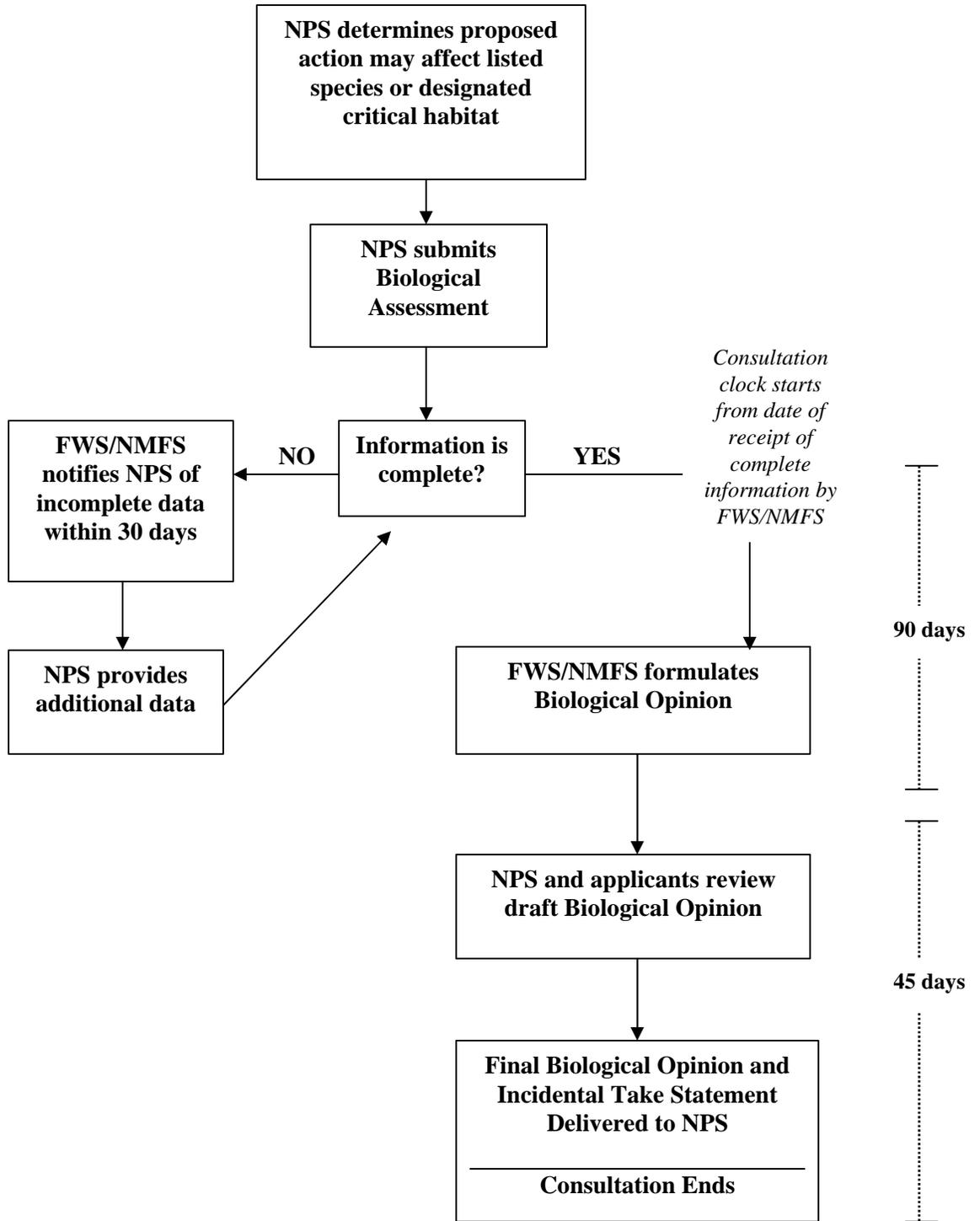
2. Critical Habitat.

STATUTE	Relevance of Statute to Categories of Habitat		
	Designated Critical Habitat	Proposed Critical Habitat	Essential Habitat
NEPA	X	X	X
ESA	X	X	
ACTIONS	Actions Appropriate to Categories of Habitat		
	Designated Critical Habitat	Proposed Critical Habitat	Essential Habitat
Request presence of Critical Habitat from FWS/NMFS	X	X	
Determine effect/no effect	X	X	X (for NEPA)
Informal Consultation	X		
Informal Conference		X	
Biological Assessment	X	Optional	
Formal Consultation	X		
Formal Conference		X	

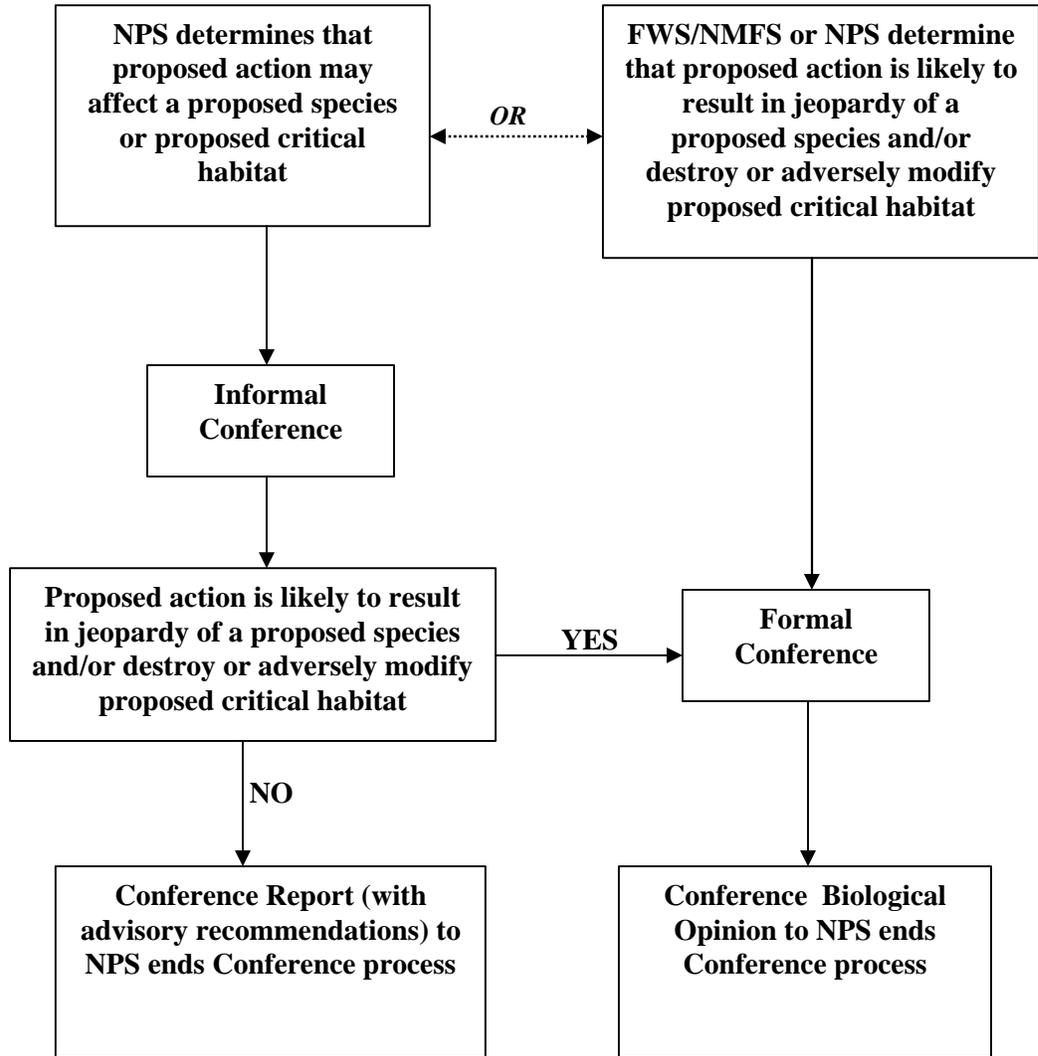
Appendix B. Informal Consultation Process.



Appendix C. Formal Consultation Process.



Appendix D. Conference Process.



Appendix E. Biological Assessments.

The contents of a biological assessment are at the discretion of NPS. However, the NPS biological assessment will be reviewed by FWS/NMFS to determine if needed information (items 1-5 below) has been provided and to determine if the best available scientific and commercial data was used. If FWS/NMFS finds the assessment lacking, it will be returned to NPS for revision. The formal time clock for consultation does not begin until FWS/NMFS agree that all needed information is contained in the biological assessment.

BIOLOGICAL ASSESSMENT:

1. Description of the proposed action.
2. Description of the specific area affected by the proposed action.
3. Description of listed species or critical habitat that may be affected by the action.
4. Description of the potential effects on listed species or critical habitat, to include a discussion of cumulative effects (i.e. future state and private activities). Note that the definition of cumulative effects under the ESA differs from that of NEPA.
5. Relevant reports, surveys, analyses, assessments, or other documents of scientific relevance to the action or the affected species.
6. Topographic map showing the action area (optional).

Since FWS/NMFS will use the biological assessment as the basis for their biological opinion, it is important to know what goes into their opinion. An outline of the opinion and incidental take statement follows.

BIOLOGICAL OPINION:

1. Description of the proposed action.
2. Status of the species/critical habitat.
 - 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
3. Environmental baseline
 - a. Status of the species within the action area
 - b. Factors affecting the species environment within the action area
4. Effects of the action
 - a. Factors to be considered
 - b. Effects analysis of the proposed action
 - c. Species response to the proposed action
5. Cumulative effects
6. Conclusions (is it a jeopardy or non-jeopardy opinion)
7. Reasonable and prudent alternatives (if a jeopardy opinion)

INCIDENTAL TAKE STATEMENT:

1. Introduction
2. Amount or extent of take anticipated as a result of proposed action
3. The effect of take on the species
4. Reasonable and prudent measures (mandatory for NPS to implement)
5. Terms and conditions (mandatory for NPS to implement)
6. Coordination of incidental take statement with other laws and regulations
7. Conference report on any proposed species (if appropriate)
8. Conservation recommendations (voluntary for NPS to implement)
9. Closing statement with details of when NPS must re-initiate consultation
10. Literature Cited