# CHAPTER 3
# PRE-APPLICATION COORDINATION AND HCP DEVELOPMENT

Congress intended the HCP process to be used to reduce conflicts between federally listed species and non-Federal development and land use, and to provide a framework for "creative partnerships" between the public and private sectors in endangered species conservation. Congress also intended the FWS and NMFS to be not just regulators of the HCP program, but active participants in providing technical assistance, and that "comprehensive" HCPs could be developed jointly by the FWS, NMFS, the private sector, and local, state, and Federal agencies, with the Services as a technical advisor (H.R. Rep. No. 97-835, 97th Congress, Second Session).

This chapter discusses the Services' roles in the HCP process during the pre-application and HCP development phase. From a technical standpoint, this involves advising the permit applicant on the biological needs of the species involved, statutory HCP requirements and permit issuance criteria, NEPA requirements, and other technical issues.

The Services also have an important "leadership" role to play in the HCP program, which involves not only technical expertise but attitude and philosophy. Although FWS or NMFS typically do not initiate HCP efforts, they can and should encourage them and once initiated support them to the maximum extent possible. This means being actively involved during HCP development; providing advice on mitigation programs, monitoring measures, and reserve designs; providing timely review of draft documents; helping find solutions to contentious issues; and generally helping bring the HCP together.

## A. Getting Started

Once a private or non-Federal entity (or entities) has decided to obtain a section 10(a)(1)(B) permit the first task that it needs to undertake are determining the appropriate applicant, deciding whether or not to establish a steering committee, and preparing a list of species to be addressed in the HCP.

### 1. Who Can Apply For a Section 10 Permit?

Section 10 permits can be issued to state, municipal, or tribal governments, corporations or businesses, associations, and private individuals. They can also be issued to entities that are a combination of these, such as joint power authorities, watershed councils, and other planning authorities.

The standard method of authorizing take for Federal agencies is through the section 7 consultation process. Actions authorized, funded, or carried out by Federal Agencies must go through the section 7(a)(2) consultation process. There are cases where a Federal agency

is a partner in an HCP, and has a minor, but integral role in the HCP. Examples of these types of HCPs would include HCPs where a Federal agency is involved in a cooperative planning effort in which both Federal and private lands are addressed under a single HCP but the Federal agency is not the applicant or the primary partner in the plan. In these cases, the specific identified actions to be conducted by the Federal agency during the implementation of the HCP should be consulted on as part of the section 7 consultation conducted for the HCP. This allows the Services to conduct one formal consultation that incorporates the actions for the HCP and any specified or identified cooperative Federal action 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.

Before processing a section 10 permit application involving a Federal agency, Service staff should consult with the appropriate Regional Director's or Solicitor's Office (FWS), or the Regional Director's Office or Washington, D.C. Office of Protected Resources Office (NMFS).

2. Determining the Appropriate Applicant.

The first step is to determine who the applicant is who ultimately will hold the permit. In many cases this is relatively straightforward--the applicant is the land or other natural resource owner who proposes the project or activity and is responsible for implementing the HCP.

In regional HCPs, the plan often relies upon local or regional authorities to implement the plan and regulate the taking of listed species addressed in the plan. The permittee must therefore be capable of overseeing HCP implementation and have the authority to regulate the activities covered by the permit. For large-scale planning efforts involving only one or two landowners or types of activities, the landowners themselves are usually the appropriate permittee. For planning efforts involving numerous property owners and activities, the permittee is usually a local public agency--e.g., a city or county government or several local agencies acting jointly. In other cases, a state agency may obtain and hold a section 10 permit for certain types of state-regulated private activities (e.g., forestry activities).

When no government agency is available or interested in assuming the responsibility for an HCP, private groups wishing to obtain a permit for large-scale or multi-faceted projects may initiate an HCP without government involvement. They may, for example, form a consortium to develop the HCP, in which case the consortium would be the permittee. Or, they may jointly fund development of the HCP but maintain their individual identities by applying for separate permits, using the same HCP or individual HCPs modified from a

jointly-developed "template." Either approach is acceptable so long as the permittees have the authority to regulate or control all or applicable parts of the HCP program and the conditions of the HCP are enforceable.

3. Steering Committees.

An HCP "steering committee" is a group of persons who represent affected interests in a broad-scale HCP planning area and generally oversee HCP progress and development. Steering committees are not required by law and the Services do not require them, although they have proven useful to applicants in a variety of HCP settings. However, the Services cannot be the entities which establish them without compliance with the Federal Advisory Committee Act. It is important to remember that a steering committee's purpose is to advise the applicant in the development of the HCP, not to advise the Service on permit issuance.

The steering committee approach may not be appropriate for all situations. For some applicants, it may be too formal or complicated, or they may view it as giving "outside interests" too much access to proprietary data involving private lands. If this is the case during the pre-application phase, the Services should encourage the applicant to provide opportunities to brief or inform representatives of interested parties of key elements or issues to be addressed in the proposed HCP. This can be accomplished in several ways, such as formal or informal meetings, newsletters, etc.

When used in the HCP process, steering committees are usually appointed by the permit applicant and can fulfill several roles--they can assist the applicant in determining the scope of the HCP (size of the planning area, activities to include, etc.), help develop the mitigation program and other HCP conditions, provide a forum for public discourse and reconciling conflicts, and help meet public disclosure requirements. Steering committees are particularly useful in regional HCPs, especially those in which the prospective permittee is a state or local government agency, and are recommended for these types of HCP efforts. However, they are generally not utilized for low-effect HCPs or most single landowner projects.

Ideally, a steering committee should include representatives from the applicant; state agencies with statutory authority for endangered species; state or Federal agencies with responsibility for managing public lands within or near the HCP area (including other Service program areas such as the FWS's Refuges Division); tribal interests where applicable; affected industries and landowners (especially those with known or possible endangered species habitats); and other civic or non-profit groups or conservation organizations with an interest in the outcome of the HCP process.

For regional HCPs it is not practical to include every affected landowner or interest group on the steering committee. Instead, industry groups should be encouraged to assign a professional or trade organization to the committee to represent them--e.g., a farm bureau, cattlemen's association, or building industry association--though corporations with extensive

land holdings in the plan area may want to represent themselves. The steering committee needs to be representative, but its size must be manageable.

Another way to control numbers of participants in the HCP process is by using sub-committees. Sub-committees act as small working groups on behalf of the main committee and are an excellent means of addressing specific issues and developing specific components of the HCP. Sub-committees are more efficient than the larger steering committee for conducting certain tasks and generally help move the HCP process forward.

Prior to initiating an HCP effort, the newly-appointed steering committee may elect to develop a Memorandum of Understanding (MOU) or similar document to record "up front" the goals of the HCP, the composition of the committee, expectations of HCP participants, and other information unique to the locality or defined by the committee. Appendix 3 shows the MOU developed by participants of the Kern County, California HCP.

The question of whether to establish a steering committee may be difficult for non-governmental applicants. State or local governments typically embrace the steering committee idea early in the process because of their desire to obtain consensus from the community. On the other hand, private landowner applicants may feel that creation of a steering committee will lead to confrontation or the intrusion of outside interests into proprietary or sensitive economic matters. However, applicants should be aware of the potential benefits of a steering committee. These include identification and resolution of issues before they cause delays later in the process, development of an HCP that enjoys greater support in the community, and the cooperation of agencies or private conservation organizations that may be needed to help implement the conservation program. Permit applicants ultimately must weigh the risks of establishing or not establishing a steering committee with the expected benefits.

For large-scale or regional HCPs, one of the main functions of the steering committee is to build consensus among diverse organizations and interests, so it is important to promote good working relationships among committee participants. This does not mean that reaching agreement in complex HCP efforts will be easy! Often it is not. However, development of the HCP will be most effective when all interests in the community are represented in steering committee activities and their views and needs are given a fair hearing. A few suggestions:

- Steering committee meetings should be open to the public. This allows interested persons who do not actually sit on the committee to attend meetings, monitor progress, and generally feel they are part of the process.

- HCP participants should avoid creating an impression that they are pursuing unstated agendas or negotiating in bad faith. The trust developed between diverse and sometimes antagonistic HCP participants can be fragile, and this

impression can be damaging to a productive HCP even if untrue. Participants need to be sensitive to perception and avoid the impression of bad faith.

- The FWS and NMFS should not assign inexperienced staff to provide technical assistance to large-scale or regional HCP steering committees. This can result in mistakes, lost opportunities, and suggests to the applicants that the agencies are disinterested in the planning process. Inexperienced staff should learn the HCP process by working on small HCPs and by assisting other staff on larger efforts. If no staff have specific HCP experience, then individuals who are otherwise seasoned FWS or NMFS professionals should be assigned. If such individuals are not available, other staff should be sent to monitor HCP progress but not to actively participate. In such cases, staff sent to monitor the HCP should make clear to the applicants the limitations of their participation and resist rendering advice on important issues. However, they can and should act as liaisons to more experienced staff in the Field Office in answering questions or obtaining advice.

- The composition of the steering committee will depend on the type of HCP involved. Regional HCPs involving numerous activities and in which the applicant is a government entity ideally should include representatives from all affected interests. Steering committees for non-government HCPs can be organized according to the specific needs of the applicant, but at the least should include representatives from each permit applicant.

- A good facilitator or consultant who is skilled at moderating committee meetings, building consensus, and handling uncooperative parties can help significantly to move the HCP process forward.

4. The Services' Roles on Steering Committees & HCP Efforts.

Neither the FWS nor NMFS is required by statute or regulation to serve on HCP steering committees. Nevertheless, it is strongly advised that section 10 applicants invite the Services to participate as technical advisors on their steering committees. This will help ensure that adequate biological standards are incorporated into the HCP and that the HCP and associated documents meet procedural requirements when the permit application is

submitted. An HCP prepared in the absence of Service technical participation could be judged inadequate late in the process and unnecessary delays could result. The same caveat applies to all HCPs, regardless of size or whether a steering committee is established.

However, a careful balance needs to be drawn between constructive Service involvement in HCP efforts and overly aggressive involvement. Too little involvement can leave the impression that FWS or NMFS are disinterested or unhelpful, while too much can create the perception that the Services are inflexible in their approach to the HCP process, rigidly dictating the mitigation program.

To avoid either impression, Service HCP representatives need to understand their role and make that role clear to the applicant and the steering committee. Their function as agency representatives is to provide guidance about statutory and policy standards and to help facilitate development of a suitable mitigation program that satisfies the requirements of section 10; it is not to dictate every element in the HCP. The option to ignore or modify Service recommendations remains with the applicant; of course, doing so might result in subsequent difficulties during the permit application processing phase and the disapproval of an inadequate HCP. Service representatives at the Field Office level cannot pre-approve an HCP because section 10 permits are issued by the Regional Office (or, for NMFS, the Washington, D.C. Office), and, although advance coordination between the Field and Regional Offices should ensure their agreement on the HCP's adequacy, the permit application must still be evaluated fully during the public comment period.

The Services' steering committee members should also abstain from formal voting procedures on HCP issues if the committee conducts such votes. This will prevent confusion and reinforce the Services' proper role as advisor. Until the HCP is completed and submitted for approval, specific HCP development decisions are up to the steering committee and the applicant.

During the HCP development phase, the Services should be prepared to advise section 10 applicants on the following (regardless of whether there is a steering committee):

- Preparing the species list and identifying project scope and impacts.
- Biological studies and data needed to assess project impacts;
- NEPA requirements and the applicant's potential role in developing the NEPA analysis.
- Applicability of state endangered species law and requirements, and any other Federal laws that may be applicable, if any.

- o Project modifications that would minimize take and reduce impacts, or, ideally, and with concurrence of the applicant, would generate an overall measurable net benefit to the affected species;

- o Design of mitigation, habitat enhancement, or mitigation programs;

- o Reserve design criteria and assistance in population viability assessments, if desired.

- o Methods for monitoring HCP progress and project impacts on affected species;

- o Biologically acceptable take limits and how to define them;

- o Criteria to track or determine success of the HCP; and,

- o Procedural and other HCP issues as requested by the committee.

5. Preparing the HCP Species List.

In many HCPs, there are one or two primary species that "trigger" the need for an incidental take permit (e.g., the northern spotted owl or salmon in the Pacific Northwest, desert tortoise in southwestern deserts, or red-cockaded woodpecker in the southeast), though other listed species may occur in the same planning areas. After the decision has been made to obtain a permit, one of the first decisions an HCP applicant must make is what species to address in the plan. Generally, permit applicants should be advised to include all federally listed wildlife species likely to be incidentally taken during the life of the project or permit. If the applicant does not address such species, it may not be possible to issue the permit (if the issuance of a more limited permit would violate section 7(a)(2) for the listed species not covered) or the project activities could be stopped or delayed after the permit has been issued if a listed species that was not addressed in the HCP is likely to be taken during project activities.

There are also advantages in addressing unlisted species in the HCP (proposed and candidate species as a minimum), particularly those that are likely to be listed within the foreseeable future or within the life of the permit. Doing so can protect the permittee from further delays--e.g., having to revise the HCP and amend the permit--should species that were not listed at the time the original HCP was approved subsequently become listed. In addition, the "No Surprises" policy (see below, Section B.5(a)), applies to listed as well as unlisted species if they are adequately addressed in the HCP.

The more species addressed in the HCP, the more potentially complicated the HCP may become. For example, in most state systems, primary jurisdiction over candidate species rests with the affected State fish and wildlife agency, thereby increasing the advisability of

that agency's participation in the HCP process. Thus, selecting the species list can become an exercise in balancing the need to obtain maximum regulatory certainty, with practical considerations such as manageability, availability of biological information, and cost. The Services should be prepared to advise the applicant about which listed species should be highest priority in the HCP, which unlisted species are most likely to be listed in the future, and which species, listed or unlisted, can otherwise be advantageously addressed in the HCP. Ultimately, the decision about what species to address in the HCP lies with the applicant. In any case, the species list should be developed and agreed upon early in the HCP process, since it forms much of the basis for future plan development.

When preparing the species list the applicant should be informed that the ESA generally does not prohibit the incidental take of federally listed plants. Nevertheless, the Services should encourage the applicants to consider including listed plants in HCPs because, although incidental take of plants may not be prohibited by section 9, the section 7(a)(2) prohibition against jeopardy does apply to plants. If the section 7 consultation on a section 10 permit application concludes that issuance of the HCP permit for wildlife species would jeopardize the existence of a listed plant species, the permit could not be issued. To avoid this outcome, the applicant should ensure that actions proposed in the HCP are not likely to jeopardize any federally listed plant species. In addition, not all species under the jurisdiction of NMFS listed as threatened are subject to the section 9 take prohibitions. Such prohibitions are applied through regulation, on a case-by-case basis. Therefore, an incidental take permit may not be required for these species. Specific regulations are provided at 50 CFR Part 227.

6. Involving Other Federal and State Agencies.

During the development stage of an HCP, the Services will provide technical assistance and information concerning regulatory and statutory requirements to the applicants to ensure completeness of the application. Throughout this developmental process, the Services will encourage applicants to invite and include other Federal and State agencies who can utilize their existing authorities, expertise, or lands, in support of the HCP development and implementation process. It is particularly important to encourage participation of other Federal and State agencies that manage nearby lands into the HCP development process, if the applicant is willing to do so. However, the Service must ensure that activities are not identified in the HCP that obligate other agencies to conduct mitigation or minimization activities for species covered by the HCP, unless specifically negotiated with the agency, and the agency was a partner in the development and implementation of the HCP.

The "No Surprises" policy, which provides the applicant with regulatory certainty, calls for the Services to assist with correcting any unforeseen circumstance that may arise. This means that in the face of unforeseen circumstances the FWS and NMFS will not require additional mitigation in the form of additional lands or funds from any permittee who is adequately implementing or has implemented an approved HCP. Once the permit is issued and its terms

are being complied with, the applicant will not be required to accept additional obligations of this type. The policy also protects the permittee from other forms of additional mitigation except in cases where "extraordinary circumstances" exist.

The Services can, however, encourage other Federal or State agencies to assist with any unforeseen circumstances. Other agencies will be better able to assist if they have been involved throughout the entire HCP development. Any Federal or State agency that could ultimately be affected by the implementation of an HCP will be notified during the developmental process, and once the HCPs are completed and the incidental take permit is issued the Services will provide copies to the affected agencies. This will help these agencies effectively manage their lands in a way that could support the HCP and promote the conservation and recovery of listed and unlisted species.

7. Treaty Rights and Trust Responsibilities.

A unique and distinctive relationship exists between the United States and Native American Tribes, as defined by treaties, executive orders, statutes, court decisions, and the United States Constitution. This relationship differentiates tribes from other entities that deal with, or are affected by, the Federal government.

Indian tribes are recognized under Federal law as separate sovereigns with governmental rights over their lands and people. These governmental rights and authorities extend to natural resources that are reserved by or protected in treaties, executive orders, and Federal statutes. Such reserved rights may include off-reservation rights to hunt, fish, or gather trust resources.

The United States has a Federal trust obligation towards Indian tribes to preserve and protect these rights and authorities. The Federal Indian trust responsibility is a legal enforceable fiduciary obligation, on the part of the United States, to protect tribal lands, assets, resources, and treaty rights, as well as a duty to carry out the mandates of Federal law with respect to American Indian tribes and Alaskan Natives.

During habitat conservation planning negotiations with non-Federal landowners, the Services must consider whether proposed plans might affect tribal rights to trust resources. Whenever the Services have a reasonable basis for concluding that such effects might occur, they must notify the affected tribes and consult government to government in a meaningful way. Consultation with the affected tribe shall be completed within a timely manner. After careful consideration of the tribe’s concerns, the Services must clearly state the rationale for the recommended final decision and explain how the decision relates to the government’s trust responsibilities. In light of this obligation, it is important that the Services identify and evaluate during the planning process, any anticipated effects of a proposed HCP upon Indian trust resources.

## B. Developing the HCP

1. Mandatory Elements of an HCP.

Under the Endangered Species Act [Section 10(a)(2)(A)] and Federal regulation [50 CFR 17.22(b)(1), 17.32(b)(1), and 222.22], a conservation plan submitted in support of an incidental take permit application must detail the following information.

- Impacts likely to result from the proposed taking of the species for which permit coverage is requested;

- Measures the applicant will undertake to monitor, minimize, and mitigate such impacts; the funding that will be made available to undertake such measures; and the procedures to deal with unforeseen circumstances;

- Alternative actions the applicant considered that would not result in take, and the reasons why such alternatives are not being utilized; and,

- Additional measures FWS or NMFS may require as necessary or appropriate for purposes of the plan.

Each of these conservation plan elements are discussed in detail in the sections below. NMFS regulations (50 CFR 222.22) also require a list of all sources of data used in preparation of the plan.

Section 10 HCP requirements and permit issuance criteria must be clearly explained to any prospective permit applicant at the outset of an HCP effort. This is essential to ensure that the applicant understands the HCP process and that the HCP is developed within required legal parameters.

2. Identifying Project Impacts.

Four subtasks must be completed to determine the likely effects of a project or activity on federally listed or candidate species: (a) delineation of the HCP boundaries or plan area; (b) collection and synthesis of biological data for species to be covered by the HCP; (c) identifying activities proposed in the plan area that are likely to result in incidental take; and (d) quantifying anticipated take levels. To help expedite the section 7 process, the HCP should also assist the Services in: (e) satisfying the requirements of section 7 of the ESA; (f) addressing significant indirect effects of the project on federally listed species, if any; (g) addressing jeopardy to federally listed plants, if anticipated; and (h) addressing effects on critical habitat, if any. Section 7 should be addressed as early as is practicable in the HCP development process.

a. Delineation of HCP Boundaries. HCP boundaries should encompass all areas within the applicant's project, land use area, or jurisdiction within which any permit or planned activities likely to result in incidental take are expected to occur. HCP boundaries should also be as exact as possible to avoid later uncertainty about where the permit applies or where permittees have responsibilities under the HCP. For low-effect and many other HCPs, the plan area is usually synonymous with the project or land use site or the landowner's property. For regional HCPs, the size and configuration of the plan area will depend on various factors. Sometimes a regional HCP boundary will simply be a county line because a county government is the applicant. In other cases, it will be drawn to deliberately include or exclude certain areas or activities, depending on the participants' objectives [see Section B.2(c) below].

Generally, HCP applicants should be encouraged to consider as large and comprehensive a plan area as is feasible and consistent with their land or natural resource use authorities. Regional and other large-scale HCPs allow the permittee to address a broad range of activities and to bring them under the "umbrella" of the permit's legal protection. They also allow analysis of a wider range of factors affecting listed species, maximize flexibility needed to develop innovative mitigation programs, and minimize the burden of ESA compliance by replacing individual project review with comprehensive, area-wide review.

On the other hand, considering a large and complicated planning area has its own potential difficulties. Attempts to satisfy too many land use or endangered species issues in one effort can be frustrated by excessive complexity, shortages of biological information, and difficulties in securing the consensus of HCP participants. However, these are judgment calls, and the final size and configuration of an HCP planning area will often be a compromise between the need to be as comprehensive as possible and the inherent risks of an over-extended, protracted HCP effort.

Regional HCPs sometimes can be simplified by dividing the planning area into separate planning units with different conditions and requirements for each area. This approach was adopted in the San Bruno Mountain HCP. Coordination with individual landowners and local land use authorities will help determine when subdivision of a plan area will yield substantial advantages.

In any case, neither the ESA nor its implementing regulations limits the size of an HCP planning area. No matter how large or small, HCP areas are acceptable so long as the HCP is statutorily complete and meets the section 10 issuance criteria. With respect to small projects, the FWS section 10 regulations state that, "The Service believes that Congress did not intend to exclude projects from the incidental take provisions of section 10(a) merely because the projects were of more limited duration or geographical scope [than the San Bruno Mountain HCP]" (50 FR 39681-39691).

The HCP plan area might also include areas necessary for the mitigation. The exception to this general rule may be where the mitigation consists of reserves apart from the area in which incidental take is authorized. This will entail various considerations--e.g., the distance from permitted activities to reserve areas (see below, Section B.2(c)) and the ability of the permit applicant or its designee to regulate activities inside the reserve. Private, state, or locally-owned lands should never be considered for inclusion in HCPs as reserves without the concurrence of the landowners or their representatives.

b. Collection and Synthesis of Biological Data. Preparing an acceptable HCP requires the availability of up-to-date biological information on the species being considered within the plan area. First, the applicant should collate and review existing information about species distribution, occurrence, and ecology. FWS or NMFS can assist in this process by directing the applicant to available information. Second, the applicant should determine whether the available information is adequate to proceed with the planning process. If not, FWS or NMFS should recommend the type, scope, and design of biological studies that can reasonably be developed to support the HCP. However, research efforts on behalf of an HCP should be confined to distribution studies or other studies with a direct bearing on the needs of the HCP. Permit applicants should not be expected to undertake studies that do not directly affect the outcome of the HCP. Determining the availability of existing information is especially important for regional HCPs, since they may involve species whose biology is not well known. Low-effect HCPs typically will not require additional studies beyond surveys needed to determine the distribution of the species within the plan area.

Another approach to consider for HCPs is habitat-based HCPs (see Chapter 3, Section C.1) in which the presence of a particular species can be assumed based on the presence of its habitat type; if that habitat type is then addressed in the HCP and included in the mitigation program, additional distribution studies may not be necessary.

c. Determination of Proposed Activities. The applicant should be encouraged to include in the HCP a description of all actions within the planning area that: (1) are likely to result in incidental take; (2) are reasonably certain to occur over the life of the permit; and (3) for which the applicant or landowner has some form of control. For many HCPs, this will usually involve a specific well-defined project (e.g., home construction; water use development) or land use activity (e.g., forestry). For regional and other large-scale planning efforts, the applicants will need to determine what activities they wish to include in the HCP and, if necessary, which ones they wish to exclude. Generally, applicants should be encouraged to include as comprehensive a set of activities in the HCP as is practicable. This will maximize the permittee's long-term planning assurances, broaden legal coverage, and minimize the possibility that some future activity will not be covered by an issued permit.

What is being authorized in a section 10 permit is incidental take, not the activities that result in the take. Similarly, a violation of the permit occurs only if the amount or extent of authorized take is exceeded or if the terms and conditions of the HCP or the permit are not

implemented, not necessarily because some unspecified activity has occurred. The legality of an incidental take occurring during a specific activity will depend on how the HCP is structured. In some regional HCPs, the permit may specify that a certain number of habitat acres may be modified during construction activities, but the specific types of construction are unspecified--in which case the construction type *per se* would not affect the legality of any resulting incidental take. However, other HCPs may analyze incidental take in the context of a specified activity to be conducted across the HCP area, such as forest management. In such cases, incidental take is only authorized in association with specifically analyzed activities.

Even in the former case, an activity type that is not implicitly or explicitly covered by an HCP should not be allowed to "use" portions of the incidental take authorization at the expense of activities that are described. Unless broadly defined types of activities are described in the HCP (e.g., timber harvest, agriculture, or construction activities), then incidental take occurring during such activities within the plan area generally would not be authorized. In any case, the specificity with which activities are described in the HCP will depend on the applicant's objectives. They should be sufficiently described (as included or excluded) that the permittee or landowners subject to the permit can determine the applicability of the incidental take authorization to the activities they undertake.

Determining appropriate activities to include in the HCP can involve the same considerations as those described in Section B.2(a) concerning the HCP boundary. Here again the desire for a comprehensive HCP must be balanced against the risk of over-complicating the plan. Also a factor is the willingness of any particular group to participate in the HCP process. No group can be forced to participate. Of course, not participating in the responsibilities of the HCP also means not enjoying the benefits of protection from the incidental take prohibition and regulatory streamlining.

In some cases, specific landowners or industries may be reluctant to become involved in the HCP process. In such cases, Service representatives should assist the remaining participants in good faith, while encouraging "sideliners" to observe the benefits of the program. Of course, "non-participants" should understand that if their activities are not addressed in the HCP, either specifically or generically, they will not be covered by the incidental take permit. Moreover, if the permit applicant is a state, regional, or local governmental agency, "non-participants" may ultimately be affected by the terms and conditions of an HCP once the permittee begins to implement the HCP through the exercise of its regulatory powers. In other cases, a landowner may elect not to participate in an HCP for other reasons--for example, if they are negotiating a separate agreement or are operating under an existing permit.

These factors can result in HCPs with unusual inclusions and exclusions. For example, in the Metropolitan Bakersfield HCP in California, oil development activities are specifically excluded from the planning area but are proposed for inclusion in the Kern County HCP,

which overlays the Bakersfield HCP (see Appendix 3). Sometimes a new HCP will overlay multiple existing HCPs, or some applicants may elect to pursue an HCP on their own even though a regional HCP is being developed in the same area. Also, more than one regional HCP may occur near each other within the same bio-regional province, or two such HCPs may occur within the range(s) of the same species. Such inclusions and exclusions are perfectly acceptable. Nevertheless, participants should be aware of coordination problems that can develop between HCPs in these types of cases. For example, it is important to ensure that mitigation programs for the same species are identical in adjacent HCPs. Also, the Services should not issue more than one permit for identical activities in the same area at the same time, since this could result in two differing sets of conditions for the same activities. In cases where a new HCP overlays an existing one, neither the Services nor the new permit-holder can force existing permittees to adopt conditions of the new permit without their consent--(however, there may be exceptions, such as when the new permittee is a state or local government with its own regulatory authority). Generally, however, the Services will not seek additional mitigation from existing HCP permit holders for the same activities affecting the same species under a broad regional plan.

d. Determining Anticipated Incidental Take Levels. In determining the amount of incidental take that will be authorized during the life of the permit, three things must be determined: (1) how incidental take will be calculated; (2) the level of incidental take and related impacts expected to result from proposed project activities; and (3) the level of incidental take that the section 10 permit will actually authorize.

The first depends on the ability of HCP participants to determine, to the extent possible, the number of individual animals of a covered species occupying the project or land use area or the number of habitat acres to be affected. Depending on this information, proposed incidental take levels can be expressed in the HCP in one of two ways: (1) in terms of the number of animals to be "killed, harmed, or harassed" if those numbers are known or can be determined; or (2) in terms of habitat acres or other appropriate habitat units (e.g., acre-feet of water) to be affected generally or because of a specified activity, in cases where the specific number of individuals is unknown or indeterminable. The latter is typically expressed as all individuals occupying a given area of habitat, in whatever habitat unit is being used.

The next aspect depends on the number of animals or habitat units that occur in the project or planning area, and the likelihood that any given activity will result in take. This can be determined by first "overlaying" data on proposed activities--often in the form of maps--with biological data compiled from existing sources and collected in the field by the applicant. When this is completed, the effects of particular activities on species occupying project areas can be analyzed.

Under Federal regulation (50 CFR 17.3), "harm" in the definition of take can include "significant habitat modification or degradation where it actually kills or injures wildlife by

significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering." Therefore, habitat modification or destruction, to the extent the above effects occur, can constitute take and must be detailed in the HCP and authorized by the permit.

"Harassment" is defined by regulation as "an intentional or negligent act or omission which creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding, or sheltering." As with "harm," any action qualifying as harassment under this definition must be described in the HCP and authorized by the permit (see Chapter 7, Section B.1).

After expected take levels have been estimated based on a comparison of proposed activities with species distribution in the plan area, the applicant and the Services can begin to determine the final outcome of the HCP. In general terms, this is done by determining what incidental take levels can be authorized that are consistent with the section 10 issuance criteria (i.e, that will not "appreciably reduce the likelihood of the survival and recovery of the species in the wild"), and developing a mitigation program that is also consistent with the issuance criteria (i.e., that will minimize and mitigate "to the maximum extent practicable"). If, in the Services' judgment, initially anticipated incidental take levels exceed what can be permitted under the section 10 issuance criteria, additional take avoidance and other mitigation measures must be developed.

These processes--determining anticipated incidental take, development of the mitigation program, and establishing authorized incidental take levels--are dynamic and do not necessarily occur in consecutive order as the above description might infer.

e. Coordinating the HCP With Section 7 of the ESA. Section 7(a)(2) of the ESA requires all Federal agencies "in consultation with and with the assistance of the Secretary" to ensure 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 designated critical habitat. The section 7 implementing regulations (50 CFR Part 402) require, among other things, analysis of the direct and indirect effects of a proposed action, the cumulative effects of other activities on listed species, and effects of the action on critical habitat, if applicable.

Consultation under section 7 of the ESA is the Federal agency's responsibility, not the applicant's. In the case of issuance of a section 10(a)(1)(B) permit, FWS or NMFS must conduct an intra-Service (or internal) consultation to ensure compliance of permit issuance with the provisions of section 7. However, although the consultation responsibilities is not the permit applicants, the applicant should help ensure that those considerations required of the Services by section 7 have been addressed in the HCP. Otherwise, the Services' section 7 consultation on proposed permit issuance might result in a jeopardy or adverse modification finding with respect to indirect or cumulative effects, listed plants, or critical habitat if the HCP has inadequately considered these issues.

However, despite these additional considerations, in most cases the applicant will not actually experience a significant increase in responsibilities under the HCP because of the Services' associated section 7 responsibilities. This is because there are relatively high thresholds under section 7 (i.e., jeopardy), and many of the same relevant biological considerations are already integrated into the HCP process [see Sections B.2(f)-(h) below].

In many cases, the procedural aspects of the section 7 consultation are more important to the applicant's interests than its substantive outcome. In the past, some have viewed the section 7 consultation for a section 10(a)(1)(B) permit as an independent review process that occurs after the HCP has been prepared and during the permit application processing phase. However, this approach left the permit applicant with no guarantee that the process of meeting the requirements of section 10(a)(1)(B) would result in issuance of the permit, since a section 7 consultation conducted late in the process could result in the discovery of unresolved issues, the return of an inadequate HCP to the applicant, or a jeopardy biological opinion.

To avoid this, it is now Service policy to begin integrating the section 7 and section 10 processes from the beginning of the HCP development phase, and to regard them as concurrent and related, not independent and sequential, processes.

In procedural terms, this means that considerations of section 7 consultation requirements should start at the beginning of the HCP development phase, not during the permit processing phase. It also means that if the Services and the applicant work together to develop an adequate HCP--one that meets the section 10 issuance criteria as well as the Services' applicable section 7 standards--then a "no jeopardy" biological opinion at the close of the section 7 consultation should be virtually assured. Service representatives should explain to HCP applicants at the outset of any HCP effort the Services' section 7 obligations, how those obligations affect the applicant, and how the two processes (sections 7 and 10) will be integrated.

f. Addressing Indirect Project Effects. In some cases, it may be determined that activities being considered in an HCP would be likely to result in indirect effects to listed species. The implementing regulations of section 7 of the ESA define indirect effects as "those that are caused by the proposed action and are later in time, but still are reasonably certain to occur." In the HCP context, this would typically mean that activities under the HCP are expected to affect species outside the HCP plan area, or species that are inside the plan area but are not otherwise directly covered by the terms of the HCP. If expected indirect effects are serious enough to result in jeopardy or result in adverse modifications to critical habitat, and they have not been adequately treated in the HCP, the Services would have to deny the permit. Thus, indirect effects issues must be treated carefully during any HCP negotiation process.

From a practical standpoint, one problem is that large-scale projects of the type addressed in many HCPs can have "ripple" effects that continue long past their point of origin. Following

a causation chain of indirect effects from their point of origin to some specific effect, or vice versa, can be difficult, and assigning responsibility for all potential subsequent effects to the originator of a particular action may not be justified or practical.
For example, some species addressed in HCPs occupy small habitat areas or have narrow habitat requirements and are therefore unusually vulnerable to biotic and abiotic factors such as fire, vegetation succession, predation, and interspecific competition. In these cases, human alteration of the landscape in and around such habitats can have heightened adverse effects or specific indirect effects that must be addressed if the habitats are to be considered viable and affected populations are to persist. A good example is development in endangered beach mice habitat, which results in increased pet populations and then increased predation on beach mice. The HCP in such cases must address these types of effects. In the southeast, for example, some approved HCPs have been predicated on the successful control of post-project, human-induced effects on endangered species populations that remain or are protected after development of adjacent areas. Permittees have agreed to provide funding to control predators and competitors of listed species, nuisance or exotic vegetation, or pollution, and to meet education and information needs in the local community.

With these considerations in mind, the following guidance is provided about how to address indirect effects issues in HCPs. If a species is likely to be jeopardized as a result of the indirect effects of activities proposed in an HCP, the Services may not issue the permit unless these effects are adequately addressed. However, before an HCP is required to contain additional requirements to adequately address indirect effects under section 7: (1) the risk of jeopardy should be clear and reasonably certain to occur; and (2) the indirect effects in question must be reasonably foreseeable and a proximate consequence of the activities proposed under the HCP. The standard for imposing additional requirements on an HCP is the likelihood of jeopardy, not just the existence of indirect effects.

g. Consideration of Plants in the HCP and Permit. The take prohibition for federally listed plants under the ESA is more limited than for listed animals. Section 9(a)(2)(B) prohibits the removal of listed plants or the malicious damage of such plants on areas under Federal jurisdiction, or the destruction of listed plants on non-Federal areas in violation of state law or regulation. Thus, the ESA does not prohibit the incidental take of federally listed plants on private lands unless the take or the action resulting in the take is a violation of state law (which in most cases eliminates the need for an incidental take permit for plants).

Nevertheless, the Services recommend that permit applicants consider listed plants in HCPs. This is because the section 7(a)(2) prohibition against jeopardy applies to plant as well as wildlife species; and if the section 7 consultation on a section 10 permit application concludes that issuance of the permit for wildlife species would jeopardize the existence of a listed plant species, the permit could not be issued. To avoid this outcome, the applicant should ensure that actions proposed in the HCP are not likely to jeopardize any federally listed plant species.

However, if it is determined that the proposed HCP is not likely to jeopardize the continued existence of any federally listed plant species, then any such plants present within the HCP area that are on private or other non-Federal lands are protected against incidental take only to the extent that state law applies. Beyond that the applicant has no further responsibility with respect to listed plants. In the spirit of the conservation planning process, however, the Services will encourage applicants to address endangered or threatened plants in their HCPs.

Although take of listed plants does not require a section 10 permit in most cases, the names of any plants addressed in the HCP can be placed on the permit at the request of the applicant when it is issued. This might be done: (1) because a particular plant is protected by state law and is subject to the section 9 take prohibition; or (2) to protect the permittee's interests should the legal status of any plant change during the life of the permit as a result of changes to the ESA. This approach is acceptable and is encouraged if the permit applicant requests it or it otherwise increases the applicant's confidence in the long-term assurances under the permit. It is also consistent with the treatment of unlisted wildlife species in section 10 permits as described in Chapter 4.

h. Addressing Effects on Critical Habitat. Section 7(a)(2) prohibits the "destruction or adverse modification" of designated critical habitat by any action authorized, funded, or carried out by a Federal agency. The section 7 regulations define "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." The regulations for section 4 of the ESA (50 CFR 424.12) describe the "constituent elements" of critical habitat as "those that are essential to the conservation of the species" including, but not limited to, "roost sites, nesting grounds, spawning sites, feeding sites, seasonal wetland or dryland, water quality or quantity, host species or plant pollinator, geological formation, vegetation type, tide, and specific soil types."

Thus, in issuing section 10 permits, the Services must ensure that the constituent elements of critical habitat will not be altered or destroyed by proposed activities to the extent that the survival and recovery of affected species would be appreciably reduced. However, these section 7 obligations typically impose few restrictions on the HCP applicant in addition to those required by section 10, because the section 10 issuance criteria also prohibit appreciably reducing the "likelihood of the survival and recovery of the species in the wild" [section 10(a)(2)(B)]. In other words, the inherent biological value of areas designated as critical habitat typically would prevent significantly greater alteration of their constituent habitat elements under section 10 than would be permissible under section 7. Nevertheless, to the extent that a proposed HCP might result in impacts to critical habitat, such impacts should be described and evaluated in the biological opinion concluding section 7 consultation on the permit application.

Some HCPs encompass areas that have been or have the potential to be designated as critical habitat. To fulfill the Service’s section 7 compliance responsibilities, all HCPs must be

reviewed to determine whether they are likely to jeopardize the continued existence of the species or cause adverse modification to designated critical habitat. The Services will provide technical assistance and work closely with the applicant throughout the development of the HCP to reduce the probability of developing an HCP that would not meet these criteria.

It is possible to approve an HCP that authorizes land use or development activities within an area designated as critical habitat. The activities approved under an HCP could include a variety of land or natural resource use activities that modify critical habitat on a large scale without the activities being deemed an adverse modification contrary to the requirements of section 7(a)(2). The authorization of activities in critical habitat through the HCP process is possible because the adverse modification of critical habitat is analyzed by determining the effects on the entire area designated as critical habitat or an administrative part or unit of the critical habitat, not on a smaller scale of particular individual acres. In addition, the HCP permittee must minimize and mitigate for any effects caused by the authorized activity, which would offset or reduce the significance of adverse effects to the critical habitat. Thus, the overall net affect of authorized land use activities for a particular HCP can be brought within the range of effects which is allowable under section 7.

3. Mitigation Programs & Standards.

Mitigation programs under HCPs and section 10 permits are as varied as the projects they address. Consequently, this handbook does not establish specific "rules" for developing mitigation programs that would limit the creative potential inherent in any good HCP effort. On the other hand, the standards used in developing HCPs must be adequate and consistent regardless of which Service office happens to work with a permit applicant. Mitigation programs should be based on sound biological rationale; they should also be practicable and commensurate with the impacts they address. This section sets forth some fundamental standards for mitigation programs and suggests some broad mitigation strategies, but leaves the development of specific programs to individual applicants and Service personnel.

Mitigation actions under HCPs usually take one of the following forms: (1) avoiding the impact (to the extent practicable); (2) minimizing the impact; (3) rectifying the impact; (4) reducing or eliminating the impact over time; or (5) compensating for the impact. For example, project effects can be (1) avoided by relocating project facilities within the project area; (2) minimized through timing restrictions and buffer zones; (3) rectified by restoration and revegetation of disturbed project areas; (4) reduced or eliminated over time by proper management, monitoring, and adaptive management; and (5) compensated by habitat restoration or protection at an onsite or offsite location. In practice, HCPs often use several of these strategies simultaneously or consecutively. Other types of mitigation not mentioned may also be used.

a. Regulatory Standards & Relationship to Recovery.

Issuance criteria under section 10 of the ESA require that the HCP applicant "minimize and mitigate" the impacts of any incidental taking authorized by a section 10 permit, and that issuance of the permit not "appreciably reduce the likelihood of the survival and recovery of the species in the wild" (see Chapter 7). Section 7(a)(2) of the ESA requires that issuance of a permit does not "jeopardize the continued existence of" any federally listed species, or result in "destruction or adverse modification" of designated critical habitat. The implementing regulations of section 7 define "jeopardize" 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 the species in the wild by reducing the reproduction, numbers, or distribution of that species"--this is essentially identical to the section 10 issuance criterion cited above. Section 7(a)(2) also requires use of "the best scientific and commercial data available" in fulfilling its provisions. No other specific mitigation standards for HCPs are specified under the ESA.

Issuance of a section 10 permit must not "appreciably reduce" the likelihood of the survival and recovery of the species in the wild. Note that this does not explicitly require an HCP to recover listed species, or contribute to their recovery objectives outlined in a recovery plan. This reflects the fact that HCPs were designed by Congress to authorize incidental take, not to be mandatory recovery tools.

However, recovery is nevertheless an important consideration in any HCP effort. This is because, some HCPs may encompass all or much of a species' range and address crucial biological issues; because of the inherent biological significance of such planning areas, a poorly designed HCP could readily trigger the "appreciably reduce" or "jeopardize" standard. Second, many HCPs, even smaller ones, can be said to contribute to recovery to the extent that individually or collectively they provide for dependable conservation actions and long-term biological protections. Thus, contribution to recovery is often an integral product of an HCP, but it is not an explicit statutory requirement.

To put this in practical terms, applicants should be encouraged to develop HCPs that produce a net positive effect for the species or contribute to recovery plan objectives. The Services should also assess the extent to which an HCP's mitigation program is consistent with recovery plans. In general, conservation plans that are not consistent with recovery plan objectives should be discouraged.

Similarly, HCPs that might preclude a significant recovery option, unless they otherwise contribute substantially to the goal of recovery should also be discouraged. In cases where a recovery plan is not available, the Services must use other available biological information and its best judgement to encourage the development of HCPs that would aid in a species' recovery.

b. Must An HCP Benefit the Species?

Whether or not an HCP must benefit a species is similar to its relationship to recovery objectives. No explicit provision of the ESA or its implementing regulations requires that an HCP must result in a net benefit to affected species. However, just as they can contribute to recovery, HCPs can also benefit the species they address because of the conservation programs they establish and the long-term assurances they provide. This is especially true of regional and other large-scale HCPs that address all or much of a species' range. Wherever feasible, the FWS and NMFS should encourage HCPs that result in a "net benefit" to the species.

c. Mitigation for Habitat Loss.

Activities conducted under HCPs frequently involve permanent habitat losses (or temporary habitat disturbances), for which the permittee mitigates by acquiring or otherwise protecting replacement habitat at an onsite or offsite location. Commonly referred to as "habitat mitigation," this strategy is acceptable under the HCP process so long as such mitigated habitat losses are consistent with the section 10 issuance criteria.

One form of habitat mitigation is the "habitat bank" approach, in which habitats are "banked" (protected through conservation easement or other means) prior to a project. These lands are then utilized as needed for mitigation purposes. A variation on this scheme is the "mitigation credit" system--in which "banked" habitats are established as "credits" (usually on a per-acre basis), and the habitat banker then uses the credits as needed or sells them to other parties requiring mitigation lands at a fair market price. The latter system has considerable promise as a mitigation strategy because: (1) it allows owners of endangered species habitat to derive economic value from their land as habitat; (2) it allows parties with mitigation obligations to meet their obligations rapidly (mitigation lands are simply purchased as credits); and (3) the mitigation lands are provided prior to the impact (eliminating uncertainty about whether a permittee might fail to fulfill the HCP's obligations after the impact has occurred). Still another approach is the "mitigation fund," in which a permittee pays a cash amount as determined by the HCP into an account administered by a suitable entity, and where other such contributions are pooled into a habitat acquisition fund.

The type of mitigation habitat and its proximity to the area of impact will need to be considered. Generally, the location of replacement habitats should be as close as possible to the area of impact; it must also include similar habitat types and support the same species affected by the HCP. However, there may be good reason to accept mitigation lands that are distant from the impact area--e.g., if a large habitat block as opposed to fragmented blocks can be protected or if the mitigation lands are obtained through a mitigation fund. Ultimately, the location of mitigation habitat must be based on individual circumstances and good judgement.

Potential types of habitat mitigation include, but are not limited to: (1) acquisition

of existing habitat; (2) protection of existing habitat through conservation easements or other legal instruments; (3) enhancement or restoration of disturbed or former habitats; (4) prescriptive management of habitats to achieve specific biological characteristics; and (5) creation of new habitats. Here again, the specific strategy or combination of strategies used will depend on the species and type of habitat involved. In some cases, acquisition of high-quality existing habitat will be the best approach--for example, where the habitat type takes years to develop (e.g., old-growth forest). However, if such habitat is continually being lost, a strategy based on this method alone could result in net loss of habitat value. In other cases, restoring degraded habitat or creating new ones is the best strategy--for example, where the habitat type is relatively easy to manipulate (e.g., grasslands). Where affected species depend on natural disturbance regimes that can be replicated through management regimes (e.g., prescribed fire or flooding), prescriptive management may be preferable to habitat acquisition or protection alone.

Certain caveats may apply to these strategies, however. For example, when a mitigation program involves creation of new habitat or restoration of degraded habitats, HCP participants should ensure that techniques used are proven and reliable or, if relatively new, that contingency measures or adaptive management procedures are included to correct for failures.

Sometimes, the HCP applicant may need to conduct activities prior to the time when replacement habitats can be provided. This is acceptable so long as the HCP provides legal or financial assurances that the permittee will fulfill the HCP's obligations. One way to accomplish this is through Letters of Credit controlled by the government until the mitigation lands have been provided. Another method is requiring a specified cash payment into a mitigation fund prior to commencement of HCP activities. However, such payments alone are not regarded as acceptable mitigation. Unless the fund is ultimately used and habitat is otherwise acquired. Mitigation funds have often been used in regional HCPs in which the responsible party for habitat mitigation under the HCP is a state or local government agency. Other examples are mitigation funds or other well-established mitigation programs utilized by small-landowners [see below, Section B.3(d)]. In such cases, the responsibilities of individual contributors may end with the payment, and any additional performance requirement would either be waived or would belong to the permitted agency.

One common issue raised during HCP negotiations is how long mitigation lands must be conserved. When habitat losses permitted under an HCP are permanent, protection of mitigation lands normally should also be permanent (i.e., "in perpetuity"). Mitigation for temporary habitat disturbances can be treated more flexibly; however, management logistics and other considerations may still dictate permanent mitigation for temporary impacts, though typically at a lesser rate than for permanent ones.

d. Funding Recovery Measures as Mitigation.

Another issue in cases where habitat is lost during HCP activities is whether funds contributed for purposes other than habitat acquisition or protection--e.g., species research--can serve as habitat mitigation. First and foremost, mitigation should address compensate for habitat lost through the permitted activities of the HCP by establishing suitable habitat for the species that will be held in perpetuity, if possible. For example, the mitigation requirement for low-effect HCPs that have a negligible effect on habitat could be to enhance existing habitat so that it meets the species' requirements. Generally, research is not considered a preferred mitigation strategy, since the type of mitigation is usually related directly to the type of effect.

It is acceptable in some cases for funding to be provided to State or Federal agencies to implement recovery actions within critical habitat, to restore degraded habitat, to address anthropogenic influences, and for conservation actions on larger, more secure populations of the affected species on public lands. In some cases, matching Federal/private funding has been developed under HCPs for such purposes.

e. Mitigation for Small-Scale, Low-Effect Projects.

It is important that methods be established by state and Federal wildlife agencies and other organizations that allow proponents of small projects or small-scale land use proposals to participate in larger HCPs, or that make convenient mitigation strategies accessible to low-effect HCPs. For example, it is often difficult for an individual to locate and acquire a few acres of mitigation habitat, since lands are usually sold by the lot or in large segments. A good way to accommodate this problem is to establish mitigation fund accounts that accumulate funds until relatively large-scale acquisitions can be effected [see above, Section B.3(c)]. Habitat banks are another good way to handle this situation. Avoid requiring permittees to meet habitat mitigation requirements without a practical, accessible means of meeting that requirement. In general, flexibility is needed in addressing the unique circumstances often associated with small landowners and small-scale, low-effect HCPs.

f. Consistency in Mitigation Standards.

Mitigation measures required by individual FWS or NMFS offices should be as consistent as possible for the same species. This can be challenging when a species encompasses multiple offices or regions, but is essential. The first step is good communication between offices. The next is establishment of specific standards--e.g., for survey methods, buffer zones, or mitigation methods--and consistent implementation of those standards. Field Offices should coordinate these standards between biologists in the same office; Regional Offices should ensure consistency among Field Offices. Mitigation standards should also be developed in coordination with state wildlife agencies. The Service should not apply inconsistent mitigation policies for the same species, unless differences are based on biological or other good reasons and are clearly explained. Consistent mitigation strategies help streamline the

HCP development process--especially for smaller HCPs--by providing readily available standards which applicants can adopt in their HCPs.

g. Adaptive Management.

The Services often incorporate adaptive management concepts into the HCP process to minimize the uncertainty associated with listed or unlisted species where there are gaps in the scientific information or their biological requirements. Over the years, there has been an increase in the diversity and geographical size of HCPs. As of late 1995, most HCPs approved were for planning areas of less than 1,000 acres. However, of the 200 HCPs being developed as of early 1996, approximately 25 exceed 10,000 acres, 25 exceed 100,000 acres, and 18 exceed 500,000 acres. This suggests that HCPs are evolving from a process developed primarily to address single developments to broad-based, landscape level planning tools utilized to achieve long-term conservation goals for listed and unlisted species, while allowing applicants to proceed with their land use and development.

For some species, not all of the scientific information needed to develop comprehensive long-term conservation strategies to conserve species may be available at the time of HCP development. Where these data gaps occur, not all of the questions regarding the long-term effects of implementing these HCPs can be answered. When significant uncertainty exists, it can be addressed through the incorporation and implementation of adaptive management measures into HCPs. For those HCPs with significant uncertainty, incorporating adaptive management provisions into the HCP becomes important to the planning process and the long-term interest of affected species. For example, an applicant's commitment to conduct watershed analyses (scientifically examining the conditions within watersheds and making site-specific recommendations) and then adjusting management strategies based on the results of the analyses for part or all of their lands is one form of adaptive management that has been applied to HCPs in the Pacific Northwest.

Through adaptive management, the biological objectives (or goals) of a conservation strategy are defined using techniques, such as models of the ecological system that includes its components, interactions, and natural fluctuations. If existing data makes it difficult to predict exactly what mitigation is needed to achieve a biological objective, then an adaptive management approach can be used in the HCP. The primary reason for using adaptive management in HCPs is to allow for changes in the mitigation strategies that may be necessary to reach the long-term goals (or biological objectives) of the HCP, and to ensure the likelihood of survival and recovery of the species in the wild. Under adaptive management, the mitigation activities of the HCP could be monitored and analyzed to determine if they are producing the required results (e.g., properly functioning riparian habitats). If the desired results were not being achieved, then adjustments in the mitigation strategy could be considered through an adaptive management clause of the HCP.

Research can fill data gaps and/or test the effectiveness of management and mitigation strategies, which can then be modified as new information is obtained. Adaptive management, if used, can provide a reliable means for assessing the mitigation and minimizing strategies outlined in HCPs, producing better ecological knowledge, and developing appropriate modifications that would improve the mitigation strategy for a species.

The base mitigation strategy or initial minimization and mitigation measures which are implemented must be sufficiently vigorous so that the Service may reasonably believe that they will be successful. An adaptive management approach is particularly useful when significant questions remain regarding an HCP's initial mitigation strategy. The Services should not approve an HCP using conservation strategies that have a low likelihood of success.

Monitoring is an important tool in an adaptive management approach and should be designed in a way that ensures data will be properly collected, analyzed, and used to adjust mitigation strategies, as appropriate. A key element of adaptive management is the establishment of testable hypotheses linked to the conservation strategies and their biological objectives. If monitoring determines that biological conditions are outside specific parameters or thresholds, which are defined in the HCP, the conservation strategies should be reviewed. The "thresholds" for review should be linked to key elements of the HCP and should be obtainable through monitoring data collected during the implementation of the HCP. These "threshold" levels should be clearly defined in the HCP and should be based upon measurable criteria, and monitoring should be clearly linked to those measurable criteria. The establishment of measurable criteria would dictate the type of monitoring including the number of samples, distribution of samples, and use of controls.

Prior to the issuance of a permit, there should be a clear understanding and agreement between the Services and the permittee as to the mitigation range of adjustments which might be required as a result of any adaptive management provisions. A mechanism for determining the magnitude of strategy change to be employed, based upon the results of the monitoring and the level of deviation significance from the desired condition, should be developed in advance so all parties are clear in this regard and can react at the appropriate time.

Corrective actions to any of the conservation strategies in the HCP should be based on significant "non-achievement" of the HCP's base mitigation. This does not preclude the Services from working with the applicant to develop a strategy to compensate for external factors (e.g., catastrophic fires) or requesting the applicant to voluntarily increase the base mitigation strategy because of these external factors.

4. Monitoring Measures.

The section 10 regulations require that an HCP specify the measures the applicant will take to "monitor" the impacts of the taking resulting from project actions [50 CFR 17.22(b)(1)(iii)(B) and 50 CFR 222.22(b)(5)(iii)]. Monitoring measures described in the HCP should be as specific as possible and be commensurate with the project's scope and the severity of its effects.

For regional and other large-scale HCPs, monitoring programs should include periodic accountings of take, surveys to determine species status in project areas or mitigation habitats, and progress reports on fulfillment of mitigation requirements (e.g., habitat acres acquired). Monitoring plans for HCPs should establish target milestones, to the extent practicable, or requirements throughout the life of the HCP, and where appropriate, adaptive management options (see Chapter 3, Section B.3(g)).

The following steps are logical elements for consideration in developing HCP monitoring programs for regional or other large-scale HCPs:

- Develop objectives for the monitoring program. Any monitoring program associated with HCPs should answer specific questions or lead to specific conclusions. If the objectives are well-developed, they will help shape a complete monitoring program.

- Describe the subject of the monitoring program--e.g., effects on populations of affected species, effects on the habitat of the species, or effects on both.

- Describe variables to be measured and how the data will be collected. Make sure these are consistent with the objectives of the monitoring program.

- Detail the frequency, timing, and duration of sampling for the variables. Determining how frequently and how long to collect data is important to the success or failure of the monitoring program. If the interval between samples is too long or too short, the monitoring program may not detect an effect. The frequency, timing, and duration of the sampling regimen should also relate to the type of action being evaluated, the species affected by the action, and the response of the species to the effects produced by the action.

- Describe how data are to be analyzed and who will conduct the analyses. A monitoring program is more effective when analytical methods are integrated into the design. For example, parametric and non-parametric statistical analyses require different sample sizes, which affect the frequency, timing, and duration of sampling.

- Monitoring must be sufficient to detect trends in species populations in the plan area but should be as economical as possible. Avoid costly monitoring schemes that divert funds away from other important HCP programs, such as mitigation.

- Monitoring programs can be carried out by a mutually-identified party other than the permittee, so long as this is specified in the HCP, funding is provided, and the party is qualified.

The FWS and NMFS also have a responsibility to monitor the implementation and success of HCPs. The Services may agree to specific monitoring responsibilities under the HCP, Implementing Agreement, or as part of the incidental take statement issued in conjunction with the section 7 biological opinion. Even if not specified in this manner, the agency still has the responsibility to monitor compliance with the terms of particular HCPs, including any adaptive management commitments incorporated into the HCP, and the section 10 program generally. One way to achieve this is to ensure that requirements for monitoring and status reports are included in HCPs where needed and by ensuring that such reports are submitted by permittees and reviewed by FWS or NMFS staff.

For regional HCPs, another way is to establish technical review teams to periodically evaluate HCP compliance and the success of adaptive management programs. Such teams could include species experts and representatives of the permittee, FWS, NMFS, and other affected public agencies. To maintain the credibility of the HCP, it may be beneficial to submit the technical team's findings to occasional review by recognized experts in pertinent fields (e.g., conservation biologists, re-vegetation specialists, etc.).

Not all of the above steps are necessary for small-scale, low-effect HCPs, and should only be used as appropriate.

5. Unforeseen Circumstances/Extraordinary Circumstances.

Congress recognized in the section 10 amendments that "...circumstances and information may change over time and that the original plan might need to be revised. To address this situation the Committee expects that any plan approved for a long-term permit will contain a procedure by which the parties will deal with unforeseen circumstances." (H.R. Rep. No. 97-835, 97th Congress, Second Session). Accordingly, Federal regulation requires such procedures to be detailed in the HCP [50 CFR 17.22(b)(1)(iii)(C)]. At the same time the legislative history states that:

> The Committee intends that the Secretary may utilize this provision to approve conservation plans which provide long-term commitments regarding the conservation of listed as well as unlisted species and long-term assurances to the proponent of the conservation plan that the terms of the plan will be

> adhered to and that further mitigation requirements will only be imposed in accordance with the terms of the plan. In the event that an unlisted species addressed in the approved conservation plan is subsequently listed pursuant to the Act, no further mitigation requirements should be imposed if the conservation plan addressed the conservation of the species and its habitat as if the species were listed pursuant to the Act." (H.R. Report No. 97-835, 97th Congress, Second Session, and 50 FR 39681-39691.)

This Congressional history illustrates the potential tension between two primary goals of the HCP program: (1) adequately minimizing and mitigating for the incidental take of listed species, and (2) providing regulatory assurances to section 10 permittees that the terms of an approved HCP will not change over time, or that necessary changes will be minimized to the extent possible, and will be agreed to by the applicant. How to reconcile these objectives remains one of the central challenges of the HCP program.

"Unforeseen circumstances," also referred to as "extraordinary circumstances," in the past have been broadly defined to include a variety of changing circumstances that may occur over the life of an ongoing HCP. However, it is important to distinguish between the terms "unforeseen circumstances," or "extraordinary circumstances," versus "changed circumstances." "Changed circumstances" are not uncommon during the course of an HCP and can reasonably be anticipated and planned for (e.g., the listing of new species, modifications in the project or activity as described in the original HCP, or modifications in the HCP's monitoring program). "Unforeseen circumstances" or "extraordinary circumstances" however, means changes in circumstances surrounding an HCP that were not or could not be anticipated by HCP participants and the Services, that result in a substantial and adverse change in the status of a covered species.

With respect to anticipated and possible changed circumstances, the HCP should discuss measures developed by the applicant and the Services to meet such changes over time, possibly by incorporating adaptive management measures for covered species in the HCP. HCP planners should identify potential problems in advance and identify specific strategies or protocols in the HCP for dealing with them, so that adjustments can be made as necessary without having to amend the HCP.

The "Unforeseen/Extraordinary Circumstances" section of the HCP should be more limited. It should discuss how those changes in the circumstances surrounding the HCP that cannot effectively be anticipated by HCP negotiators will be dealt with in the future. It must also be consistent with the Department of Interior's and Department of Commerce's "No Surprises" policy.

a. <u>The "No Surprises" Policy</u>.

To address the problem of maintaining regulatory assurances and providing regulatory certainty in exchange for conservation commitments, the Department of the Interior (DOI) and Department of Commerce (DOC) have jointly established a "No Surprises" policy for HCPs.

The "No Surprises" policy sets forth a clear commitment by the FWS, NMFS, DOI, and DOC that, to the extent consistent with the requirements of the Endangered Species Act and other Federal laws, the government will honor its agreements under an approved HCP for which the permittee is in good faith implementing the HCP's terms and conditions. The specific nature of these provisions will vary among HCPs depending upon individual habitat and species needs.

The "No Surprises" policy provides certainty for private landowners in ESA Habitat Conservation Planning through the following assurances:

- In negotiating "unforeseen circumstances" provisions for HCPs, the Fish and Wildlife Service and National Marine Fisheries Service shall not require the commitment of additional land or financial compensation beyond the level of mitigation which was otherwise adequately provided for a species under the terms of a properly functioning HCP. Moreover, FWS and NMFS shall not seek any other form of additional mitigation from an HCP permittee except under extraordinary circumstances.

This means that if unforeseen circumstances occur during the life of an HCP, the FWS and NMFS will not require additional lands, additional funds, or additional restrictions on lands or other natural resources released for development or use, from any permittee, who in good faith, is adequately implementing or has implemented an approved HCP. Once a permit has been issued and its terms are being complied with, the permittee may remain secure regarding the agreed upon cost of mitigation, because no additional mitigation land, funding, or land use restrictions will be requested by the Services. The policy also protects the permittee from any <u>other</u> forms of additional mitigation, except where extraordinary circumstance exist.

Other methods of responding to the needs of the affected species, such as government action and voluntary conservation measures by the permittee, remain available to assure the requirements of the ESA are satisfied.

Consequently, the "No Surprises" policy also provides that:

- If additional mitigation measures are subsequently deemed necessary to provide for the conservation of a species that was otherwise adequately covered under the terms of a properly functioning HCP, the obligation for such measures shall not rest with the HCP permittee.

This means that in cases where the status of a species addressed under an HCP worsens, the primary obligation for implementing additional conservation measures would be borne by the Federal government, other governmental agencies, private conservation organizations, or other private landowners who have not yet developed an HCP.

"Adequately covered" for listed species refers to any species addressed in an HCP which has satisfied the permit issuance criteria under section 10(a)(2)(B) of the ESA. For unlisted species, the term refers to any species which is addressed in an HCP as if it were listed pursuant to section 4 of the ESA, and in which HCP conditions for that species would satisfy permit issuance criteria under section 10(a)(2)(B) of the ESA if the species were listed. "No Surprises" assurances apply only to species that are adequately covered in the HCP. Species should not be included in the HCP permit if data gaps or insufficient information makes it impossible to craft conservation/mitigation measures for them. Such data gaps can be overcome, however, through the inclusion of adaptive management clauses in the HCP (See Chapter 3, Section 3.B(g)).

- If extraordinary circumstances warrant the requirement of additional mitigation from an HCP permittee who is in compliance with the HCP's obligations, such mitigation shall maintain the original terms of the HCP to the maximum extent possible. Further, any such changes shall be limited to modifications within Conserved Habitat areas or to the HCP's operating conservation program for the affected species. Additional mitigation requirements shall not involve the payment of additional compensation or apply to parcels of land available for development or land management under the original terms of the HCP without the consent of the HCP permittee.

This means that if extraordinary circumstances are found to exist, the Services will consider additional mitigation measures; however, such measures must be as close as possible to the terms of the original HCP and must be limited to modifications within Conserved Habitat areas or the HCP's operating conservation program or to lands that are already protected by the HCP. New mitigation measures should not include requirements for additional land protection, payment of funds, or apply to lands available for development or use under the HCP, unless the permittee consents to such additional measures. "Modifications within Conserved Habitat areas or to the HCP's operating conservation program" means limiting such changes to plan areas explicitly designated for habitat protection or other conservation uses, or redirecting or increasing the intensity, range, or effectiveness of conservation efforts in such areas, provided that any such changes do not impose new restrictions or financial compensation on the permittee's activities. For example, if a developer had agreed to dedicate a certain amount of funding annually in support of a particular conservation program (e.g., habitat restoration) but subsequent research demonstrated that greater conservation benefits could be achieved by redirecting funding into depredation control, and extraordinary circumstances warranted such a shift, the No Surprises policy would allow the modification since it would impose no new funding burden on the permittee.

The policy also sets out criteria for determining whether and when extraordinary circumstances arise where the government could request review of certain aspects of the HCP's conservation program.

- The FWS and NMFS shall have the burden of demonstrating that such extraordinary circumstances exist, using the best scientific and commercial data available. Their findings must be clearly documented and based upon reliable technical information regarding the status and habitat requirements of the affected species.

- In deciding whether any extraordinary circumstances exist which might warrant requiring additional mitigation from an HCP permittee, FWS and NMFS shall consider, but not be limited to, the following factors: (a) size of the current range of affected species; (b) percentage of range adversely affected by the HCP; (c) percentage of range conserved by the HCP; (d) ecological significance of that portion of the range affected by the HCP; (e) level of knowledge about the affected species and the degree of specificity of the species' conservation program under the HCP; (f) whether the HCP was originally designed to provide an overall net benefit to the affected species and contained measurable criteria for assessing the biological success of the HCP; and (g) whether failure to adopt additional conservation measures would appreciably reduce the likelihood of survival and recovery of the affected species in the wild.

The first of these two measures, on the burden of proof, is self-explanatory. The second identifies some factors to be considered by the Services in determining whether extraordinary circumstances exist. Generally, the primary focus of inquiry would be level of biological peril to species covered by the HCP in question, and the degree to which the welfare of those species is tied to a particular HCP. For example, if the species is declining rapidly, and the HCP in question encompasses an ecologically insignificant portion of the species' range, then extraordinary circumstances typically would not exist. Conversely, if the HCP in such circumstances encompasses a majority of the species' range, then extraordinary circumstances justifiably could be said to exist.

- The FWS and NMFS shall not seek additional mitigation for a species from an HCP permittee where the terms of a properly functioning HCP agreement were designed to provide an overall net benefit for that species and contained measurable criteria for the biological success of the HCP which have been or are being met.

This provision means that the Services will not attempt to impose additional mitigation measures <u>of any type</u> where and HCP was intentionally designed to have a net positive impact upon a species. It is intended to encourage HCP applicants to develop HCPs that provide an overall net benefit to affected species. It does not mean that any HCP must in

fact have already achieved a net benefit before the "No Surprises" policy applies. Rather, the achievement of such benefits should be measured through a clearly articulated set of biological goals and an adequate monitoring program for measuring progress for achieving those goals.

"Properly functioning HCP" means any HCP whose provisions have been or are being fully implemented by the permittee and in which the permittee is in full compliance with the terms and conditions of the permit.

- Nothing in this policy shall be construed to limit or constrain the Services or any other governmental agency from taking additional actions at its own expense to protect or conserve a species included in an HCP.

This means the Services can intercede on behalf of a species at their own expense at any time and be consistent with the assurances provided the permittee under this policy and the permit. Neither is there anything in the "No Surprises" policy that prevents the Services from requesting a permittee to voluntarily undertake additional mitigation on behalf of affected species, though of course the permittee is under no obligation to comply.

FWS and NMFS have a wide array of authorities and resources that can be utilized to provide additional protection for threatened or endangered species included in an HCP. Therefore, in meeting their commitment under the "No Surprises" policy (consistent with their obligations under the ESA), it is extremely unlikely that the Services would have to resort to protective or conservation action requiring new appropriations of funds by Congress. In such an unlikely event, such actions would necessarily be subject to the requirements of the Anti-Deficiency Act and the availability of funds appropriated by the Congress.

Sample language for including "No Surprises" assurances in the HCP or Implementing Agreements is provided in Sections 8.4 and 13.3(a) of the "template" Implementing Agreement in Appendix 4.

b. HCP Amendments.

Amendment of a section 10(a)(1)(B) permit is required when the permittee wishes to significantly modify the project, activity, or conservation program as described in the original HCP. Such modifications might include significant boundary revisions, alterations in funding or schedule, addition of a species to the permit that was not addressed in the original HCP, or adjustments to the HCP necessitated by unforeseen circumstances. A permit amendment consists of the same process as the original permit application, requiring an amendment to the HCP addressing the new circumstance(s), a Federal Register notice, NEPA compliance, and an intra-Service section 7 consultation.

Some amendments to an HCP commonly needed over the life of a permit are minor and can be incorporated in a more expedited fashion. These types of amendments include corrections in land ownership; minor revisions to survey, monitoring, or reporting protocols; and minor changes in reserve boundaries that result in no net loss of reserve land or do not otherwise alter the effectiveness of the HCP. They can be incorporated into the HCP in one of two ways.

First, the HCP and permit can be formally amended just as with more significant changes. However, documentation requirements are often less for a permit amendment than for the original permit application. For example, the NEPA analysis for the amendment can be tiered off the NEPA analysis for the original permit (40 CFR 1502.20), or the original NEPA analysis can be incorporated by reference into the amendment's supporting documents (50 CFR 1502.21). Also, where an original permit application required an EIS, the amendment application might require an EA only. Where appropriate, a permit amendment can also be treated as a low-effect HCP, which is categorically excluded from NEPA [see Chapter 1, Section F.2].

The HCP can also be amended administratively without formal amendment of the permit itself. This type of expedited amendment procedure is encouraged, but only when: (1) the amendment has the unanimous consent of the permittee and FWS or NMFS; (2) the original HCP established specific procedures for incorporating minor amendments so that the public had an opportunity to comment on the process, and such amendments are consistent with those procedures; (3) the HCP defines what types of amendments are considered minor; (4) a written record of any such amendments is prepared; and (5) the net effect on the species involved and level of take resulting from the amendment is not significantly different than analyzed under the original HCP and the Service's decision documents.

It is important to distinguish between amendments to the HCP and amendments to the permit itself. Changed circumstances might require an amendment to both, but an amendment to either the HCP or the permit without an associated amendment to the other is possible. Minor changes in the HCP can be completed administratively without amending the permit. Similarly, amendment to the permit without a change in the HCP can also occur--for example, when an unlisted species that was addressed in the HCP is subsequently listed and is added to the permit, though permit amendments in such cases are not always necessary. Chapter 4 describes the procedures for addressing unlisted species in section 10 permits. Chapter 6, Section G contains further discussion about permit amendments generally.

6. Funding.

The ESA requires that the HCP detail the funding that will be made available to implement the proposed mitigation program. Measures requiring funding in an HCP typically include onsite measures during project implementation or construction (e.g., pre-construction surveys, biological monitors, exclusion fences, etc.), as well as onsite and offsite measures

required after completion of the project or activity (e.g., revegetation of disturbed areas and acquisition of mitigation lands). Large-scale, regional HCPs should require funds for long-term needs such as biological monitoring and habitat acquisition programs. Some will even require perpetual funding mechanisms to support long-term management of mitigation lands or for monitoring. For low-effect HCPs with minor impacts, funding needs may be limited to activities such as pre-construction, post-construction, habitat restoration, or surveys and payment into a mitigation fund; longer-term funding measures typically are not needed.

For relatively small- to medium-sized projects involving only one or two applicants, the funding source is usually the permittee and funding is provided immediately before project activities commence, immediately after, or in stages. However, when habitat modification or other take occurs before mitigation measures (e.g., acquisition of mitigation lands) are implemented, completion of the mitigation requirements should be ensured through a Letter of Credit or other means [see above, Section B.3].

Funding of regional HCPs can be more complicated because they generally cover large areas, many activities, and require significant budgets. Consequently, regional HCPs usually are funded jointly rather than by any single contributor. Funding strategies for regional HCPs can include: (1) development fees paid on a per-acre (or other) basis; (2) other types of mitigation fees (e.g., water surcharges, fees targeted to specific activities or industries); (3) funds contributed by non-profit or private interests; (4) state or Federal funds; (5) assessment districts under state law or county ordinance; and (6) tax check-off programs.

Because of their size and scope, regional HCPs often face two funding challenges--the costs of developing and implementing the HCP. Funding problems for these HCPs can be especially difficult during the HCP development phase, which typically occurs before funding mechanisms for the completed HCP are in place. Where appropriate, FWS and NMFS personnel should assist local governments in seeking out HCP funding assistance. However, the demand for such funds is likely to grow and the availability of funds to be limited; consequently, guarantees cannot be provided to any particular HCP applicant that funding would be available. Consistent with the requirements of the Anti-Deficiency Act, any commitment of Federal funding is always subject to the availability of appropriated funds.

When perpetual funding is needed, the HCP must establish programs or mechanisms to generate such funds. One way of achieving this is through payment of development fees by the applicant or other affected parties into an interest-bearing bank account, from which the interest, not the principal, is used to fund the program. The HCP should detail fund collection and management mechanisms for this purpose, as well as remedies for failure to meet funding obligations by signatory members. The IA must always contain a provision stating that any Federal funding is subject to the requirements of the Anti-Deficiency Act and the availability of appropriated funds.

Whatever the proposed funding mechanism is, failure to demonstrate the requisite level of funding prior to permit approval or to meet funding obligations after the permit is issued are grounds for denying a permit application or revoking or suspending an existing permit, respectively.

In some cases, conservation funds may be transferred to a government agency to be utilized in furthering the purposes of the HCP. FWS or NMFS can accept contributed funds for mitigation purposes, monitoring, research, permit administration, and other activities. However, because of Federal procedural requirements in administering such funds and the potential for an appearance of a conflict of interests, the FWS Administrative Services Division and Department of the Interior Solicitor's Office (or equivalent office for NMFS) should be consulted before agreeing to any such mechanism.

7. Alternatives Analyzed.

Some applicants find this a difficult element of the HCP because they are uncertain about which or how many alternatives to consider. In some cases, the HCP process may not be initiated until the applicant has planned the project, only to discover that endangered species are present on the project site and an incidental take permit is needed.

The Act requires a description of "alternative actions to such taking." Thus two alternatives commonly included in the "Alternatives Analyzed" section of the HCP are: (1) any specific alternative, whether considered before or after the HCP process was begun, that would reduce such take below levels anticipated for the project proposal; and (2) a "no action" alternative, which means that no permit would be issued and take would be avoided or that the project would not be constructed or implemented. For low-effect HCPs in which the project or impact on endangered or threatened species is minor or negligible, a "no action" alternative alone may suffice.

For some HCPs, several alternatives may have been considered during project development. Each should be discussed in the "Alternatives Analyzed" section; or, where they are too numerous, the principal ones should be discussed. The applicant also must explain in this section why these alternatives were not adopted. If the applicant ultimately selects an alternative that the FWS or NMFS agrees will not result in take, no section 10 permit or NEPA compliance is needed. Chapter 3, Section B.7 explains how the alternatives analysis requirements under section 10 and NEPA compare.

Permit applicants commonly ask whether economic considerations can be cited as a reason for rejecting project alternatives. Such considerations are permissible, especially when the effects on the applicant would be significantly adverse or economically infeasible. However, if economic considerations are the basis for rejecting alternatives, data supporting this decision must be provided to the extent that it is reasonably available and non-proprietary. While applicants may be hesitant to provide such information, it can be important in making

the required finding that the HCP represent minimization and mitigation to the maximum extent practicable.

Neither the FWS nor NMFS have the authority to impose a choice among the alternatives analyzed in the HCP. The Services' role during the HCP development phase is to advise the applicant in developing an acceptable HCP, and, when necessary to try to dissuade the applicant from selecting alternatives not consistent with permit issuance criteria. Nevertheless, if the applicant proceeds with such an alternative, recognizing the increased chance of denial of the permit, the Services must process the application and provide an opportunity for Federal Register notice and public comment (see Chapter 6, Section D).

8. Additional Measures - Implementing Agreements.

Whether or not an Implementing Agreement should be prepared for a given HCP will depend on the size and scope of the HCP and the wishes of either the Services or the applicant. Implementing agreements are not required for low-effect HCPs, and should be done only when one is requested by the permit applicant. In other HCPs, the development of the IA is left to the discretion of the Regional Director. Implementing Agreements are recommended for regional or other large-scale HCPs that address significant portions of a species range or involve numerous activities or landowners, for HCPs with long-term mitigation and monitoring programs, or where habitat protection programs are complicated or have other special features.

Section 10(a)(2)(B) of the ESA--which describes issuance criteria for incidental take permits--authorizes the Services to obtain "such other assurances as [they] may require that the plan will be implemented." This provision allows the Services broad latitude to require measures as necessary to accommodate the wide variety of circumstances often encountered in HCPs.

Implementing Agreements can help assure the government that the applicant will implement the mitigation program and other conditions of the HCP, while assuring the applicant that agreed upon procedures will be followed for any changes in the conditions of the permit or the conservation measures for species addressed in the HCP. Although the Services and permit applicant possess these rights and responsibilities under the permit, both sides may prefer the additional specificity of an Implementing Agreement because the Agreement is tailored for the HCP in question, can be more detailed than the permit conditions, and is signed by all parties, thus providing the explicit consent of each party to abide by the terms of the HCP.

Implementing Agreements can also strengthen a Finding of No Significant Impact under NEPA by ensuring implementation of the mitigation program. This can be especially important for "mitigated EAs" [see Chapter 5, Section A.3(a)]. They can also extend responsibilities under an HCP beyond the life of the permit itself (e.g., by requiring perpetual

protection of mitigation lands) and can set out a process for implementing the assurances under the "No Surprises" policy [see above, Section B.5(a)].

Typically, an Implementing Agreement includes one or more of the following elements: (1) defines the obligations, benefits, rights, authorities, liabilities, and privileges of all signatories and other parties to the HCP; (2) assigns responsibility for planning, approving, and implementing specific HCP measures; (3) specifies the responsibilities of the FWS, NMFS, or other state and Federal agencies in implementing or monitoring the HCP's conservation program; (4) provides for specific measures when habitat acquisition, transfer, or other protections are part of the HCP's mitigation program; (5) establishes a process for amendment of the HCP, where necessary; and (6) provides for enforcement of HCP measures and for remedies should any party fail to perform on its obligations under the HCP.

The handbook delegates to the Regional Directors (or, where appropriate, the NMFS Director, Office of Protected Resources in Washington, D.C.) the discretion to decide if HCP Implementing Agreements are beneficial on a case-by-case basis. IAs are not done for low-effect HCPs unless requested by the applicant. Each Regional Director or the NMFS Office of Protected Resources Director shall determine the circumstances under which Implementing Agreements may be required for HCPs under his or her respective jurisdiction.

Chapter 6, Section B.2(g) provides further information about developing and processing Implementing Agreements. Appendix 4 contains a "template" Implementing Agreement that can be used to develop Agreements for individual projects. The template is intended to expedite development of Implementing Agreements for HCPs, because it identifies the basics needed for developing Agreements. The template has all necessary legal elements for Agreements for HCPs except project-specific information, which can be filled in as indicated.

## C. Alternative HCPs

1. Addressing Species Through Habitat-Based HCPs.

Most of the HCPs that are being developed address the requirements of section 10(a)(2) on a species-by-species basis. A smaller number of HCPs, however, have focused on specific types of habitat rather than on a particular listed species. The rationale for a habitat-based approach is that if certain habitat-types are scientifically selected and assessed, and adequately protected under the terms of the HCP, the HCP could protect a broader range of species than the few "target" species that might otherwise be addressed by a conventional HCP. This approach may address all species within habitat-types within the plan area, or habitat-types in conjunction with a specific list of species that will be covered by the permit.

HCPs developed in conjunction with the Natural Communities Conservation Program in Southern California are examples of habitat-based HCPs. The State of California, under the Natural Community Conservation Planning Act of 1991 (NCCP), has initiated a program to

conserve populations of California native animal and plant species and their habitats in areas large enough to ensure their long-term viability. The initial NCCP effort is focusing on the coastal sage scrub community in southern California for the development of subregional HCPs.

In the habitat-based approach, a particular habitat type within a planning area is selected and then adequately addressed in the HCP, based on criteria agreed to by the Services and the applicant. The Service and the applicant generally use indicator species to set management parameters for the covered habitat in the HCP. A further test must be completed to ensure that the needs of all endemic and sensitive species (listed, proposed, candidate, or species of concern) associated with the covered habitat types are adequately addressed in the HCPs.

An entire list of known covered species (listed and unlisted) adequately addressed in the habitat-based HCP could also be included on a permit. This list may include proposed and candidate species; however, since such species are only subject to State--as opposed to Federal--jurisdiction, there should be a delayed effective date for the permit for such species. That delayed effective date should be the date the affected species is subsequently listed. Including an unlisted species on the permit in this way requires that the Services analyze the effects of the proposed HCP on that species under sections 7 and 10 of the ESA, just as if that species were listed. Under this method, the assurances of the "No Surprises" policy would apply to all covered species associated with the habitat-type as described in the list of species that are adequately covered in the HCP. If an unlisted species, which was adequately covered by the HCP and listed on the permit, is subsequently listed after permit issuance, the HCP permit would not have to be formally amended because all procedural permit requirements for these species were met when the permit was originally issued and the species was included on the permit with the delayed effective date (the subsequent date of listing). However, if an unlisted species associated with a habitat-type adequately covered in the HCP is subsequently listed, and it was not originally included on the permit, the Services would have to formally amend the permit and satisfy all procedural permit amendment requirements before it could authorize incidental take.

Prior to amending the permit, the applicant would have to make sure the species was adequately addressed in the HCP, and the Services would have to conduct independent assessments of the proposed actions under section 7 of the Act, make findings under section 10 of the ESA, and also ensure that the HCP complies with NEPA. Including covered species (listed and unlisted) in the original permit will help eliminate additional work associated with amending the permit, minimize duplication of effort, and minimize the cost associated with developing an HCP.

Habitat-based HCPs are new to the section 10 program and the Service is exploring this approach carefully. Adaptive management clauses (see Chapter 3, Section B.3(g)) may be helpful in defining where data gaps or uncertainty exists and, thus, areas where the Service and the applicant agree future modifications to the HCP may be needed. For further

information about habitat-based HCPs, contact the Washington, D.C. Division of Endangered Species Section 10 Coordinator (FWS) or the Washington, D.C. Office of Protected Resources (NMFS).

2. Programmatic HCPs.

The programmatic HCP is a relatively new concept that has begun to emerge recently in HCPs developed with the FWS. The FWS has begun to develop programmatic HCPs for County and State governments, such as the "state-wide" HCP being developed with the State of Georgia for the red-cockaded woodpecker. The programmatic HCP allows numerous entities to be involved in the HCP through "Certificates of Inclusion" or "Participation Certificates," which convey the take authorization of the official section 10(a)(1)(B) permit to the certificate recipient. A programmatic HCP can be used to address a group of actions as a whole, rather than one at a time in separate HCPs. For example, a programmatic HCP might address a single related action occurring in many different places (e.g., the development of single family houses in the same vicinity or the harvesting of trees in the presence of red-cockaded woodpeckers), or address a group of different actions occurring in the same place. Programmatic HCPs can reduce staff and preparation time, but are appropriate only in certain types of situations.

The central problem in preparing a programmatic HCP is having sufficient information to determine and evaluate effects when the exact number and scope of actions taking place may be uncertain. As a result, programmatic HCPs will be successful only when the activities being addressed are well-defined, similar in nature, and occur within a described geographical area or at similar points in time.

Because this is a relatively new concept, the Service strongly encourages that programmatic HCPs be developed in conjunction with the Regional and Washington Office. In addition, this type of a section 10(a)(1)(B) permit should not be issued to representatives of Federal agencies since section 7 is the correct avenue for dealing with "may effect" situations and possible incidental take by Federal agencies.

NMFS provides for "Certificates of Inclusion" in its regulations (50 CFR 222.22(f)). Certificates are issued by NMFS to any individual who wishes to conduct an activity covered by a general incidental take permit. The general permit can be applied for by any group or organization whose members conduct the same or similar activity and have the same or similar impacts on endangered marine species. For example, a fisheries organization or a state regulatory agency may apply for a general incidental take permit so that "Certificates of Inclusion" would then be required by its members or regulated entities. These groups also may apply for a standard permit. Applicants should discuss the alternatives with NMFS to determine which is the most appropriate.

**D. Addressing Migratory Birds and Eagles (FWS Only)**

In the past, section 10 applicants faced an additional issue when listed migratory birds or bald eagles occurred in an HCP planning area. The Migratory Bird Treaty Act (MBTA) and Bald and Golden Eagle Protection Act (BGEPA) prohibit the take of migratory birds and bald eagles, respectively. Consequently, questions have arisen as to whether a section 10 permittee remained legally liable for the incidental take of listed species protected by the MBTA and BGEPA, if take of the same species was authorized by an ESA section 10 permit.

This situation has now been clarified. The FWS has concluded that under certain conditions, a section 10 permit for listed migratory birds is sufficient to relieve an HCP permittee from liability under the MBTA and BGEPA for those species covered by the HCP permit. For the MBTA, this is accomplished by having the HCP permit double as a Special Purpose Permit authorized under 50 CFR § 21.27. For BGEPA, it is accomplished by utilizing the FWS's prosecutorial discretion to state that FWS would not prosecute an incidental take under the BGEPA if such take is in compliance with an ESA section 10 permit. However, the following conditions must be satisfied before either of these protections apply: (1) any species to be so treated with respect to the MBTA and BGEPA must also be listed under the ESA; and (2) the incidental take of any such species must be authorized, subject to applicable terms and conditions, under section 10(a)(1)(B) of the ESA (see Appendix 5). The Service believes that this approach is warranted because the permittee already would have agreed to a package of mitigation measures designed to minimize and mitigate the take of the listed species of migratory birds to the maximum extent practicable.

In qualifying cases, the following language concerning MBTA- and BGEPA-protected species shall be included in the terms and conditions of a section 10 permit when the above conditions have been satisfied:

> *[For listed species other than the bald eagle]* This permit also constitutes a Special Purpose Permit under 50 CFR § 21.27 for the take of *[provide species' common and scientific names; species must be ESA-listed and may not include the bald eagle]* in the amount and/or number and subject to the terms and conditions specified herein. Any such take will not be in violation of the Migratory Bird Treaty Act of 1918, as amended (16 U.S.C. §§ 703-712).
>
> *[For the bald eagle]* The Service will not refer the incidental take of any bald eagle, *Haliaeetus leucocephalus*, 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.

**E. Coordinating HCPs With National Wildlife Refuges (FWS Only)**

National Wildlife Refuges (NWRs) occur nationwide, and HCPs are now being developed in most areas of the country. When planning efforts under these two programs occur in the same geographic vicinity, it creates significant opportunities for joint NWR/HCP habitat protection programs in which the two programs can support and complement each other. However, it also raises important questions regarding the relationship between the two programs--e.g., what are the government's and permittee's respective roles and responsibilities in such joint NWR/HCP efforts, and how should such programs be jointly managed?

The FWS has developed a policy to assist its offices and staff in integrating the NWR and HCP programs. In brief, the policy states that the primary objective of integrating any NWR with an HCP is to increase benefits to the species involved, and that a NWR is not to be established or integrated with an HCP merely to substitute for the mitigation responsibilities of the section 10 permittee. This policy and additional guidance about integrating HCPs with National Wildlife Refuges is provided in Appendix 6.

### F. "Safe Harbor" Policy: Linking Safe Harbor Assurances to Habitat Conservation Plans

The "Safe Harbor" approach is a strategy that provides private landowners, who undertake voluntary conservation actions on their lands, assurances that their future land-use activities will not be restricted further as a result of these proactive conservation efforts. If a landowner voluntarily enters into an agreement to manage his or her lands in a manner that attracts endangered or threatened species or otherwise increases their presence, the "Safe Harbor assurances" guarantee no additional regulatory requirements for those lands will be imposed on the landowners as a result of the proactive conservation measures. The purpose of the "Safe Harbor" approach is to reduce the disincentives (e.g., fear of regulatory restrictions) that often cause landowners to avoid or prevent land use practices that would otherwise benefit endangered species.

If it is determined that it is appropriate to link Safe Harbor assurances with HCPs, specific directions for incorporating will be described in a forthcoming final Safe Harbor policy (see Appendix 7). [Note: If the draft Safe Harbor policy has not been published in the Federal Register by the time this guidance is published, Appendix 7 will be reserved for this policy.]

The Services are currently considering whether, and if so, under what circumstances, it may be appropriate to allow a landowner to link a Safe Harbor Agreement to an HCP. The Services intend to submit this issue for further public analysis and comment.