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**Department of the
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Administration**

**Availability of a Final Addendum to the
Handbook for Habitat Conservation
Planning and Incidental Take Permitting
Process; Notice**

DEPARTMENT OF THE INTERIOR**Fish and Wildlife Service****DEPARTMENT OF COMMERCE****National Oceanic and Atmospheric Administration**

[Docket No. 981208299-0049-02]

RIN:1018-AG06, 0648-XA14

Notice of Availability of a Final Addendum to the Handbook for Habitat Conservation Planning and Incidental Take Permitting Process

AGENCIES: Fish and Wildlife Service, Interior, and National Marine Fisheries Service, National Oceanic and Atmospheric Administration, Commerce.

ACTION: Notice of final policy.

SUMMARY: The Fish and Wildlife Service and the National Marine Fisheries Service (the Services) are publishing a final addendum to the Handbook for Habitat Conservation Planning and Incidental Take Permitting Process (HCP Handbook). This addendum, which is also known as the five-point policy guidance, is printed entirely within this notice. Like the HCP Handbook, the addendum provides clarifying guidance for the Services in conducting the incidental take permit program and for those applying for an incidental take permit under section 10(a)(1)(B) of the Endangered Species Act (ESA). This guidance will promote efficiency and nationwide consistency within and between the Services and improve the Habitat Conservation Planning program.

DATES: This policy is effective July 3, 2000.

ADDRESSES: Chief, Division of Endangered Species, U.S. Fish and Wildlife Service, 4401 North Fairfax Drive, Room 420, Arlington, Virginia 22203 (facsimile 703/358-1735); or Chief, Endangered Species Division, Office of Protected Resources, National Marine Fisheries Service, 1315 East-West Highway, Silver Spring, Maryland 20910 (facsimile 301/713-0376).

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SUPPLEMENTARY INFORMATION:**Background**

The Endangered Species Act (ESA) was amended in 1982 to allow the Secretaries to authorize the taking of listed species incidentally to an otherwise lawful activity by non-Federal entities such as states, counties, local governments, and private landowners (section 10(a)(1)(B)). To receive a permit, the applicant submits a conservation plan (also referred to as an HCP) that meets the criteria included in the ESA and its implementing regulations (50 CFR parts 17 and 222).

The section 10 incidental take permitting process (or HCP process) provides additional flexibility for landowners by including planning for unlisted species, which enables the process to embrace an ecosystem and landscape-level approach. This proactive approach can reduce future conflicts and may even preclude listing of species, furthering the purposes of the ESA. As the Services have made many refinements to the process, we have also experienced tremendous growth in the demand for Habitat Conservation Plans (HCPs) in recent years. In 1992, 14 HCPs had been approved. As of today, we have more than 260 HCP permits covering more than twenty million acres of land, providing conservation for approximately 200 listed species. More than 200 HCPs are under some stage of development. The HCP process provides an opportunity to develop strong partnerships with local governments and the private sector.

Based on the Services' experience in developing HCPs and lessons learned since 1983, the Services developed comprehensive guidance on conducting the incidental take permit program. This guidance was developed into the HCP Handbook, which was made available for public review and comment on December 21, 1994 (59 FR 65782). It was issued in final form on December 2, 1996 (61 FR 63854).

With the 1982 amendments, Congress envisioned and allowed the Federal government to provide regulatory assurances to non-Federal property owners through the section 10 incidental take permit process. We decided that a clearer policy associated with the permit regulations in 50 CFR 17.22, 17.32, and 222.307 regarding the assurances provided to landowners entering into an HCP was needed. This prompted us to develop the "No Surprises" policy, which was based on the 1982 Congressional Report language and a decade of working with private landowners during the development and implementation of HCPs. The

Services believed that non-Federal property owners should be provided economic and regulatory certainty regarding the overall cost of species conservation and mitigation, provided that the affected species were adequately covered, and the permittee was properly implementing the HCP and complying with the terms and conditions of the HCP, permit, and Implementing Agreement (IA), if used. The Services codified the "No Surprises" policy into a final rule, 50 CFR 17.22(b)(5), 17.32(b)(5) and 222.307(g), on February 23, 1998 (63 FR 8859). It was at this time that the Services announced our intent to revise the HCP Handbook, both to reflect the final No Surprises rule and to further enhance the effectiveness of the HCP process in general through expanded use of five concepts, including permit duration, public participation, adaptive management, monitoring provisions, and biological goals.

On March 9, 1999, the Services published the draft five-point policy (64 FR 11485) for public review and comment. This notice establishes the five-point policy as a final addendum to the HCP Handbook. The addendum supplements the HCP Handbook and No Surprises final rule and will be applied within the context of the existing statute and regulations. This final addendum is considered agency policy, and the Services are fully committed to its implementation. The concepts and definitions of terms used in the addendum are found in the ESA, implementing regulations, and HCP Handbook. Further information about HCPs may be obtained from the FWS webpage at <http://www.fws.gov/r9endspp/hcp/hcp.html>.

Summary of Comments Received

The Services received more than 200 letters of comment on the draft addendum from individuals, conservation groups, trade associations, local governments, Federal and State agencies, businesses and corporations, and private organizations. Because most of these letters included similar comments (many were form letters) we grouped the comments according to issues. We further divided these issues into two sets. The issues in the first set deal with the policy as a whole and HCPs in general. The issues in the second set pertain to the individual sections of the policy and are organized accordingly. The following is a summary of the relevant comments and the Services' responses.

General Five-Point Policy or HCP Issues

Issue 1: Many commenters were concerned that the policy would not be complied with unless it was regulatory in nature and, therefore, suggested codifying the policy into regulation rather than issuing the addendum as policy.

Response 1: We believe that publishing the addendum as policy at this time is appropriate, because, like the HCP Handbook itself, the addendum provides specific guidance for implementation of the statute and regulations. The intent of the addendum is to clarify the concepts identified in existing policy and regulations and ensure consistency in their use. The Services will follow the guidance in the HCP Handbook including this addendum.

Issue 2: Many commenters stated that HCPs should incorporate recovery goals. The comments were primarily referring to the biological goals of the HCP, but also requested the incorporation of recovery goals into adaptive management and monitoring. Other comments included the suggestion of minimum scientific standards for the five points addressed in the addendum or for HCPs in general. Conversely, one commenter stated that biological goals and objectives should simply be that the HCP "not appreciably reduce the likelihood of survival and recovery," which is one of the statutory criteria for permit issuance. Other suggested methods of incorporating recovery into HCPs include developing an overall strategy of recovery that includes HCPs, or tying adaptive management back into the recovery goals of a species.

Response 2: The HCP program standards are contained within the statutory and regulatory criteria. Two of the statutory criteria for obtaining an incidental take permit are that the proposed activity, along with the HCP, does not appreciably reduce the likelihood of survival and recovery of the species, and that the HCP minimizes and mitigates the impact of the taking to the maximum extent practicable. The Services believe that guidance is necessary for identifying biological goals and objectives that translate these statutory and regulatory criteria or standards into meaningful biological measures, specific to a particular HCP situation and in a manner that will facilitate monitoring.

The Services also agree that the biological goals and objectives should be consistent with recovery but in a manner that is commensurate with the scope of the HCP. Under section 10 of the ESA, we do not explicitly require an

HCP to recover listed species or contribute to the recovery objectives outlined in a recovery plan, but do not intend to permit activities that preclude recovery. This approach reflects the intent of the section 10(a)(1)(B) incidental take permit process to provide for authorization of incidental take, not to mandate recovery. However, the extent to which an HCP may contribute to recovery is an important consideration in any HCP effort, and applicants should be encouraged to develop HCPs that produce a net positive effect on a species. The Services can use recovery goals to frame the biological goals and objectives. Recovery plans are also used as sources for possible minimization and mitigation measures for the HCP.

If a recovery plan is not available, we must rely upon other available sources of biological information to encourage the development of HCPs that would aid in a species' recovery. If a recovery plan is available, the Services and applicants should refer to it for information on uncertainty associated with the species' biology and/or its conservation in order to determine if an adaptive management strategy is necessary.

By defining what adaptive management means for HCPs in the addendum, we established a standard for its use. An adaptive management strategy is used to address significant uncertainty associated with a particular HCP, but it is not practicable (or possible) to require that all adaptive management strategies impose an elaborate experimental design. However, an adaptive management strategy must be tied to the biological goals and objectives of the HCP and based on the best scientific information available. We may also obtain strategies to deal with the uncertainty from recovery plans that can be incorporated into an HCP's adaptive management program.

Similarly, a monitoring program's standard for HCPs is based on the best scientific information available, but an HCP's monitoring program also is scaled to the particular HCP. The Services should be aware of the types of monitoring programs that are ongoing in order to coordinate efforts between HCPs. It may be more economical for smaller HCPs to participate in larger monitoring programs by contributing to or incorporating those programs.

Issue 3: Many comments referred to the No Surprises policy, requesting either an increase or decrease in the amount of assurances associated with incidental take permits.

Response 3: The Services published the final rule on the No Surprises policy

on February 23, 1998 (63 FR 8859). The final rule codified into 50 CFR parts 17 and 222 the nature of the assurances provided to incidental take permittees. All permits issued after March 25, 1998, under section 10(a)(1)(B) of the ESA receive No Surprises assurances as specified in 50 CFR 17.22(b)(5), 17.32(b)(5), 222.307(g), and 222.307(h). This policy addendum does not alter the assurances provided to permittees by regulation.

The No Surprises assurances apply only to incidental take permits issued in accordance with the requirements of the Services' regulations where the HCP is properly implemented. The assurances extend only to those species adequately covered by the HCP. The term "No Surprises" refers to regulatory assurances, *not* biological assurances, and applies only to the extent of mitigation required by the incidental take permit in response to unforeseen circumstances or changed circumstances not provided for in the HCP. Specifically, permittees, who are properly implementing their HCP, will not be required to provide additional conservation and mitigation measures involving the commitment of additional land, water or financial compensation or additional restrictions on the use of land, water, or other natural resources without their consent.

The No Surprises assurances encourage contingency planning. Changes in circumstances that can be reasonably anticipated during the implementation of an HCP can be planned for in the HCP. Such HCPs should describe the modifications in the project or activity that will be implemented if these circumstances occur. Precisely because nature is so dynamic, planning for changed circumstances and adopting adaptive management strategies within the HCP, permit, or IA, if used, will better serve both the needs of permittees and endangered species conservation.

Issue 4: Based largely on a study on HCPs supported by the American Institute of Biological Sciences and National Center for Ecological Analysis and Synthesis, several commenters raised questions about biological uncertainty in decisions to issue incidental take permits. Some commenters requested a moratorium on issuing 10(a)(1)(B) incidental take permits, stating that there is not enough known about the species to lock in long-term conservation actions provided by HCPs and the assurances given with these permits. One commenter specifically stated that incidental take permits should not be issued if there is any uncertainty. Instead, efforts should

be spent on filling those data gaps before issuing permits.

Response 4: The Services believe that covered species, both listed and unlisted, will be afforded more protection because of the conservation measures gained through the HCP process. Permitting incidental take that includes carefully constructed conservation actions will benefit most covered species. Part of the careful construction of an HCP is incorporation of contingency plans, whether it is through planning for changed circumstances or developing and implementing an adaptive management strategy.

A moratorium on incidental take permits would not serve species or the public well and would not be in accordance with the ESA. Section 10(a)(2)(B) of the ESA states that an incidental take permit that meets the issuance criteria shall be issued. The partnerships this program encourages are needed to promote endangered and threatened species conservation on non-Federal lands.

The Services appreciate the suggestions provided in the study sponsored by the American Institute of Biological Sciences and the National Center for Ecological Analysis and Synthesis. Nevertheless, we believe, and the study confirmed, that the HCPs currently in place are based on the best available scientific and commercial information. If we lack critical information regarding the biological needs of a species proposed to be covered under an HCP, we will not issue the permit until such information is obtained or an acceptable adaptive management strategy is incorporated into the HCP to address the uncertainty.

Issue 5: Some comments stated that the addendum should allow citizen suits to ensure that permittees are properly implementing their HCPs.

Response 5: The addendum does not in any way alter the ability of citizens to bring lawsuits using the citizen suit provision of the ESA.

Issue 6: One commenter stated that the addendum should provide for compensation for loss of Tribal resources due to implementation of HCPs.

Response 6: The Secretarial Order regarding American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act was issued on June 5, 1997, by the Secretaries of the Interior and of Commerce pursuant to the ESA, the Federal-Tribal trust relationship, and other Federal law. This Order clarifies the responsibilities of the Services when ESA actions affect, or may affect, Indian

lands, tribal trust resources, or the exercise of American Indian tribal rights. The order does not require HCP applicants to include the tribes in actual negotiations or require compensation for loss of Tribal resources.

Issue 7: One comment stated that the draft addendum did not adhere to the policy on the use of plain English in Government documents.

Response 7: The final addendum is written to incorporate the principles of plain English. However, most of the concepts within this addendum and within the HCP Program are biological or otherwise technical in nature. Therefore, we must use certain terminology that is associated with those concepts.

Issue 8: One commenter suggested that all five points addressed by the addendum should be proportional to the scale of the HCP.

Response 8: The Services agree that application of each of the 5 points (*i.e.*, the biological goals and objectives, an adaptive management strategy, the monitoring program of an HCP, the determination of the duration of an incidental take permit, and the scope of public involvement) should be commensurate with the scope of the HCP. Each individual section within the addendum discusses the relationship between each of the five points and the scope of the HCP.

Biological Goals Issues

Issue 9: There were comments about who should determine the biological goals and objectives of an HCP. One commenter suggested that the person(s) with the most experience with the species should determine the biological goals and objectives of an HCP. Additional comments suggested that we confer with State agencies in determining biological goals and objectives. Another commenter stated that the Services should provide applicants assistance in developing the biological goals and objectives.

Response 9: In addition to the applicants, the Services play an integral role in determining the biological goals and objectives. We agree that species experts should be consulted during development of an HCP, including determining the biological goals and objectives. We have revised the biological goals and objectives section to articulate the methods available for their development. Service biologists frequently confer informally with species experts or other specialty experts (*e.g.*, population modeling, habitat assessment, restoration).

The Services also agree that State agencies should be involved with HCPs,

including HCPs that cover non-listed species, and we encourage applicants to include the State wildlife agencies during the development of their HCPs. The addendum reflects this commitment.

Issue 10: There were comments about whether species would benefit more from habitat-based biological goals versus goals specific to the number of individuals or populations. Some suggested that habitat-based goals would be sufficient. Others stated that there should only be species-based goals and that they should account for all life stages of that species and any natural fluctuations in population levels.

Response 10: As discussed in the draft addendum, an appropriate HCP biological goal for a species will depend upon the particular species, the nature of the impact, the nature of the conservation measures in the HCP, and to what extent the populations or other ecological factors fluctuate. The addendum states the following:

The biological goals and objectives may be either habitat or species based. Habitat-based goals are expressed in terms of amount and/or quality of habitat to be achieved. Species-based goals are expressed in terms specific to individuals or populations of that species. Complex multispecies or regional HCPs may use combination of habitat- and species-specific goals and objectives. However, according to 50 CFR 17.22, 17.32, 222.102, and 222.307, each covered species must be addressed as if it were listed and named on the permit. Although the goals and objectives may be stated in habitat terms, each covered species that falls under that goal or objective must be accounted for individually.

The Services chose to broadly define the application of biological goals and objectives, not only in terms of whether they should be habitat-based or species-based, but also how the goals and objectives should be measured (*e.g.*, numbers, life history stages, acres). This broad definition allows for flexibility in determining appropriate biological goals and objectives. The Services and applicants must determine the appropriate unit of measure such as numbers of individuals at a particular life stage, all lifestages, or quantity or quality of habitat for each individual HCP. The Services and applicants should also consult with appropriate experts to determine those goals (see above discussion).

Regardless of the type of goal used, at some point, all HCPs must undergo a species by species analysis. If an HCP is planned on a habitat basis, a species-by-species analysis must be made to determine if the HCP adequately covers the species. The relationship of habitat goals to specific species will help the

Services and applicant determine if a species is adequately covered by an HCP. Also, this consideration of individual species provides a safety net for those species that may not neatly fit into a purely habitat-based plan. For example, populations of a narrow endemic species that occur within a wider ranging habitat type may not be adequately covered by an HCP that depends solely on amount of habitat conserved in a broad general area and does not specify particular locations where the habitat for that species is conserved.

Issue 11: Some commenters addressed quantifying take within an HCP and during its implementation. Some stated that quantifying take should not be required, and others stated that it should always be required.

Response 11: Although identifying the amount or extent of take within an HCP and the permit does not directly refer to development of biological goals and objectives, it is related and will be addressed here. Section 10(a)(2)(A) requires that an HCP specify the impact which will likely result from the take to be permitted. Both Services require applicants to include certain information about the species to be covered by an HCP. FWS permit application criteria require identification of the number, age, and sex of such species, if known (50 CFR 17.22, 17.32). NMFS application criteria require a description of the anticipated impact, including amount, extent, and type of anticipated taking (50 CFR 222.307). While evaluating an HCP, we use the amount of incidental take as a main indicator of the impact the proposed project will likely have on the species. Identifying the amount of incidental take contributes to the analysis of whether the proposed incidental take permit will appreciably reduce the likelihood of survival and recovery of the species.

There are situations where precisely quantifying the number of individuals that are anticipated to be taken is a less effective method than estimating the amount or extent of take in terms of the amount of habitat altered. What is most important is that we are able to assess the impact of the anticipated take on the species. Regardless of how the incidental take is quantified, it must be indicated in the biological opinion the Services complete for the issuance of the permit and on the permit itself.

Adaptive Management Issues

Issue 12: Many commenters raised the issue as to the correct definition, and, therefore, correct application of adaptive management. Additionally,

these commenters stated that under the "scientific definition" of adaptive management, true adaptive management is impossible under No Surprises.

Response 12: The Services recognize the use of the term within the scientific literature. However, the phrase "adaptive management" is used in many other disciplines and contexts and has different meanings to different people. The scientific definition typically follows Holling (1978) and Walters (1986) (see also Walters and Holling, 1990; McLain and Lee, 1996; Walters 1997). This definition is described as a process that tackles the uncertainty in management of natural resources through experimentation. Most frequently, this involves modeling to determine a course of action for on-the-ground implementation with monitoring to test the model's predictions. Walters (1986) breaks down categories of learning through implementation as "active" and "passive" adaptive management. Passive adaptation is where information obtained is used to determine a single best course of action. Active adaptation is developing and testing a range of alternative strategies (Walters and Holling 1990). For the purposes of the HCP program, we are defining adaptive management as a method for examining alternative strategies for meeting measurable biological goals and objectives, and then, if necessary, adjusting future conservation management actions according to what is learned.

The Services are incorporating a broad perspective of adaptive management, with the key components that make an adaptive process in HCPs meaningful. These components include careful planning through identification of uncertainty, incorporating a range of alternatives, implementing a sufficient monitoring program to determine success of the alternatives, and a feedback loop from the results of the monitoring program that allows for change in the management strategies. Because the Services and applicant provide these elements up front in the HCP, they are consistent with No Surprises.

The addendum makes a distinction between adaptive management that would have a more experimental approach versus contingency planning for the implementation of measures in the event of changed circumstances where there is little uncertainty. An HCP can provide provisions for changed circumstances that does not involve adaptive management.

Issue 13: One commenter stated that all HCPs should contain adaptive management.

Response 13: As stated in the addendum, the Services will incorporate adaptive management strategies when appropriate. Adaptive management is necessary for those plans "that would otherwise pose a significant risk to the species at the time the permit is issued due to significant data or information gaps." Not all HCPs warrant adaptive management, although any HCP may incorporate an adaptive management strategy if agreed upon by the applicant and the Services.

In addition, the ability for applicants and the Services to build contingency measures into an HCP's operating conservation strategy does not depend solely on the use of adaptive management. For instance, the No Surprises final rule provides for planning for changed circumstances. This planning involves providing alternative actions for possible events that may alter the ability of an HCP to meet its biological goals and objectives. An adaptive management strategy would not be necessary if there were no significant uncertainty associated with identifying appropriate responses to potential changed circumstances.

Issue 14: One commenter stated that adaptive management not only increases the complexity of an HCP (and, therefore, the time and effort involved in its development and implementation), but the uncertainty poses an economic risk to permittees.

Response 14: We agree that adaptive management may increase the complexity of an HCP. However, adaptive management strategies should be commensurate with the scope of the HCP (e.g., the smaller the scope or impacts, the less complex the HCP and any adaptive management if warranted). Additionally, all HCPs must meet statutory and regulatory issuance criteria prior to approval and issuance of a permit. Adaptive management is one tool available to applicants and the Services that can be used to meet the issuance criteria. It is also a means for increasing the flexibility of an HCP. A results-oriented implementation program lets a permittee apply a number of different methods for achieving a certain goal, rather than adhering to an inflexible list of prescriptions. A results-oriented program actually provides some certainty to the permittee by establishing a framework to modify the operating conservation strategy. Results are periodically assessed, and, if shortcomings are evident, previously agreed-upon alternative strategies are implemented, thereby streamlining

additional discussions between the Services and permittee.

Setting the sideboards and structure during development of the HCP provides applicants certainty in the extent of requirements for implementing an adaptive management strategy. As stated in the No Surprises final rule, we will not require a permittee to make additional mitigation commitments, including any adaptive management provisions, beyond what was agreed to in the HCP, permit, and IA, if used.

Issue 15: One commenter stated that adaptive management should not replace good, up-front conservation measures.

Response 15: The Services agree that adaptive management should not be used in place of developing good up-front conservation measures or to postpone addressing difficult issues. However, adaptive management may be necessary to craft a framework for addressing uncertainty in the operating conservation program to ensure that the measures fulfill the biological goals and objectives of an HCP.

Monitoring Issues

Issue 16: Several commenters stated that the Services should establish minimum standards or require scientific standards for the monitoring program within an HCP.

Response 16: The implementing regulations for an HCP (50 CFR 17.22, 17.32, and 222.307) require a monitoring component. The HCP Handbook includes guidance on what the monitoring component of an HCP should look like. However, we have refined that guidance and have incorporated it into the addendum. The Services agree that any methodology and techniques involved in biological aspects of monitoring should be based on science. The addendum does state that "The monitoring program will be based on sound science. Standard survey or other previously-established monitoring protocols should be used. Although the specific methods used to gather necessary data may differ depending on the species and habitat types, monitoring programs should use a multispecies approach when appropriate." Monitoring approaches that are consistent with the Handbook and addendum should be adequate for assessing whether the HCP is achieving its biological goals and objectives.

Issue 17: Some commenters stated that it was difficult to distinguish between compliance monitoring and effects and effectiveness monitoring.

Response 17: The Services recognize that it may be difficult to distinguish between the two types of monitoring

particularly when the actual monitoring actions may overlap. One way to distinguish between the two types is that compliance monitoring verifies that the permittee is carrying out the terms of the HCP, permit, and IA (if one is used) while effects and effectiveness monitoring evaluates the biological effects of the permitted action and determines whether the effectiveness of the operating conservation program of the HCP is consistent with the assumptions and predictions made when the HCP was developed and approved. The permittee is primarily responsible for ensuring that their HCP is working as planned and the Services are primarily responsible for monitoring whether the permittee is complying with permit requirements.

Issue 18: A few commenters suggested that the Services identify, in the addendum, minimum qualifications for personnel conducting monitoring.

Response 18: The addendum does state that the personnel conducting the monitoring should be qualified. However, the necessary qualifications depend upon what is being monitored. Since HCPs are highly variable, the addendum is flexible about the minimum qualifications of personnel conducting the monitoring, and the Services' staff will determine whether the person or company conducting the monitoring is qualified.

Issue 19: One commenter suggested the Services require all monitoring programs to include population counts.

Response 19: Population monitoring may not be appropriate for all HCPs. The scope of any HCP monitoring program should be in proportion to the scope of that HCP. If an HCP affects only a portion of a population, the permittee should not be responsible for monitoring the entire population. In addition, it may or may not be appropriate for a particular HCP to include counting of populations or individuals. The appropriate unit of measure in a monitoring program depends upon the specific impacts and operating conservation program within an HCP and the biological goals and objectives of the HCP. The unit of measure also depends on how the species uses the habitat to be affected. However, the Services should coordinate monitoring programs to obtain a larger picture of the status of a population.

Issue 20: Some commenters suggested that self-reporting should not be used as a means to demonstrate that the permittee is in compliance with the terms of an HCP.

Response 20: We are not limited to self-reporting for compliance

monitoring. However, the limited resources available to the Services to conduct monitoring necessitates our reliance on the working relationships between us and the permittees to verify compliance. As discussed in the addendum, where appropriate, we may conduct our own evaluation, including site visits. The Services should be able to use the periodic reports made by permittees as one method in determining whether the permittee is in compliance. Periodic reports may be our first source of information about the implementation of an HCP. From these reports, we may catch discrepancies that alert us to possible implementation problems. Also, the information obtained to determine effects and effectiveness may be the same information needed to determine compliance. We do not want to use limited resources on duplicative monitoring efforts.

Permit Duration Issues

Issue 21: One commenter suggested that the Services link the duration of the permit to recovery of the species covered by an HCP.

Response 21: We assume that this comment refers to linking duration of the permit to completion of recovery goals where HCPs have a "recovery standard." We discuss the relationship of the HCP program and recovery in the above responses.

Issue 22: Some commenters stated that we should not place time limits on mitigation measures.

Response 22: This comment seems to reflect a misunderstanding regarding the duration of an incidental take permit. Permit duration is the length of time during which the permittee has incidental take authorization. HCPs may be designed such that mitigation measures are in effect for longer periods of time, including in perpetuity, than the time the incidental take permit is in effect.

Public Participation Issues

Issue 23: Many comments pertained to whether the Services or the applicant decides who participates in the development of HCPs. Most commenters stated that the applicant should not decide who participates, and offered alternatives including mandatory stakeholder or interested party participation, and leaving the decision up to the Services.

Response 23: The experience of the Services shows that the more public participation in the development phase of an HCP, the more likely it will be accepted by the public. However, we maintain that the inclusion of other

interested parties in the development of an HCP is ultimately the decision of the applicant. The ESA and its implementing regulations do not mandate public participation before an applicant submits a permit application; only a public comment period after it is submitted and published in the **Federal Register**. We strongly encourage applicants to include more public participation at all stages of development.

Issue 24: Some commenters suggested that scientists should be involved in the development of HCPs. Another commenter stated that all HCPs should be subject to peer review.

Response 24: During consideration of whether to issue an incidental take permit, the Services are required to use the best available scientific and commercial information. Such data come from a variety of sources: scientific literature and peer-reviewed publications, in-house expertise, other State or Federal agencies, academia, and non-governmental organizations, to name a few. For listed species, the Services can draw upon a number of existing information sources, all of which have gone through peer and public review. ESA listing packages are used to gain further species-specific biological information, and where possible, the Services will draw upon recovery plans to identify conservation and monitoring measures and objectives for listed species. The addendum encourages applicants to use scientific advisory committees during the development and implementation of an HCP, especially large-scale ones.

The applicant's integration of a scientific advisory committee and perhaps other stakeholders improves the development and implementation of any adaptive management strategy. Advisory committees can assist the Services and applicants in identifying key components of uncertainty and determine alternative strategies for addressing that uncertainty. We also encourage the use of peer-review for an HCP. An applicant, with guidance from the Services, may seek independent scientific review of specific sections of an HCP and its operating conservation strategy to ensure the use of the best scientific information for HCP development.

Issue 25: One commenter requested that the public comment period under the National Environmental Policy Act (NEPA) for HCPs not be extended. Another comment suggested that the Services process incidental take permits with Environmental Impact Statements within nine months, and, if that deadline is not met, we would be

required to issue the permit within 30 days.

Response 25: The addendum contains changes to the existing HCP public comment period but does not change any public input required by the Council on Environmental Quality regulations for implementing the procedural provisions of NEPA (40 CFR 1500–1508).

The intent of the addendum is to ensure the public has sufficient opportunity to review and provide comment on all HCPs, regardless of the public review requirements of NEPA. To accomplish this, the addendum lays out the various public review requirements for HCPs with different levels of impact. For example, low-effect HCPs, which are categorically excluded from the NEPA process, will have a minimum 30-day public review and comment period. The public review period for large, complex HCPs is 90 days, unless there is significant public involvement during development. All other HCPs (including large complex HCPs with significant public involvement) will be made available for review and comment for a minimum of 60 days.

The addendum contains target time frames for us to process an incidental take permit application. The target processing time frame for an HCP that includes an Environmental Impact Statement (EIS) is up to one year, including the 90-day comment period (or 60-days if significant public participation has occurred). However, we cannot issue a permit until we have determined that it meets the issuance criteria under section 10(a)(2)(B) of the ESA. Because of the complexity associated with an HCP that has an EIS, we need the target processing time frame of one year to determine whether to issue the permit. One method to reduce the amount of time needed to process a permit application is for an applicant to include up-front public participation during HCP development.

Required Determinations

Regulatory Planning and Review, Regulatory Flexibility Act, and Small Business Regulatory Enforcement Fairness Act

This final policy was subject to Office of Management and Budget (OMB) review under Executive Order 12866.

a. This policy will not have an annual economic effect of \$100 million or adversely affect an economic sector, productivity, jobs, the environment, or other units of government. A cost-benefit and economic analysis is not required. The primary purpose of the addendum is to incorporate the 5-point

policy, which was published in draft form on March 9, 1999, into the final Handbook for Habitat Conservation Planning and Incidental Take Permitting Process. This HCP Handbook addendum provides additional guidance on five concepts that, although treated only briefly in the handbook, are in widespread use in existing and developing HCPs. The main purpose of this addendum is to provide a consistent approach to these concepts for future HCPs. The five concepts addressed in this addendum include biological goals and objectives, adaptive management, monitoring, permit duration, and public participation.

The HCP program and the associated section 10 permits have been in place for approximately 17 years. The 1982 amendments to the ESA created a statutory framework for the HCP program that was built primarily around four permit application criteria and four permit issuance criteria. We promulgated regulations in 1985 in order to implement the Congressionally created HCP program. The statutory and regulatory framework for HCPs has remained unchanged since it was first put into place. The five concepts addressed in this addendum are an outgrowth of the statute and regulations. This addendum does not create these concepts, nor does it change the current regulations or general application of the concepts in practice.

In order to analyze the economic effect of this addendum, we reviewed the potential of this policy to have an effect on HCPs in three different areas: the cost of HCP development, the cost of HCP minimization and mitigation, and The cost of HCP implementation. Past and current experience with the HCP program leads us to predict that we will complete and approve approximately 35 new HCPs each year into the foreseeable future. We expect that the size and complexity of the expected 35 HCPs per year will continue to vary from the extremely small, single-species HCP to multi-species HCPs covering more than a million-acre planning area (see Table 1). Based on past and current experience, we predict that 20 of the expected 35 HCPs per year will be relatively small and simple HCPs covering one or a few listed species (of which 8 may be deemed "low effect"). The HCPs of medium size and complexity are expected to account for another 12 of the 35 HCPs, and the remaining three HCPs are expected to be large, complex HCPs.

TABLE 1.—SIZE DISTRIBUTION OF HCPS ACCORDING TO PLANNING AREA, AS OF DECEMBER 31, 1999

[Some plans have both short-term and long-term HCPS, where the total amount of area addressed in the short-term HCP is included within the total area of the subsequent long-term HCP. Therefore, the numbers of HCPS accounted for above will not total the number of HCPS that have been issued. A few HCPS were not included in this tally because they addressed the planning areas in linear miles instead of acres.]

Size of HCPS	Number of HCPS
Less than 1 acre	44
Between 1–10 acres	64
Between 10–100 acres	56
Between 100–500 acres	37
Between 500–1,000 acres	11
Between 1,000–10,000 acres	17
Between 10,000–100,000 acres ...	14
Between 100,000–500,000 acres	10
Between 500,000–1,000,000 acres	4
Greater than 1,000,000 acres	2

The Effect of Additional Policy Guidance on Biological Goals and Objectives

This addendum emphasizes the benefit of explicitly articulating why the minimization and mitigation efforts in an HCP are being provided and what they are expected to accomplish. The thrust of this concept is aimed at the HCP preparation phase. We have no reason to believe it will have any effect on an HCP's minimization and mitigation or on HCP implementation. From the very beginning of the HCP program, biological goals and objectives have been incorporated into HCPS, sometimes in an explicit manner and in other cases in an implicit manner. For example, in the first HCP, which was used by Congress as a model for the 1982 amendments to the ESA, the HCP states that the "purpose of the [HCP] is to provide for the indefinite perpetuation of the Mission Blue and Callippe Silverspot butterflies on San Bruno Mountain, as well as to conserve * * * the value * * * as a remnant ecosystem. * * * The more pervasive goal is to simultaneously provide for the perpetuation and enhancement of the grassland habitat which supports the butterflies. * * * The focus of preservation is on the grassland because this is thought * * * to be the ancestral native habitat. * * *"[*San Bruno Mountain Area Habitat Conservation Plan*, Final 1991]. A more recent example from an HCP developed in Texas states "the main goal of the HCP is to * * * minimize and mitigate the impacts. * * * This main goal is achieved by onsite conservation

measures * * * and the acquisition and dedication of preserve lands for the warbler adjacent to an existing habitat preserve and within the same warbler recovery unit as the proposed development." [*Environmental Assessment and Habitat Conservation Plan, Issuance of an Endangered Species Section 10(a) Permit for the Incidental Take of the Golden-cheeked Warbler (Dendroica chrysoparia) during construction and Operation of the Approximate 24-acre Single Family Residential Development, Canyon Ridge, Phase A, Section 3, Austin, Travis County, Texas, December, 1994*].

The second issuance criterion in section 10 of the ESA requires a finding that the applicant "will, to the maximum extent practicable, minimize and mitigate the impacts. * * *" This criterion inherently requires a discussion of the minimization and mitigation efforts and their relationship to the project impact and the desired outcome of the HCP. We believe that the decision documents examining this criterion are of higher quality when biological goals and objectives are made explicit. This addendum is directed towards agency personnel and does not seek to alter the permit application criteria or otherwise require anything new of permit applicants. We already encourage HCP applicants to provide an explicit discussion of biological goals and objectives, but this addendum will not mandate such a discussion in the HCP. Instead, this addendum will ensure that the agency decision documents that analyze the HCP contain an explicit discussion of biological goals and objectives.

We do not expect that policy guidance requiring an explicit articulation of biological goals and objectives that already exist in some form in the HCP will require any significant additional time or effort. The incorporation of this addendum into the handbook reflects support for existing practice more than it does a new policy development. As such, and given the relative ease of explaining the goals of conservation measures, we believe that this policy will have little to no economic effect on small entities or any other entity. In addition, we have determined that providing a numerical or quantitative description of this deminimus effect is not practical and we have, therefore, provided a narrative analysis instead.

The Effect of Additional Policy Guidance on Adaptive Management

The HCP Handbook already provides policy guidance on adaptive management, and thus this addendum merely provides additional refinement.

The concept of adaptive management has been both broadly and narrowly defined by the disciplines that use the concept. We are embracing a somewhat broad definition of the term as supported by the scientific literature, and one of the reasons for additional policy guidance on this concept is to explain our application of the concept of adaptive management compared to the narrower definition favored in some academic circles.

Adaptive management has been widely used in the HCP program from the very beginning. The first HCP, San Bruno Mountain, utilized the concept, stating: "notwithstanding the considerable knowledge gained through the biological study, the Habitat Conservation Plan, in concept and in implementation, is novel and in many ways, experimental. There are many biological uncertainties which inescapably remain at the outset of such an ambitious undertaking which can only be resolved through an ongoing program of applied research designed specifically to direct Plan implementation." [*San Bruno Mountain Area Habitat Conservation Plan*, Final 1991, emphasis in original]. Since the San Bruno plan, many HCPS, especially the larger and more complex HCPS, have utilized adaptive management concepts in one form or another. Examples include the Washington County HCP in Utah and the Plum Creek Timber Company I-90 Corridor HCP in Washington. Arguably some of the measures in these HCPS that can be categorized as adaptive management were included in an attempt to meet regulatory requirements concerning unforeseen and changed circumstances. The section 10 regulations require that permit applicants develop procedures to address unforeseen circumstances (50 CFR 17.22(b)(1)(iii)(B), 17.32(b)(1)(iii)(B) for FWS and 50 CFR 222.307(g) for NMFS) and make the existence of these procedures a precondition to permit issuance. See 50 CFR 17.22(b)(2)(iii) and 17.32(b)(2)(iii) for FWS and 50 CFR 222.307(g) for NMFS. The No Surprises rulemaking expanded on the contingency planning aspects of the HCP program by requiring contingency planning for changed circumstances that are foreseeable [See 63 FR 8859 (February 23, 1998)]. This addendum on adaptive management does not mandate the contingency planning identified above, even if some of the procedures adopted fall under the heading of adaptive management.

The addendum states that adaptive management will be used for HCPS that are faced with significant data gaps. We believe that an HCP that fails to address

significant data gaps will not meet the issuance criteria of the ESA. It is, therefore, not the addendum itself that mandates the use of adaptive management in cases of significant data gaps, but is instead the applicant's need to overcome data gaps and still meet the permit issuance criteria established in the ESA. Current practice on the ground is to rely on adaptive management to overcome data gaps. This addendum provides policy support for this existing practice, but does not change the status quo. We, therefore, determine that the addendum's coverage of adaptive management will not effect small entities to any measurable degree.

The Effect of Additional Policy Guidance on HCP Monitoring

This addendum does not impose any new monitoring requirements. Monitoring is already required by the section 10 regulations. In the preamble to the final rule promulgating the section 10 regulations, we agreed with a commenter that the Service should monitor the implementation of a conservation plan and accordingly finalized revisions to sections 17.22(b)(1)(iii)(B), 17.22(b)(3), 17.32(b)(1)(iii)(B) and 17.32(b)(3) to require that conservation plans specify the monitoring measures to be used and to authorize imposition of necessary monitoring as a condition of each permit." 50 FR 39681, 39684 (September 30, 1985). NMFS also included a monitoring requirement in their section 10 regulations (50 CFR 307 (d)).

This addendum seeks to refine existing monitoring policy by organizing the types of monitoring being conducted into categories, including compliance monitoring, effect monitoring, and effectiveness monitoring. The addendum also seeks greater compatibility of monitoring data across HCPs. Neither of these policy additions is expected to have any economic impact. Current practice entails the HCP applicant and the Services working together to arrive at a monitoring program that, based on the specifics of the HCP and the species involved, is robust enough to provide the information the parties feel will be needed. This addendum does not alter current practice and instead reiterates the regulatory requirement and provides policy recognition and support for the current practice.

The Effect of Policy Guidance on Permit Duration

The section 10 regulations provide factors that the Director should consider in determining permit duration. The

Handbook did not provide any treatment of the issue of permit duration. This addendum would add a short provision to the Handbook that essentially repeats verbatim the regulatory language on permit duration. Even though the addendum does not expand on the regulations' treatment of permit duration, we believe that the Handbook should provide coverage of all aspects of the program and it will thus be beneficial to include this provision in the Handbook. The policy guidance on permit duration will not affect the current approach to determining permit duration and will, therefore, not have any effect.

The Effect of Additional Policy Guidance on Public Participation

In the area of public participation, this addendum signals a departure from the current practice in the Handbook by increasing the length of the public comment period for many HCPs by thirty days. The ESA requires a minimum of a thirty day public comment period, but does not prohibit longer public comment periods. This addendum provides that "low effect" HCPs will, as a general matter, continue to be provided to the public for a thirty day comment period. The addendum thus does not change the current approach for low effect HCPs, which we expect will comprise eight of the predicted thirty-five new HCPs per year. The addendum indicates most other HCPs will be provided to the public for a sixty day comment period. Finally the addendum states that large, complex HCPs will need to have a ninety day public comment period unless the applicant has taken steps to involve the public earlier in the HCP process, in which case the HCP will qualify for the sixty day comment period.

This policy guidance on public participation has the potential to affect twenty-seven HCPs per year. The large, complex HCPs, predicted to account for three of the new HCPs per year, have historically been associated with extensive public notice and involvement, often through the EIS process under NEPA. This type of public involvement would qualify these HCPs for the sixty day comment period. The parallel NEPA process will typically require significant comment time periods, often matching or exceeding the time periods established by this addendum. We have also observed that the large HCPs of the past were noticed for more than the minimum thirty days required by section 10 simply because of their size and complexity and in response to requests for extensions from the public.

We have, therefore, determined that this addendum will not alter the current practice with regard to the length of public comment periods and large HCPs. Based on this determination, we conclude that this policy guidance on public participation will not have an economic effect.

Of the remaining twenty-four expected HCPs per year, we expect at least four of those HCPs would have longer than the minimum public comment period because of reasonable public requests for extensions. There are, therefore, twenty HCPs per year that could potentially be effected by the policy guidance on public participation. Of these twenty HCPs, only a small number are expected to actually have all local approvals in hand and be ready to proceed before the conclusion of HCP processing, including the public comment period. Unless an HCP applicant is otherwise ready to begin project implementation, we do not believe an additional thirty days of public comment will have any economic effect. For the small number of HCPs that may be waiting for the HCP process to be completed, the economic effect of a thirty day extension to the process will depend tremendously on the scale and type of project. In addition, many projects will be able to proceed in part prior to permit issuance, providing there is no incidental take of species or a preclusion of the development of reasonable and prudent alternatives. See 16 U.S.C. 1536(d). HCP applicants will be fully aware of the addendum's public participation time lines and will, therefore, be able to factor the additional public comment period into their HCP planning early. This early recognition of the time lines may prove beneficial compared to planning on a thirty day comment period only to find near the end of that period that the Services has decided sound grounds exist for an extension. Based on this narrative analysis, we conclude that an increase in public comment periods will have a negligible economic effect.

In summary, the 5 Point HCP addendum provides recognition and policy support for existing practices in each of the five concept areas discussed above. The addendum does not change the current statutory or regulatory framework and merely provides refinements to existing policy. As a result, the addendum will not have a significant economic effect.

b. This addendum will not create inconsistencies with other agencies' actions. The addendum to the HCP Handbook does change the existing requirements for a HCP. The addendum

is intended to assist Government employees and as such may also assist the public. The only change to the HCP Handbook included in the addendum is to provide adequate time for public comment when developing HCPs.

c. This policy will not materially affect entitlements, grants, user fees, loan programs, or the rights and obligations of their recipients. The addendum to the HCP Handbook was developed solely to provide consistency to the HCP program and is intended as guidance for the Government.

d. This policy will not raise novel legal or policy issues. The addendum to the HCP Handbook was developed to provide clarification for the HCP process and does not change regulations or significantly change existing policy.

The Departments of Interior and Commerce certify that this policy will not have a significant economic effect on a substantial number of small entities as defined under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*). There are more than 248 existing HCPs of which 106 are for small entities and 142 are for corporations or other large entities. The addendum does not change the ability of small entities to develop HCPs in the future. The Services expect small entities will have the same proportion of future HCPs.

This policy is not a major rule under 5 U.S.C. 804(2), the Small Business Regulatory Enforcement Fairness Act. This policy:

1. Does not have an annual effect on the economy of \$100 million or more.

2. Will not cause a major increase in costs or prices for consumers, individual industries, Federal, State, or local government agencies, or geographic regions.

3. Does not have significant adverse effects on competition, employment, investment, productivity, innovation, or the ability of U.S.-based enterprises to compete with foreign-based enterprises. The purpose of the addendum is to provide Federal employees the guidance required for the consistent application of the Handbook for developing HCPs. The addendum will provide some simplification to the HCP Program due to clarification of processes.

Unfunded Mandates Reform Act

In accordance with the Unfunded Mandates Reform Act (2 U.S.C. 1501 *et seq.*):

a. This addendum will not “significantly or uniquely” affect small governments. A Small Government Agency Plan is not required. The HCP Handbook provides guidance to Federal employees involved in reviewing and approving incidental take permits that

include habitat conservation plans. The HCPs and permits generally are coordinated with appropriate State and local governments to include their views on the activities covered by the permit (in many cases, the activities also require State or local government authorization). In some instances, the applicant is the local government seeking incidental take permits for activities planned and conducted within its area of jurisdiction. The addendum does not change this process by encouraging applicants to coordinate with State agencies. As with all other applications, this addendum will not have an effect on small governments.

b. This policy will not produce a Federal mandate of \$100 million or greater in any year, *i.e.*, it is not a “significant regulatory action” under the Unfunded Mandates Reform Act. See discussion in the section titled “Regulatory Planning and Review, Regulatory Flexibility Act, and Small Business Regulatory Enforcement Fairness Act.”

Takings Implication Assessment

In accordance with Executive Order 12630, the policy does not have significant takings implications. A takings implication assessment is not required. The addendum guides employees in the evaluation and approval of applications for incidental take permits under existing law.

Federalism Assessment

In accordance with Executive Order 13132, the policy does not have sufficient Federalism implications to warrant preparation of a Federalism assessment. This addendum does not change the relationship between the Services and applicants, nor does it alter the Services’ relationship with State and local governments within the HCP Program.

Civil Justice Reform

In accordance with Executive Order 12988, the Office of the Solicitor has determined that the policy does not unduly burden the judicial system and meets the requirements of sections 3(a) and 3(b)(2) of the Order.

Paperwork Reduction Act.

This addendum does not require an information collection under the Paperwork Reduction Act. A related information collection associated with incidental take permits is covered by existing OMB approvals (#1018–0094 for FWS #0648–0230 for NMFS).

National Environmental Policy Act

The Department of the Interior has determined that the issuance of the policy is categorically excluded under the Department’s National Environmental Policy Act procedures in 516 DM 2, Appendix 1.10. The National Oceanic and Atmospheric Administration (NOAA) has determined that the issuance of this guidance qualifies for a categorical exclusion as defined by the NOAA 216–6 Administrative Order, Environmental Review Procedure.

Section 7 Consultation

The Services do not need to complete a section 7 consultation on this final policy. An intra-Service consultation is completed prior to issuing incidental take permits under 10(a)(1)(B) of the Endangered Species Act associated with individual HCPs.

Authority

The authority for this action is the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*).

Addendum to The HCP Handbook

The five sections (or five-points) of the final addendum are contained entirely within this notice. The Services will adhere to the guidance provided in the addendum. Nothing in this guidance is intended to supersede or alter any aspect of Federal law or regulation pertaining to the conservation of threatened or endangered species.

Biological Goals And Objectives

What Are an HCP’s Biological Goals and Objectives?

HCPs have always been designed to achieve a biological purpose, yet they may not have specifically stated those biological goals. In the future, the Services and HCP applicants will clearly and consistently define the expected outcome, *i.e.*, biological goal(s). This rather simple concept will facilitate communication among the scientific community, the agencies, and the applicants by providing direction for the development of HCPs.

The HCP Handbook discusses identifying biological goals and objectives (Chapter 3). Since biological goals and objectives are inherent to the HCP process, HCPs have had implied biological goals and objectives, and many recent HCPs include explicit biological goals or objectives. Explicit biological goals and objectives clarify the purpose and direction of an HCP’s operating conservation program. They create parameters and benchmarks for developing conservation measures,

provide the rationale behind the HCP's terms and conditions, promote an effective monitoring program, and, where appropriate, help determine the focus of an adaptive management strategy.

What Are Biological Goals and Objectives in HCPs?

In the context of HCPs, biological goals are the broad, guiding principles for the operating conservation program of the HCP. They are the rationale behind the minimization and mitigation strategies. For more complex HCPs, biological objectives can be used to step down the biological goals into manageable, and, therefore, more understandable units. Multiple species HCPs may categorize goals by species or by habitat, depending on the structure of the operating conservation program. HCPs that are smaller in scope would have simpler biological goals that may not need to be stepped down into objectives. It should be noted that the biological goals of an individual HCP are not necessarily equivalent to the range-wide recovery goals and conservation of the species. However, if viewed collectively, the biological goals and objectives of HCPs covering the same species should support the recovery goals and conservation.

The biological goals and objectives of an HCP are commensurate with the specific impacts and duration of the applicant's proposed action. For example, low-effect HCPs generally have simple measurable biological goals, such as contributing to a regional preserve design through a mitigation bank or avoiding breeding habitat of a particular species.

How Do I Incorporate Biological Goals and Objectives Into an HCP?

Determination of the biological goals and objectives is integral to the development of the operating conservation program. Conservation measures identified in an HCP, its accompanying incidental take permit, and/or IA, if used, provide the means for achieving the biological goals and objectives. We will work with the applicant to develop the biological goals and objectives by examining the applicant's proposed action and the overall conservation needs of the covered species and/or its habitat.

The biological goals and objectives are refined as the operating conservation program takes shape. Initial biological goals and objectives of an HCP begin by articulating the rationale behind the operating conservation program. The Services and applicant improve the initial biological goals by compiling the

known information of the species, estimating the anticipated effects to the species, and stating any assumptions made. If the operating conservation program is relatively complex, the biological goal is divided into manageable and measurable objectives. Biological objectives are the different components needed to achieve the biological goal such as preserving sufficient habitat, managing the habitat to meet certain criteria, or ensuring the persistence of a specific minimum number of individuals. The specifics of the operating conservation program are the actions anticipated to obtain the biological objectives; therefore, we can use these objectives to strengthen the initial operating conservation program.

Elzinga *et al.* (1998) provide guidance for developing measurable objectives for rare plant monitoring that can be used for other species. Biological objectives should include the following: species or habitat indicator, location, action, quantity/state, and timeframe needed to meet the objective. They can be described as a condition to be met or as a change to be achieved relative to the existing condition. Biological objectives may be addressed in parallel.

Conversely, achieving the biological objectives may need to occur in sequence. For instance, parallel objectives may be (1) maintaining the preserve site free of nonnative weeds and (2) enhancing the population from 4 individuals to 7 individuals. Sequential objectives may be (1) restoring of an area of habitat and then (2) reintroducing the species.

The Services and applicants have many resources to draw upon when determining the biological goals and objectives of an HCP. Both can use the available literature, State conservation strategies, candidate conservation plans, draft or final recovery plans or outlines, and other sources of relevant scientific and commercial information as guides in setting biological goals and objectives. Both can consult with species experts, State wildlife agencies, recovery teams, and/or scientific advisory committees.

What Is the Difference Between a Habitat-Based Goal and a Species-Based Goal?

The biological goals and objectives may be either habitat or species based. Habitat-based goals are expressed in terms of amount and/or quality of habitat. Species-based goals are expressed in terms specific to individuals or populations of that species. Complex multispecies or regional HCPs may use a combination of habitat- and species-specific goals and

objectives. However, according to 50 CFR 17.22, 17.32, 222.102, and 222.307, each covered species must be addressed as if it were listed and named on the permit. Although the goals and objectives may be stated in habitat terms, each covered species that falls under that goal or objective must be accounted for individually as it relates to that habitat.

Are Permittees Required To Achieve the Biological Goals and Objectives of the HCP?

How the biological goals fit with the implementation of an HCP may be framed as a series of prescriptive measures to be carried out (a prescription-based HCP) or the ability to use any number of measures that achieve certain results (a results-based HCP). A prescription-based HCP outlines a series of tasks that are designed to meet the biological goals and objectives. This type of HCP may be most appropriate for smaller permits where the permittee would not have an ongoing management responsibility. A results-based HCP has flexibility in its management so that the permittee may institute the actions that are necessary as long as they achieve the intended result (*i.e.*, the biological goals and objectives), especially if they have a long-term commitment to the conservation program of the HCP. HCPs can also be a mix of the two strategies.

The Services and the applicant should determine the range of acceptable and anticipated management adjustments necessary to respond to new information. This process will enable the applicant to assess the potential economic impacts of adjustments before agreeing to the HCP while allowing for flexibility in the implementation of the HCP in order to meet the biological goals.

Regardless of the type of goals and objectives used and how they fit within implementation of the HCP, the Services will ensure that the biological goals are consistent with conservation actions needed to adequately minimize and mitigate impacts to the covered species to the maximum extent practicable. Whether the HCP is based on prescriptions, results, or both, the permittee's obligation for meeting the biological goals and objectives is proper implementation of the operating conservation program of the HCP. In other words, under the No Surprises assurances, a permittee is required only to implement the HCP, IA, if used, and terms and conditions of the permit. Implementation may include provisions for ongoing changes in actions in order

to achieve results or due to results from an adaptive management strategy.

Adaptive Management

What Is Adaptive Management?

Adaptive management is an integrated method for addressing uncertainty in natural resource management (Holling 1978, Walters 1986, Gundersen 1999). It also refers to a structured process for learning by doing. The concept is used in a number of different contexts, including the social science aspects of learning and change in natural resource management. The term adaptive management was adopted by Holling (1978) for natural resource management, who described adaptive management as an interactive process that not only reduces, but benefits from, uncertainty. Additionally, Walters (1986) breaks down categories of learning through implementation as "active" and "passive" adaptive management. Passive adaptation is where information obtained is used to determine a single best course of action. Active adaptation is developing and testing a range of alternative strategies (Walters and Holling 1990). The Services believe that both of these types of adaptive management are appropriate to consider when developing a strategy to address uncertainty. Therefore, we are defining adaptive management broadly as a method for examining alternative strategies for meeting measurable biological goals and objectives, and then, if necessary, adjusting future conservation management actions according to what is learned.

Implementation of adaptive strategies has been criticized for failing to resolve uncertainty or effectively implementing good experimental design (Walters 1997; Lee 1999). These failures are typically attributed to agency or stakeholder unwillingness to accept the risk involved in experimentation. The Services do have certain constraints in the HCP Program that may inhibit experimental design. For instance, stakeholder involvement in the development of many HCPs, including the adaptive management design, is largely at the discretion of the applicant.

Another restriction we face collectively (Services, applicants, other stakeholders) is the possible risks to species that may arise with using an experimental design. Many adaptive management processes with public/stakeholder involvement address large-scale management issues (e.g., Florida Everglades, Grand Canyon). This type of process is complicated and involved, but appropriate for the scale of the issue. Similarly, more active and

involved approaches to adaptive management are appropriate for large-scale HCPs. However, an active approach may pose too much of a risk to the species; therefore, a more passive approach may be the best course of action. An active approach may also be too cumbersome for the scope of the HCP and, therefore, a passive approach may be more appropriate.

Despite the potential obstacles to incorporating a comprehensive adaptive management strategy in an HCP, the Services incorporate adaptive management strategies when appropriate. We believe it is important that small- to medium-sized HCPs incorporate the flexibility to change implementation strategies after permit issuance. The HCP Program is flexible enough to develop adaptive management strategies that will facilitate and improve the decision-making process for the operating conservation program of a given HCP as well as provide for informative decision-making.

When Should Adaptive Management Be Incorporated Into an HCP?

The Services will consider adaptive management as a tool to address uncertainty in the conservation of a species covered by an HCP. Whenever an adaptive management strategy is used, the approved HCP must outline the agreed-upon future changes to the operating conservation program. Not all HCPs or all species covered in an incidental take permit need an adaptive management strategy. However, an adaptive management strategy is essential for HCPs that would otherwise pose a significant risk to the species at the time the permit is issued due to significant data or information gaps. Possible significant data gaps that may require an adaptive management strategy include, but are not limited to, a significant lack of specific information about the ecology of the species or its habitat (e.g., food preferences, relative importance of predators, territory size), uncertainty in the effectiveness of habitat or species management techniques, or lack of knowledge on the degree of potential effects of the activity on the species covered in the incidental take permit.

Often, a direct relationship exists between the level of biological uncertainty for a covered species and the degree of risk that an incidental take permit could pose for that species. Therefore, the operating conservation program may need to be relatively cautious initially and adjusted later based on new information, even though a cautious approach may limit the

number of alternative strategies that may be tested. A practical adaptive management strategy within the operating conservation program of a long-term incidental take permit will include milestones that are reviewed at scheduled intervals during the lifetime of the incidental take permit and permitted action. If a relatively high degree of risk exists, milestones and adjustments may need to occur early and often.

Adaptive management should not be a catchall for every uncertainty or a means to address issues that could not be resolved during negotiations of the HCP. There may be some circumstances with such a high degree of uncertainty and potential significant effects that a species should not receive coverage in an incidental take permit at all until additional research is conducted.

What Are the Elements of an Adaptive Management Strategy in HCPs?

In an HCP, adaptive management strategies can assist the Services and the applicant in developing an adequate operating conservation program and improving its effectiveness. An adaptive management strategy should (1) identify the uncertainty and the questions that need to be addressed to resolve the uncertainty; (2) develop alternative strategies and determine which experimental strategies to implement; (3) integrate a monitoring program that is able to detect the necessary information for strategy evaluation; and (4) incorporate feedback loops that link implementation and monitoring to a decision-making process (which may be similar to a dispute-resolution process) that result in appropriate changes in management. If you are developing adaptive management strategies, we encourage you to review the scientific literature that discusses adaptive management (for a starting point see literature cited at the end of the addendum).

Identifying the uncertainty to be addressed is the foundation of the adaptive management strategy. Other components include a description of the goal of the operating conservation program (i.e., the biological goals and objectives of the HCP) and the identification of the parameters that potentially affect that goal. This requires communication between the applicant and the Services to identify expectations for the adaptive management strategy and may also involve assistance from scientists. After this step, we (the Services, applicants, and any other participants) will develop the range of possible "experimental" strategies which may involve some type of

modeling (which can be as simple as a written description of the expected outcomes or as complex as a mathematical model demonstrating expected outcomes) of the resource in question. If modeling is involved, we must clearly articulate the assumptions and limitations of the model used. Many factors may influence the type of alternatives to explore, including, but not limited to, economics, policies and regulations, and amount of risk to the species. This stage may be an appropriate time to involve other stakeholders to help identify the alternative strategies.

Next, a monitoring program needs to be designed that will adequately detect the results of the adaptive management strategy. Integration of the HCP's monitoring program into the adaptive management strategy is essential. The monitoring program plays an essential role of determining whether the chosen strategy(ies) is providing the desired outcome (*i.e.*, achieving the biological goals of the HCP). If a scientific advisory committee is being used, this may be an appropriate item for their review. An applicant may also submit a monitoring program for independent peer review.

Finally, an adaptive management strategy must define the feedback process that will be used to ensure that the new information gained from the monitoring program results in effective change in management of the resource.

How Does Adaptive Management Affect No Surprises Assurances?

HCP assurances (No Surprises) and the use of adaptive management strategies are compatible. The assurances apply once all appropriate HCP provisions have been mutually crafted and agreed upon and approved by the Services and the applicant. Adaptive management strategies, if used, are part of those provisions, and their implementation becomes part of a properly implemented conservation plan. When an HCP, permit, and IA, if used, incorporate an adaptive management strategy, it should clearly state the range of possible operating conservation program adjustments due to significant new information, risk, or uncertainty. This range defines the limits of what resource commitments may be required of the permittee. This process will enable the applicant to assess the potential economic impacts of adjustments before agreeing to the HCP.

Is Adaptive Management the Only Method for Changing the Operating Conservation Program of an HCP?

HCPs may be designed to provide flexibility other than through the use of

adaptive management. The No Surprises final rule lays a foundation for contingency planning in HCPs that may or may not include adaptive management. This contingency planning is addressed largely under the topic of "changed circumstances." Changed circumstances are circumstances that can be reasonably anticipated, and the HCP can incorporate measures to be implemented if the circumstances occur. The permittee or another responsible party may need the flexibility provided by the "changed circumstances" regulation to employ alternative methods or strategies within the operating conservation program to achieve the biological goals and objectives. This flexibility also allows previously agreed upon management and/or mitigation actions to be implemented or discontinued, as needed, in response to changed circumstances. These actions are not necessarily adaptive management and may be a process for implementing change to the operating program or simply a different conservation measure. The HCP, incidental take permit, and IA, if any, must describe the agreed upon range of management and/or mitigation actions and the process by which the management and funding decisions are made and implemented.

How Can an HCP Use Adaptive Management Without a Large and Expensive Experimental Design?

Adaptive management has traditionally been viewed and designed for large-scale systems. However, in some situations we may want to retain the flexibility of addressing uncertainty through an adaptive management strategy at a smaller scale. In such situations, an adaptive management strategy could take many forms including creating a simple feedback loop so that management changes could be implemented based on results of the HCP's monitoring program. Similarly, the agreed-upon strategy may be integration of an HCP with any ongoing research, recovery planning, and conservation planning by Federal, State, and local agencies. This integration is an efficient way to address uncertainty and provide the information needed to guide changes in small to medium sized HCPs. We can also view smaller, yet similar HCPs collectively across a landscape in order to adapt our approaches in future HCPs (Johnson 1999). This approach will require us to coordinate information among similar HCPs, including communication with the individual applicants regarding their role in such a landscape approach.

Monitoring

What Is Monitoring in the HCP Program?

Monitoring is a mandatory element of all HCPs (See 50 CFR 17.22, 17.32, and 222.307). When properly designed and implemented, monitoring programs for HCPs should provide the information necessary to assess compliance and project impacts, and verify progress toward the biological goals and objectives. Monitoring also provides the scientific data necessary to evaluate the success of the HCP's operating conservation programs with respect to the possible use of those strategies in future HCPs or other programs that contribute to the conservation of species and their habitat. The HCP Handbook already provides guidance for developing monitoring measures (Chapter 3, section B.4.) and discusses reporting requirements (Chapter 6, section E.4.). The following information further clarifies and provides additional guidance for the monitoring component of an HCP, permit, or IA.

What Are the Types of Monitoring That Can Be Incorporated Into HCPs?

The Services and the applicant must ensure that the monitoring program of an HCP provides information to: (1) Evaluate compliance; (2) determine if biological goals and objectives are being met; and (3) provide feedback information for an adaptive management strategy, if one is used. HCP monitoring is divided into two types. *Compliance Monitoring* is verifying that the permittee is carrying out the terms of the HCP, permit, and IA, if one is used. *Effects and Effectiveness Monitoring* evaluates the effects of the permitted action and determines whether the effectiveness of the operating conservation program of the HCP are consistent with the assumptions and predictions made when the HCP was developed and approved; in other words, is the HCP achieving the biological goals and objectives.

Scientific literature discussing monitoring uses similar terms as the addendum but the terms may have different meanings. For instance, the term "validation monitoring" is the same concept as the addendum's term "effectiveness monitoring." However, "effectiveness monitoring" in the scientific literature simply means measuring the status of species. "Implementation monitoring" is roughly equivalent to the addendum's term "compliance monitoring" with the added regulatory nature of the involvement of a permit.

What Determines the Extent of a Monitoring Program?

The scope of the monitoring program should be commensurate with the scope and duration of the operating conservation program and the project impacts. Biological goals and objectives provide a framework for developing a monitoring program that measures progress toward meeting those goals and objectives. If an HCP, permit, and/or IA has an adaptive management strategy, integrating the monitoring program into this strategy is crucial in order to guide any necessary changes in management.

Monitoring programs for large-scale or regional planning efforts may be elaborate and track more than one component of the HCP (e.g., habitat quality or collection of mitigation fees). Conversely, monitoring programs for HCPs with smaller impacts of short duration might only need to file simple reports that document whether the HCP has been implemented as described. For example, if an HCP affects only a portion of a population, the permittee should not generally be responsible for monitoring the entire population. In addition, it may not be appropriate for a monitoring program to involve counting of populations or individuals or making an assessment of habitat. The appropriate unit of measure in a monitoring program depends upon the specific impacts and operating conservation program within an HCP. The Services are responsible for ensuring that the appropriate units of measure and protocols are used and should coordinate monitoring programs to obtain a larger view of the status of a population. The applicant and the Services should also design the monitoring program to reflect the structure of the biological goals and objectives.

The monitoring program should reflect the measurable biological goals and objectives. The following components are essential for most monitoring protocols (the size and scope of the HCP will dictate the actual level of detail in each item): (1) Assess the implementation and effectiveness of the HCP terms and conditions (e.g., financial responsibilities and obligations, management responsibilities, and other aspects of the incidental take permit, HCP, and the IA, if applicable); (2) determine the level of incidental take of the covered species; (3) determine the biological conditions resulting from the operating conservation program (e.g., change in the species' status or a change in the habitat conditions); and (4) provide any information needed to implement an

adaptive management strategy, if utilized. An effective monitoring program is flexible enough to allow modifications, if necessary, to obtain the appropriate information.

Monitoring programs will vary based on whether they are for low-effect or for regional, multispecies HCPs; however, the general elements of each program are similar. Post-activity or post-construction monitoring, along with a single report at the end of the monitoring period, will often satisfy the monitoring requirements for low-effect HCPs. For other HCPs, monitoring programs will be more comprehensive and may include milestones, timelines, and/or trigger points for change.

Effects and effectiveness monitoring includes, but is not limited to, the following:

1. Periodic accounting of incidental take that occurred in conjunction with the permitted activity;
2. Surveys to determine species status, appropriately measured for the particular operating conservation program (e.g., presence, density, or reproductive rates);
3. Assessments of habitat condition;
4. Progress reports on fulfillment of the operating conservation program (e.g., habitat acres acquired and/or restored); and
5. Evaluations of the operating conservation program and its progress toward its intended biological goals.

What Units Should Be Monitored in an HCP?

Each HCP's monitoring program should be customized to reflect the biological goals, the scope, and the particular implementation tasks of the HCP. In order to obtain meaningful information, the applicant and the Services should structure the monitoring methods and standards so that we can compare the results from one reporting period to another period or compare different areas, and the monitoring protocol responds to the question(s) asked. Monitored units should reflect the biological objective's measurable units (e.g., if the biological objective is in terms of numbers of individuals, the monitoring program should measure the number of individuals). The monitoring program will be based on sound science. Standard survey or other previously-established monitoring protocols should be used. Although the specific methods used to gather necessary data may differ depending on the species and habitat types, monitoring programs should use a multispecies approach when appropriate.

What Role Do the Services Have in Monitoring?

Both the Services and the permittee are responsible for monitoring the implementation of the HCP. The Services' primary monitoring responsibilities (with the assistance of the permittee) are ensuring compliance with the permit's terms and conditions, including proper implementation of the HCP by the permittee. Permittee assistance with compliance monitoring includes monitoring the implementation and reporting their findings/results. The permittee, with the assistance of the Services, is responsible for verifying the effects and effectiveness of the HCP. To monitor all aspects of an HCP effectively, and to ensure its ultimate success, the entire monitoring program should incorporate both types of monitoring. The Services and the applicant should coordinate the two aspects of monitoring, and the monitoring program should also clearly designate who is responsible for the various aspects of monitoring.

The Services are responsible for ensuring that the permittee is meeting the terms and conditions of the HCP, its accompanying incidental take permit, and IA, if any (i.e., compliance monitoring). The Services should verify adherence to the terms and conditions of the incidental take permit, HCP, IA, and any other related agreements and should ensure that incidental take of the covered species does not exceed the level authorized under the incidental take permit. Regulations at 50 CFR §§ 13.45 and 222.301, provide the authority for the Services to require periodic reports unless otherwise specified by the incidental take permit. Also, the Services will ensure that the reporting requirements are tailored for documenting compliance with the incidental take permit (e.g., documentation of habitat acquisition, use of photographs). These reports help determine whether the permittee is properly implementing the terms and conditions of the HCP, its incidental take permit, and any IA, and will provide a long-term administrative record documenting progress made under the incidental take permit.

In addition to reviewing reports submitted by the permittee, it is important for the Services to make field visits to verify the accuracy of monitoring data submitted by the permittees. These visits allow the Services to check for information, identify unanticipated deficiencies or benefits, develop closer cooperative ties with the permittee, prevent accidental violations of the incidental take permit's

terms and conditions, and assist the permittee and Services in developing corrective actions when necessary.

For large-scale or regional HCPs, oversight committees, made up of representatives from significantly affected entities (e.g., State Fish and Wildlife agencies), are often used to ensure proper and periodic review of the monitoring program and to ensure that each program properly implements the terms and conditions of the incidental take permit. For example, the Wisconsin Statewide HCP for the Karner blue butterfly includes an auditing approach to ensure incidental take permit compliance. The lead permittee, Wisconsin Department of Natural Resources (Wisconsin DNR), will initially conduct annual on-site audits of each partner. FWS will audit the Wisconsin DNR in a similar fashion. In addition, FWS will accompany the Wisconsin DNR on the partner audits as appropriate to understand partner compliance levels. Over time, if performance levels are acceptable, Wisconsin DNR will conduct the audits less frequently. Each partner will provide an annual monitoring report and will submit these along with their audit report to FWS.

For large-scale or regional HCPs, oversight committees should periodically evaluate the permittee's implementation of the HCP, its incidental take permit, and IA and the success of the operating conservation program in reaching its identified biological goals and objectives. Such committees usually include species experts and representatives of the permittee, the Services, and other affected agencies and entities. Submitting the committee's findings to recognized experts in pertinent fields (e.g., conservation biologists or restoration specialists) for review or having technical experts conduct field investigations to assess implementation of the terms and conditions would also be beneficial. Because the formation of these committees may be subject to the Federal Advisory Committee Act, the role of the participants and the purpose of the meetings must be clearly identified. Oversight committees should meet at least annually and review implementation of the monitoring program and filing of reports as defined in the HCP, permit, and/or IA, if one is used.

What Role Does the Permittee Have in Monitoring?

Not only do permittees provide regular implementation reports, they are also involved in effects and effectiveness monitoring. Effects

monitoring determines the extent of impacts from the permitted activity. Effectiveness monitoring, in the HCP program, assesses progress toward the biological goals and objectives of the HCP (e.g., if the conservation strategies are producing the desired habitat conditions or population numbers). Effects and effectiveness monitoring may also involve assessing threats and population trends of the covered species related to the permitted activities, as well as monitoring the development of targeted habitat conditions. Permittees, with assistance from the Services, should ensure that the HCP includes provisions for monitoring the effects and effectiveness of the HCP. The Services and the HCP permittee will cooperatively develop the effects and effectiveness monitoring program and determine responsibility for its various components. In multi-party HCPs, different parties may monitor different aspects of the HCP. The Services must periodically review any monitoring program to confirm that it is conducted according to their standards.

What Should Be Included in Monitoring Reports?

The Services will streamline the reporting requirements for monitoring programs by requesting all reports in a single document. The HCP, permit, or IA should specifically state the level of detail and quantification needed in the monitoring report and tailor report due dates to the activities conducted under the incidental take permit (e.g., due at the end of a particular stage of the project or the anniversary date of incidental take permit issuance). Most monitoring programs require reports annually, usually due on the anniversary date of incidental take permit issuance. Wherever possible, the Services will coordinate the due dates with other reporting requirements (e.g., State reports), so the permittee can satisfy more than one reporting requirement with a single report. The following list represents the information generally needed in a monitoring report:

1. Biological goals and objectives of the HCP (which may need to be reported only once);
2. Objectives for the monitoring program (which may need to be reported only once);
3. Effects on the covered species or habitat;
4. Location of sampling sites;
5. Methods for data collection and variables measured;
6. Frequency, timing, and duration of sampling for the variables;
7. Description of the data analysis and who conducted the analyses; and

8. Evaluation of progress toward achieving measurable biological goals and objectives and other terms and conditions as required by the incidental take permit or IA.

These elements may be simplified for periods of no activity or low-effect HCPs. If a required report is not submitted by the date specified in the HCP or incidental take permit terms and conditions, or is inadequate, the Services will notify the permittee. The Services have discretion to offer the permittee an extension of time to demonstrate compliance. The Services have examined this reporting guidance under the Paperwork Reduction Act of 1995 and found that it does not contain requests for additional information or an increase in the collection requirements other than those already approved for incidental take permits (OMB approval for FWS, # 1018-0094; for NMFS, # 0648-0230).

How Are Monitoring Programs Funded?

The ESA and the implementing regulations (50 CFR 17 and 222) require that HCPs specify the measures the permittee will adopt to ensure adequate funding for the HCP. The Services should not approve an HCP that does not contain an adequate funding commitment from the applicant/permittee to support an acceptable monitoring program unless the HCP establishes alternative funding mechanisms. The Services and the applicant should work together to develop the monitoring program and determine who will be responsible for monitoring the various components of the HCP. Specific monitoring tasks may be assigned to entities other than the permittee (e.g., State or Tribal agencies) as long as the Services and parties responsible for implementing the HCP approve of the monitoring assignment. The terms of the HCP, incidental take permit, and IA may contain funding mechanisms that provide for a public (e.g., local, State, or Federal) or a private entity to conduct all or portions of the monitoring. This funding mechanism must be agreed upon by the Services and the parties responsible for implementing the HCP.

Permit Duration

How Do We Decide the Length of Time for Which the Permit Is in Place?

Both FWS and NMFS regulations for incidental take permits outline factors to consider when determining incidental take permit duration (50 CFR 17.32 and 222.307). These factors include duration of the applicant's proposed activities and the expected positive and negative

effects on covered species associated with the proposed duration, including the extent to which the operating conservation program will increase the long-term survivability of the listed species and/or enhance its habitat. For instance, if the permittee's action or the implementation of the conservation measures continually occur over a long period of time, such as with timber harvest management, the permit would need to encompass that time period.

The Services will also consider the extent of information underlying the HCP, the length of time necessary to implement and achieve the benefits of the operating conservation program, and the extent to which the program incorporates adaptive management strategies. Significant biological uncertainty may necessitate an adaptive management strategy. The gathering of new information through the monitoring program requires an appropriate period of time for meaningful interpretation of new information into changes in management; this analysis could necessitate a permit with a longer duration. However, if an adaptive management strategy that significantly reduces the risk of the HCP to that species cannot be devised and implemented, then, if the issuance criteria are met, a shorter duration may be appropriate.

The varying biological impacts resulting from the proposed activity (e.g., variations in the length of timber rotations and treatments versus a real estate subdivision buildout) and the nature or scope of the permitted activity and conservation program in the HCP (e.g., housing or commercial developments versus long-term sustainable forestry; conservation easements) account for variation in permit duration. Longer permits may be necessary to ensure long-term active commitments to the HCP and typically include up-front contingency planning for changed circumstances to allow appropriate changes in the conservation measures.

Public Participation

What Is the Public Participation Requirement for HCPs?

As stated in the HCP Handbook in Chapter 6.B, we currently require a minimum 30-day public comment period for all HCP applications. This comment period is required by section 10(c) of the ESA and the implementing regulations at 50 CFR 17 and 222. The Services recognize the concern of the public regarding an inadequate time for the public comment period, especially for large-scale HCPs. With a few

exceptions, we are extending the minimum comment period to 60 days for most HCPs. The exceptions to a 60-day comment period would be for low-effect HCPs, individual permits under a programmatic HCP, and large-scale, regional, or exceptionally complex HCPs.

The Services believe the current 30-day public comment period provides enough time for interested parties to review major HCP amendments and low-effect HCPs. Low-effect HCPs have a categorical exclusion from NEPA and, therefore, do not have a NEPA public participation requirement. Similarly, in some cases, individual permits issued under a programmatic HCP may not need additional public review since the larger, programmatic HCP would have undergone more extensive review.

However, for large-scale, regional, or exceptionally complex HCPs, the Services are increasingly encouraging applicants to use informational meetings and/or advisory committees. In addition, the minimum comment period for these HCPs is now 90 days, unless significant public participation occurs during HCP development. With the extension of the public comment periods, the recommended timeline targets for processing incidental take permits are extended accordingly: The target timeline from receipt of a complete application to the issuance of a permit for low-effect HCPs will remain up to 3 months, HCPs with an Environmental Assessment (EA) will be 4 to 6 months, and HCPs with a 90-day comment period and/or an Environmental Impact Statement (EIS) may be up to 12 months.

How Do the Services Let Interested Parties Know About the HCP's Comment Period?

During the public comment period, any member of the public may review and comment on the HCP and the accompanying NEPA document, if applicable. If an EIS is required, the public can also participate during the scoping process. We announce all complete applications received in the **Federal Register**. When practicable, the Services will announce the availability of HCPs in electronic format and in local newspapers of general circulation.

How Do the Services or Applicants Incorporate Public Participation During the Development of an HCP?

The Services will strongly encourage potential applicants to allow for public participation during the development of an HCP, particularly if non-Federal public agencies (e.g., State Fish and Wildlife agencies) are involved.

Although the development of an HCP is the applicant's responsibility, the Services will encourage applicants for most large-scale, regional HCP efforts to provide extensive opportunities for public involvement during the planning and implementation process.

The Services encourage the use of scientific advisory committees during the development and implementation of an HCP. The integration of a scientific advisory committee and perhaps other stakeholders improves the development and implementation of any adaptive management strategy. Advisory committees can assist the Services and applicants in identifying key components of uncertainty and determining alternative strategies for addressing that uncertainty. We also encourage the use of peer review for an HCP. An applicant, with guidance from the Services, may seek independent scientific review of specific sections of an HCP and its operating conservation strategy to ensure the use of the best scientific information.

How Do the Services Consider Tribal Interest in an HCP?

We recommend that applicants include participation by affected Native American tribes during the development of the HCP. If an applicant chooses not to consult with Tribes, under the Secretarial Order on Federal-Tribal Trust Responsibilities and ESA, the Services will consult with the affected Tribes to evaluate the effects of the proposed HCP on tribal trust resources. We will also provide the information gained from the consulted tribal government to the HCP applicant prior to the submission of the draft HCP for public comment and will advocate the incorporation of measures that will conserve, restore, or enhance Tribal trust resources. After consultation with the tribal government and the applicant and after careful consideration of the Tribe's concerns, we will clearly state the rationale for the recommended final decision and explain how the decision relates to the Services' trust responsibility.

Literature Cited

- Dovers, S. R. and C. D. Mobbs. 1997. An alluring prospect? Ecology and the requirements of adaptive management. Klomp, N. I. & Lunt, I. D. (eds.). *Frontiers in Ecology: Building the Links*. Elsevier Science, Oxford.
- Elzinga, C. L., Salzer, D. W., and J. W. Willoughby. 1998. *Measuring and monitoring plant populations*. BLM Technical Reference 1730-1. BLM, Denver, CO.
- Gunderson, L. 1999. Resilience, flexibility and adaptive management—antidotes for

- spurious certitude? *Conservation Ecology*. 3(1): 7 [online] URL: <http://www.consecol.org/vol3/iss1/art7>.
- Holling, C. S. (ed). 1978. *Adaptive Environmental Management and Assessment* Wiley, Chichester.
- Johnson, B. L. 1999. Introduction to the special feature: adaptive management—scientifically sound, socially challenged? *Conservation Ecology* 3(1):10 [online] URL: <http://www.consecol.org/vol3/iss1/art10>.
- Johnson, B. L. 1999. The role of adaptive management as an operational approach for resource management agencies. *Conservation Ecology* 3(2): 8 [online] URL: <http://www.consecol.org/vol3/iss2/art8>.
- Lee, K. N. 1999. Appraising adaptive management. *Conservation Ecology* 3(2): 3 [online] URL: <http://www.consecol.org/vol3/iss2/art3>.
- McLain, R. J. & Lee, R. G. 1996. Adaptive management: promises and pitfalls, *Environmental Management*, 20: 437–448.
- Rogers, K. 1998. Managing science/management partnerships: a challenge of adaptive management. *Conservation Ecology* [online] 2(2): Response 1 [online] URL: <http://www.consecol.org/vol2/iss2/resp1>.
- Shindler, B., B. Steel, and P. List. 1996. Public judgements of adaptive management. *Journal of Forestry* 94: 5.
- Walters, C. 1986. *Adaptive Management of Renewable Resources* Macmillan, New York.
- Walters, C. 1997. Challenges in adaptive management of riparian and coastal ecosystems. *Conservation Ecology* 1(2):1 [online] URL: <http://www.consecol.org/vol1/iss2/art1>.
- Walters, C. J. and C. S. Holling. 1990. Large-scale management experiments and learning by doing. *Ecology* 71: 2060.

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