

Developing Conservation Strategies and Best Management Practices

Conservation strategies can be developed through a basic 4-step process and can be used to develop “best management practices” to be used to guide the development of future projects. These steps are designed to integrate species’ needs with the needs of the action agencies and to provide a means to jointly fulfill the requirements of section 7 consultation.

1. Identify the threats to each listed species’ conservation, both range-wide and within the action area (if any), along with the level of concern associated with each threat. The threats that the action agencies can influence should be specifically identified. When possible, these threats should be categorized by the five listing factors identified in section 4 of the Act and in terms of effects to reproduction, numbers, and distribution in order to best facilitate the development of future effects analyses;
2. Identify conservation or management units (e.g., watersheds, eco-regions, ranger districts, resource areas, field offices, Service regions, etc.), and the threats affecting each unit. These units may be based on various factors such as the ecological roles that each will be expected to fulfill in providing for the conservation of the species, the different activities that will occur within the area, differences in ecological conditions, etc. The intent is to maintain flexibility in the scale of these units to allow them to vary with the needs of each individual situation. This step should use information developed in the previous step;
3. Identify conservation goals for the species. These conservation goals should be derived from the information developed in the previous two steps, should consider the various ecological factors associated with each area, and should utilize information regarding the specific types of future activities anticipated to be proposed. In this step the biological justification for each goal and potential methods for achieving it should be explained. The goals typically should be broad in nature, allowing for flexibility in project designs to meet the needs of individual situations. In other words, they should identify “what” to achieve rather than “how” to achieve it. At times it may be useful to frame the conservation goals within the context of anticipated future actions.
4. Develop conservation/management unit strategies for implementing future activities. This will typically involve the development of best management practices for future projects. These “design criteria” should be based on the information developed in the previous steps and provide guidance to project proponents for use in developing their actions. The BMPs should provide for efficient progress towards beneficial long-term objectives while ensuring that short-term effects do not rise to the level of jeopardy or adverse modification; in other words, they should assist in achieving the conservation goals identified in step 3 above. If the BMPs are designed correctly, and if future projects are developed within them, the action agencies will have high assurance of the results of future section 7 consultations. This predictability can be invaluable to planning and preparation processes.

Completion of these steps fulfills two main streamlining objectives. First, it completes a substantial portion of the effects analysis at one time and early in the consultation process. In the standard consultation process, these steps are typically not completed until the latter part of

consultation and are repeated for each individual proposed action. Completing this process early and at one time can be an effective technique for streamlining future consultations. Second, it will result in design criteria that reduce potential adverse effects to listed and proposed resources within the constraints of the project proponent=s needs and will provide a predictable consultation process.

Best Management Practices

“Best management practices” are essentially design criteria that can be used by project proponents to assist them in designing their proposed projects. The purpose of these BMPs is to provide measures that can be incorporated into project designs to address species’ needs as early as possible so that appropriate adjustments can be made while there is the maximum flexibility to modify project designs. Such early coordination can result in the Service receiving projects that incorporate many of the measures that will ultimately facilitate the expediting of section 7 consultation.

There are three basic areas that should be addressed by BMPs. First is **avoidance**. At times there may be simple measures that can be incorporated to avoid exposure of listed resources to the potential effects of a proposed activity. For example, if a proposed activity will have short-term impacts, it may be possible to conduct the activity outside of the time period in which the species will be present. Note that the ability to accomplish this will vary by species, ecological circumstances, and project needs.

The second category of BMPs is **minimization**. Many times it will not be possible to avoid the potential effects of a proposed project. However, there may be measures that can be incorporated into the project design that will minimize the resulting effects. For example, it may be possible to erect siltation fences that will minimize, though not eliminate, the addition of silt to nearby streams.

The third category of BMPs is **mitigation**. Once it is determined that effects to a species will not be avoided and have been minimized to the extent that is determined to be reasonable, the remaining effects should be mitigated to ensure that the conservation status of the species will not be degraded. For example, if it is not possible to implement a proposed activity without destroying a certain amount of habitat, a project proponent may propose to restore other areas that do not currently contain habitat in order to offset the remaining effects of their activity.

Note that ecological conditions often vary greatly across the landscape. A proposed project in one area may not have the same effects as a similar project in a different area. Therefore, we anticipate that not only may there be different BMPs for different species, but there may also be different BMPs for the same species in different areas. Combine this with the need to ensure that BMPs for different species within the same area are compatible, and this can become a daunting task. For this reason we envision the development of a series of BMPs that may need to be combined in varying combination to result in the appropriate results. Due to this potential we anticipate that many times it will be necessary to provide a series of BMPs with a discussion of when each is appropriate. Some may find it valuable to develop dichotomous keys that walk project proponents through the process of deciding which combination of BMPs is appropriate

for their proposed activity. Others may find it useful to identify certain types of effects and the appropriate BMPs for addressing each.

The value of BMPs will vary with the species, activities, and settings involved. Ultimately it will be important to ensure that project proponents understand that the BMPs may not be the complete universe of potential project design activities that must be considered, but rather a starting point for consideration and discussion. At a minimum they will prepare the project proponent for what may be expected; at times it will result in the Service being presented with projects that are designed exactly as we would hope. While the former is probably more likely early in this process, over time we hope that the latter will become more common.

Finally, the resulting BMPs should take a “big picture” view of species conservation situations with a goal of ensuring that the BMPs contribute to solving the conservation issues of the species. In other words, they should be designed with the thought that if all projects are implemented using the recommended BMPs, species conservation (within the context of these projects) would be achieved. To accomplish this, BMPs should be developed within the context of a conservation strategy. In this way it should be possible to assure that projects using the proper combination of BMPs will not be likely to jeopardize the continued existence of listed species.