

Service in May 1994 for listing as a threatened species, but the proposal was withdrawn in lieu of implementation of a multi-agency “Virgin Spinedace Conservation Agreement and Strategy” that will ensure that the conservation needs of the fish are met. Examples of other withdrawals of proposed listings or removals of candidate status due to CCAs include: the Pecos pupfish (*Cyprinodon pecosensis*), proposed listing withdrawn in March 2000; the Arizona bugbane (*Cimicifuga arizonica*), candidate status removed October 1999; the Umpqua mariposa lily (*Calochortus umpquaensis*), candidate status removed September 1999; and the spotted frog - Wasatch and west desert populations (*Rana luteiventris*) -, proposed listing withdrawn April 1998.

The Agencies’ deliverables. In summary, the Agencies need to supply the Service with the following, in the order that they are listed here, to complete the programmatic consultation process:

- (1) Interagency agreement that should include a funding mechanism to accomplish staffing, training programs, and conservation measures, as appropriate;
- (2) A request for a species list to allow project effects to be assessed;
- (3) A biological assessment with a determination on level of effect to determine appropriate consultation process (*i.e.*, informal or formal, programmatic or site-specific); and,
- (4) A request for concurrence on NLAA determinations or initiation of formal consultation for: (a) programmatic; or (b) independent site-specific section 7 consultation.

Avoiding irreversible and irretrievable commitment of resources. Section 7(d) of the Act requires: “After initiation of consultation required under subsection (a)(2), the Federal agency and the permit or license applicant shall not make any irreversible or irretrievable commitment of resources with respect to the agency action which has the effect of foreclosing the formulation or implementation of any reasonable and prudent alternative (RPA) measures which would not violate subsection (a)(2).” Thus, the Agencies must review all actions to ensure that funds are not spent or actions implemented that would preclude the ability of a project to offset its effects. Avoidance and minimization of impacts are the most important methods of reducing project related effects on listed species. Therefore, the Agencies, particularly the State DOT’s, should maximize their use of biological information to avoid and minimize impacts to listed species in the beginning of the highway planning process. The Agencies must not plan, design, fund, or implement actions on highway projects so as to diminish the Service’s opportunities to examine alternate routes, designs, needs, or methods to achieve project purposes, to avoid impacts to listed species, or to conserve other important fish and wildlife resources.

Procedures for Implementing Programmatic Consultation Strategies

Establishing programs and procedures. As a first step, the Service and the Agencies should have an

initial meeting to identify program elements, important personnel, appropriate teams, relevant time lines and geographic areas that are important to proposed projects. In addition, there should be an effort to establish reimbursable funding agreements to ensure adequate staff to accomplish consultation in a timely manner. The goal of these reimbursable funding agreements is to reduce project delays through early review of the consultation package to ensure that projects are consistent with the programmatic biological opinion, and, if consistent, to reduce the time frame for consultation to 30 days. These agreements should continue throughout implementation of the programmatic consultation to ensure joint development of each project so as to avoid and minimize impacts at an early stage through geographic placement and configuration of projects. Minimal components of such agreements should include:

- criteria on how each agency's participation and involvement will occur;
- a section 7(a)(1) agreement that shows conservation/recovery actions that the Agencies are taking to fulfill their section 7(a)(1) responsibilities;
- project design criteria;
- identification of threatened and endangered species conservation/recovery objectives which may tier off those contained in the 7(a)(1) agreement;
- identification of sensitive areas containing listed species or critical habitat through use of GIS;
- establishment of a database to tally cumulative incidental take exempted for projects; and,
- establishment of dispute resolution procedures.

Other components that might be included are: development and implementation of standardized action recommendations to resolve listed and proposed species conflicts; and implementation of innovative conservation techniques, such as conservation banks. Conservation banks are established for two very different purposes:

- (A) to promote proactive section 7(a)(1) efforts by Federal agencies; and,
- (B) to minimize impacts of projects through section 7(a)(2).

Conservation banks established to promote 7(a)(1) benefits should not be used to offset 7(a)(2) impacts. Nationwide, experience with developing, implementing, and monitoring conservation banks for listed species is extremely limited. The Service is currently developing guidelines for conservation banking. The guidelines will address issues such as the appropriate use of conservation banking,

monitoring efforts needed to assure effectiveness, and legal documents needed to implement a conservation bank.

Developing a section 7(a)(1) agreement. The Agencies should fulfill their 7(a)(1) requirement to, “utilize their authorities in furtherance of the purposes of this Act by carrying out programs for the conservation of [listed] species . . .”, as a precursor to meeting their 7(a)(2) consultation responsibilities. The 7(a)(1) requirement calls for proactive beneficial actions that raise the species environmental baseline to help lessen the overall risks to species, reduce the need for future listing of species, and potentially enable projects to go forward with fewer restrictions. These 7(a)(1) goals are consistent with, and complementary to, those of 7(a)(2). Guidance is currently being developed by the Service on fulfilling section 7(a)(1) and what would be needed in a 7(a)(1) agreement.

Developing a biological assessment. A biological assessment is required for all Federal actions that are major construction activities. The action area is based on direct and indirect effects of the action. A biological assessment includes an evaluation of the potential effects of the action on species and habitats. The biological assessment should include GIS maps of the project area, photographs, and other illustrations to facilitate analysis. The biological assessment will be jointly developed, and will serve the purpose of a planning and scoping document. The Agencies will provide funding to the Service to facilitate this joint development. The first step in the biological assessment process is a request for, or verification of, a species list. The Service must respond to this request within 30 days.

The purpose of a biological assessment as discussed in 50 CFR §402.12 (a) of the Joint Regulations on Endangered Species, is to *evaluate the potential effects of the action on listed and proposed species and designated and proposed critical habitat and determine whether any such species or habitat are likely to be adversely affected by the action and . . . to determine whether formal consultation or a conference is necessary*. As recommended in §402.12 (f) of these regulations, a biological assessment may include: *(1) The results of an on-site inspection of the area affected by the action to determine if listed or proposed species are present or occur seasonally; (2) the views of recognized experts on the species at issue; (3) a review of the literature and other information; (4) an analysis of the effects of the action on the species and habitat, including consideration of cumulative effects, and the results of any related studies; and, (5) an analysis of alternative actions considered by the Federal agency for the proposed action.*

The biological assessment should be completed within 180 days of receipt of, or concurrence on, the species list.

Implementing programmatic strategies. Key strategies will be implemented as follows (examples of each are included in Attachment 2):

- (1) The Agencies will develop a matrix of projects that shows the general location, type, projected time of completion, and projected timing of various construction activities,

etc., for proposed projects. This matrix will be used to develop a project description for the programmatic consultation. In the future, when projects are ready for implementation, exact information on project location and timing will be necessary to make a final effect determination and, in the case of LAA actions, quantify incidental take of individuals for a particular listed species.

- (2) Service FO staff will generate a species list showing listed and candidate species and designated critical habitat likely to be impacted by proposed projects, within 30 days of a request. This list will be updated every 90 days, or will remain valid until new information or new listing requires updating, and will be used to reinstate/amend the programmatic biological opinion. The Agencies and the Service FO staff will jointly develop GIS maps, where appropriate, that overlay project areas with species occurrence information. This critical tool will allow a preliminary estimate of the areas where direct and indirect impacts to listed, proposed, and candidate species and habitat components/constituent elements are likely to occur.
- (3) Service staff will make available published draft and finalized recovery plans, biological studies, and biological opinions that include species affected by the Agencies' projects so that the range-wide status of the species may be determined. Those aspects of the species' biology and ecology that are relevant to the proposed action are used to establish the status of species in the action area of the project.
- (4) The Service and the Agencies should identify regional guidance that has undergone section 7 consultation to maintain consistency with past efforts.
- (5) The Service, in consultation with the Agencies, will jointly develop general strategies for addressing species conservation needs. Available literature, State conservation strategies, candidate conservation strategies, candidate conservation plans, draft or final recovery plans or outlines, and other sources of relevant scientific and commercial information can serve as guides for these strategies. These strategies may be similar to the "biological goals and objectives" contained within the final 5-point policy in 65 **FR** 106:35242-35257. Biological goals are the broad guiding principles for conserving species and provide the rationale behind the minimization and other conservation strategies. Biological objectives are subsets of these and represent specific measurable targets for achieving the goal of conserving the species. The biological goals and objectives should be commensurate with the specific impacts and duration of the proposed action.

The Service, in consultation with the Agencies, may use recovery plans or conservation strategies to develop biological "zones" for the purpose of precisely defining project effects on listed species and their habitats, as appropriate. Differentiating biological

“zones” in a geographic area is important because species may have evolved unique traits adapted to vegetation types, terrain, altitude, hydrology, air temperature, *etc.* unique to smaller subsets of the larger area. Examples of some of these traits are foraging behavior, prey selection, or reproductive behavior. The same species in a nearby area may have measurably different traits. Thus, having a geographic area divided into zones that reflect species adaptations to physical and biological features allows avoidance/minimization or replacement habitat to be tailored to those unique needs.

Additionally, projects may be batched by biotic communities or other relevant ecological delineation in which they occur. Identification of the biological or ecological communities allows a greater appreciation of the impact of projects on the ecological processes that may support habitat for listed species. Moreover, awareness of impacts to systems allows for identification and avoidance of indirect impacts of proposed actions to unlisted and candidate species that may not otherwise be recognized.

- (6) The Service and the Agencies staff should jointly identify direct, indirect and cumulative effects, interdependent and interrelated actions, and add these to the environmental baseline so that a jeopardy or no jeopardy determination can be made. Indirect effects are those that are caused by the proposed action and are later in time, but still reasonably certain to occur. Cumulative effects are effects of future State, Tribal, local or private activities, not involving Federal activities, that are reasonably certain to occur within the action area of the Federal action subject to consultation. Interdependent actions are those that have no independent utility apart from the action under consideration. Interrelated actions are those that are part of a larger action and depend on the larger action for their justification.
- (7) After development of strategies 1 - 6 above, avoidance and minimization procedures will be jointly developed for inclusion in the project description of the programmatic biological opinion. Standards and guidelines that have been developed in recovery plans, prior biological opinions or regional guidance should be used when possible. Avoidance and minimization might include: placement of roads in areas to avoid impacts to species, their migration routes, and their habitats; removal of old/disused roads that block species migration routes; timing of construction to avoid sensitive life-history events such as courtship or reproduction; use of types of construction equipment with rubber wheels or baffled exhausts; use of fencing, buffers, *etc.* around construction sites; and, educating workers about species life-history.
- (8) The Service and the Agencies staff should jointly develop the biological assessment and sort projects into categories of NE, NLAA, LAA, or “other” (projects where a

determination cannot be made at the programmatic level). For NE projects, no consultation is necessary, but a record of the determination should be filed by the Service FO and the Agencies. A NLAA project will require a written concurrence letter from the Service FO, but these may be done in batches if multiple project determinations are done early in the process.

For LAA projects, actions having similar effects should be grouped into categories such as activities having no surface disturbance, minimal surface disturbance, and extensive surface disturbance. This allows impact avoidance and minimization strategies to be developed and applied to a suite of activities related to type and level of impact and expedites formulation of a low effect project design or an incidental take statement with standardized terms and conditions. If a jeopardy determination is made on LAA projects, then the Service and the Agencies should screen out all but low effect projects for inclusion in the programmatic. Otherwise, each individual project will need a formal consultation.

Site-specific information will be used to categorize the level and type of effect for “other” projects, where a determination cannot be made at the programmatic stage.

- (9) The Service and the Agencies will jointly develop methods to appropriately address project impacts. These methods will become part of the project description within the programmatic biological opinion. The following are methods of off-setting impacts:
- Protecting habitat involves permanently setting aside known areas of functioning ecosystems where listed species are present or have been present in the past. Without protection of these ecosystems, these areas may be destroyed or fragmented by urban expansion, agricultural usage, or other activities that degrade or alter habitats with associated loss in value. Therefore, protecting functioning ecosystems can provide the greatest benefit to species.
 - Restoring habitat entails returning the functions of a disturbed, degraded, or totally altered site to its original condition or to some approximation of that condition. For instance, the action of installing an underground culvert through a species’ habitat may entail removal of vegetation and soil disruption. Regrading and planting appropriate vegetation may restore habitat values. In general, for disturbed habitats, restoration yields the greatest amount of benefit with the least amount of risk.
 - Enhancing habitat is the process of improving one or more functions of existing habitat to meet certain goals. For instance, altering the slope of an embankment

may allow hydrological functions including runoff and erosion patterns to return to a more normal regime thus benefitting aquatic and riparian species. In another case, supplemental planting of an area may provide additional foraging area, erosion control, and refugial areas that may improve the functioning of an ecosystem.

- Creating habitat entails converting unsuitable habitat types to suitable for a particular species. For instance, a dry upland could be graded down or sub-irrigated to provide hydrology that would support establishment of preferred habitat for a riparian species. This form of habitat conservation generally has a higher risk of failure and should be used only when protection or restoration opportunities are absent or when the amount of suitable habitat for a species is so low that additional created habitat is essential for the species and will not endanger another listed or proposed species.

The Service is currently developing guidelines for conservation banking which may be used to implement these methods of off-setting impacts.

- (10) The Service will evaluate the appropriateness of providing an incidental take statement at the programmatic versus the site-specific level. Section 9 of the Act, and Federal regulation pursuant to section 4(d) of the Act, prohibits the take of endangered and threatened species, respectively, without special exemption. Take is defined by the Act as harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct.

Additionally, an action may destroy or adversely modify designated critical habitat. Per 50 CFR §402.02, “destruction or adverse modification means a direct or indirect alteration that appreciably diminishes the value of critical habitat for both the survival and recovery of a listed species. Such alterations include, but are not limited to, alterations adversely modifying any of those physical or biological features that were the basis for determining the habitat to be critical.”

In accordance with these sections of the Act and Federal regulations, in the programmatic consultation, it may be important to set limits on the level of impact, number of individuals of a listed species taken, or the amount of habitat affected or lost. Recovery plans, regional guidance and other programmatic biological opinions should indicate the necessity for setting these limits. These limits will be used to determine whether future on-site projects fit within the programmatic framework.

- (11) The consultation must have a monitoring component if the programmatic consultation exempts incidental take. Additionally, if incidental take is not exempted at the

programmatic level, the programmatic consultation should provide a framework for monitoring and reporting incidental take that may be exempted for individual projects in the future. A database containing an interactive means of reporting and updating incidental take is crucial to the success of the programmatic consultation process.

Agencies requesting formal consultation for projects involving the incidental take of a listed species must monitor the impacts of incidental take as required by the Act: agencies “must report the progress of the action and its impact on the species” (50 CFR §402.14(i)(3)). This monitoring is important in tracking actions assessed within the programmatic biological opinion. Monitoring provides the Service FO with information essential to assessing the effects of the various actions on listed species and designated critical habitat. The information should be used to amend, as appropriate, the programmatic biological opinion and site-specific biological opinions, RPAs, reasonable and prudent measures (RPMs), terms and conditions, and to make any necessary adjustments to the baseline.

Project monitoring should be designed to do the following: (a) detect the adverse effects resulting from the proposed action; (b) detect when the level of anticipated incidental take is approached; (c) raise a red flag if the level of anticipated incidental take is exceeded; and, (d) determine the effectiveness of RPMs. The date for the Agencies to transmit monitoring reports should be negotiated during the programmatic consultation process. Minimally, the monitoring reports should be due annually. However, reports may be used to track progress of proposed actions if submitted quarterly.

Developing a programmatic biological opinion. Once the biological assessment is completed, a determination on the need for formal consultation will be made by the Service. Formal consultation is required when a Federal action is likely to adversely affect listed species. When it is determined that an action may affect, but is not likely to adversely affect listed species, the consultation between the action agency and the Service may be handled informally (see 50 CFR §402.11 for further information on the informal or early consultation process). If formal consultation is necessary, a programmatic biological opinion will be developed by the Service in consultation with the Agencies. Attachment 3 gives a template for a programmatic biological opinion. This programmatic biological opinion will: (1) describe all of the potential projects; (2) contain suggested avoidance/minimization measures, placed in the project description, if appropriate; (3) describe the status and environmental baseline of listed, proposed, and candidate species in the project area; (4) reiterate potential effects of the project actions as evaluated in the biological assessment; and, (5) possibly describe limits to the amount of project impacts, take, and habitat affected and/or lost. A jeopardy analysis will be done to determine whether the programmatic process should proceed (see jeopardy discussion below).

Adverse effects of the project should be avoided and minimized, as discussed above, and included in the project description. The appropriateness of conservation ratios to offset effects for various listed species

and habitats should be discussed after effects are avoided and minimized to the greatest extent possible, and guidance given on how conservation ratios might be applied. Depending on the level and type of effect of the project, and the sensitivity of the habitat affected, such ratios might change. For example, a project affecting very sensitive habitat might need to replace that habitat at a 3:1 or higher ratio.

If additional projects are identified at a future date, it may be possible to append them to the programmatic opinion. Alternatively, it may be appropriate to reinitiate consultation on the programmatic process to modify the project description to include additional projects and conservation measures, revise the environmental baseline and effects section, and make a determination on the need for revising the incidental take statement. Thus, triggers for reinitiating consultation are: (1) the amount or extent of taking specified in the incidental take statement is exceeded; or (2) new information reveals effects not considered; or (3) the action is later modified in a way that causes an effect not considered in the biological opinion; or (4) a new species is listed or critical habitat designated that may be affected by the action. New conservation ratios or modified conservation actions may need to be developed depending on the level and type of effects, and habitats and species to be affected.

Determining jeopardy/No jeopardy. Jeopardy/no jeopardy will be determined by the Service, with assistance from the Agencies, on the project together with its conservation actions described in the biological assessment. [Jeopardy is defined in 50 CFR §402.02 as an “appreciable reduction” in the likelihood of survival and recovery.] Thus, the final analysis looks at whether, given the aggregate of direct, indirect, and cumulative effects, the species can be expected to both survive and recover. In other words, there should not be a worsening of a listed species’ conservation status. For this reason, it is essential that proposed projects incorporate appropriate conservation actions. If a jeopardy determination is made, then the Service and the Agencies should select projects having reduced effects for inclusion in a programmatic consultation. Otherwise, consultation must proceed on a project by project basis.

Exempting programmatic take. In some instances, while the exact extent of the take may not be known, it may be desirable to exempt up to a specified amount of take for the programmatic that will not result in jeopardy. Thus, for the duration of the programmatic consultation, limits may be set on the level of impact, number of species taken, or the amount of habitat affected or lost because of existing trends for the species and habitat. In this situation, a maximum level of impact, number of individuals taken, or amount of habitat affected or lost can be set for the duration of the programmatic opinion. This maximum level may be defined on a smaller time scale (*e.g.*, a monthly, yearly, or 5-year maximum) with an overall maximum defined for the duration of the programmatic biological opinion. For instance, in a ten-year programmatic opinion, a species may have a maximum of three mortalities yearly with a ten-year maximum of 20 mortalities. It may also be important to limit the take geographically (*e.g.*, one mortality yearly per county). If the maximum is reached, reinitiation of the programmatic opinion is required.

Completing site-specific consultations. The Agencies will need to complete biological assessments

on site-specific projects after the programmatic consultation is completed. A final determination should be made on project effects (*i.e.*, NE, NLAA, or LAA) and on the appropriateness of tiering the project to the programmatic. For projects that do not fit under the umbrella of the programmatic, an individual project consultation must occur with a separate jeopardy/no jeopardy determination.

If a jeopardy determination is made, then the Service must make available a RPA, if one exists, that would avoid jeopardy. A RPA must:

- be consistent with the intended purpose of the action;
- be consistent with the scope of the Federal agency's legal authority;
- be economically and technologically feasible; and,
- not jeopardize the continued existence of listed species or result in destruction or adverse modification of critical habitat.

For projects that fit under the programmatic, the Agencies and Service should jointly produce template biological assessments that will allow necessary information to be inserted into the appropriate format.

Developing template biological assessments for site-specific projects. These templates should include a section for a complete project description including GIS information showing the exact location of the project and the listed, proposed, and candidate species, if known, and designated and proposed critical habitat occurring in the action area, if known. The exact timing of the project must be included. Additionally, the template must fit this project into the programmatic consultation by showing the effects of the project within the context of the programmatic opinion, and how those effects will be addressed. In many cases, this document will refer to a type of project identified in the programmatic opinion but must additionally identify actions unique to the specific project. A precise estimate of the expected level of impact, the amount of incidental take of individuals of listed species, and the amount of habitat affected or lost must be included. A monitoring program should be described that allows detection of project effects, level of incidental take, exceedance of exempted incidental take, and effectiveness of avoidance/minimization measures and conservation actions. Since this information may be contained in the programmatic consultation, it may be included by reference, as appropriate. A monitoring report should be provided to the Service FO at a minimum, annually, but preferentially, quarterly, to track project effects, incidental take, and beneficial actions.

These biological assessments will assess and ensure that the proposed project is in compliance with the project description and its avoidance and minimization strategies, RPMs, and terms and conditions, if part of the programmatic biological opinion. If there are no additional/new impacts identified that were not previously considered in the programmatic, a letter that appends the programmatic could be issued in

a 30-day time period for the site-specific project.

Transmitting a 30-day approval letter. After receiving and reviewing the agency's biological assessment, if appropriate, the Service will provide the Agencies with a short letter restating the Service's understanding of the project and appending the new project to the programmatic, indicating that it is consistent with the programmatic consultation, or identifying why it is not appropriate to implement the proposed project under the programmatic consultation. If it is determined that it is not appropriate to append the proposed project to the programmatic consultation, the Service should identify their reasoning for this determination, and, if possible, suggest modifications that can be made to allow programmatic consultation coverage. Generally, because appropriate project designs and conservation actions are pre-developed in the context of the Agencies' overall program, consultation times, workloads associated with approvals, and the likelihood of negative determinations will be greatly reduced.

This short letter should explain how the project meets the standards of the programmatic and provide a quantification of the impacts and take of the individual project, replacement habitat needs, if any, and a tally of the overall impacts and level of take that has been implemented under the programmatic, to date. In addition, it should advise on the quantity of impacts and/or take allowable for the remaining time interval (*i.e.*, monthly, yearly, bi-annual, *etc.*). It may be appropriate for this appendage letter to be a template biological opinion for individual projects that involves inserting the site-specific information.

An interactive database should be set up that allows entry of information on the level of impacts, number of individuals of a listed species taken, and habitat lost. This database should provide an automatic, cumulative tally of this information. At a minimum, this database should include the following fields: (1) incidental take statement duration; (2) amount of allowable take; (3) location of permitted action and conservation areas; (4) amount of area in action area, (5) species and habitats in biological opinion; and, (6) nature of allowable activities that conform with the incidental take statement. This tally will indicate the need to reinitiate the programmatic due to unforeseen levels of impact, take, or habitat loss, and will allow for tracking of the baseline.

Elevation procedure. When differences in interpretation prevent the Service consultation office and the Agencies from reaching a workable consensus, or when there is a need to clarify policy and direction, or to ensure upper management (*i.e.*, Regional Office Director or the Agencies equivalent) understanding or concurrence, issues should be elevated in accordance with the following:

Elevation can be accomplished by a short letter co-signed at the field supervisor level by each agency that is accompanied by a position statement written by staff from each agency clarifying why consensus cannot be reached and transmitted to the Regional Office Director or the Agencies equivalent. Each agency should be allowed to review draft and final versions of position statements. A position statement from one agency need not be approved by staff from another agency. Once upper level management have made a determination on the issue, then a

short, joint letter should be routed down communicating this information. This letter will become part of the administrative file for each agency. If the determination does not resolve the issue, an appeal may be made to the Directors, or equivalent, office of each agency. The elevation should not take more than 30-days so as to maintain the momentum of the consultation process. Issues that might be elevated would be process issues but might include effects determinations, information needs for biological assessments, and disagreement on compliance with management plans and/or the programmatic consultation. Non-discretionary actions mandated by law should not be elevated (*e.g.*, determinations of jeopardy or adverse modification).

Other Consultation Related Processes

Anadromous fish guidance. In the July 1999, *Streamlined Consultation Procedures* referred to in regard to Interagency teams, a watershed-scale strategy is discussed for dealing with anadromous fish. The Agencies should use this strategy to deal with projects that affect anadromous fish and their habitat. A key document developed by NMFS in collaboration with the Service, Forest Service, and BLM as a method to evaluate effects of human activities on these fish and their habitat is the September 4, 1996, *Making Endangered Species Act (Act) Determinations of Effect for Individual or Grouped Actions at the Watershed Scale*. The document is based on a “Matrix of Pathways and Indicators,” a tool for characterizing environmental baseline conditions for anadromous fish habitat and predicting the effect of human activities on these conditions. The matrix of pathways and indicators provides generalized ranges of functional values for aquatic, riparian, and watershed elements that collectively describe properly functioning conditions for aquatic habitat essential to the long-term survival of anadromous fish. The Service has developed a similar matrix for bull trout (*Salvelinus confluentus*).

“Essential fish habitat” (EFH) is defined in Section 3(10) of the Magnuson-Stevens Fishery Conservation and Management Act, as amended in 1996 (MSFCMA), as “those waters and substrate necessary to fish for spawning, breeding, feeding or growth to maturity”. This language is interpreted in the 1997 Interim Final rule 62 **FR** 66551, section 600.10 Definitions. The amendments require NMFS to identify EFH, actions that would adversely affect EFH, and actions to conserve EFH. They also require NMFS, in coordination with the Fish Management Committees, to consult on and recommend conservation and enhancement measures for actions undertaken by any federal agency that may adversely affect EFH. Federal agencies are required to consult with NMFS regarding any activity or proposed activity, authorized, funded, or undertaken by the agency, that may adversely affect EFH (Section 305(b)(2) of the MSFCMA). The trigger for an EFH consultation is when a Federal action is likely to adversely affect EFH. Since some EFHs may not have any listed species in them, or, if they do, those species may not be adversely affected by every project, consultations over adverse impacts to those EFHs are still required by the MSFCMA even if consultations may not be required by the Act.

Secretarial Order 3206. This order was signed on June 5, 1997 by the Secretaries of Interior and Commerce to clarify responsibilities of their respective agencies when actions taken under the authority