



GAO

Accountability \* Integrity \* Reliability

United States Government Accountability Office  
Washington, DC 20548

April 6, 2006

Congressional Requesters:

Subject: *Endangered Species: Time and Costs Required to Recover Species Are Largely Unknown*

The Endangered Species Act of 1973 protects species facing extinction (endangered species) or likely to face extinction (threatened species) and the ecosystems upon which they depend. The act has long been a lightning rod for political debate about the extent to which the nation's natural resources should be protected and how best to protect them. Implementation of the act has also been the subject of numerous lawsuits that have consumed significant program resources.<sup>1</sup> Since the act's inception, about 1,300 domestic species have been placed on the list of threatened and endangered species. Supporters of the act claim it is an indication of the act's success that only 9 of these species have gone extinct; particularly, since by the time they are listed species, they are often in critical condition. Critics, on the other hand, counter that it is an indication of the act's failure that only 17 of these species have "recovered," or improved to the point that they no longer need the act's protection. However, we believe that these numbers, by themselves, are not a good gauge of the act's success or failure; additional information on when, if at all, a species can be expected to fully recover and be removed from the list would provide needed context for a fair evaluation of the act's performance. Similarly, estimates of the total costs to recover the species would be necessary to evaluate whether sufficient resources have been devoted to recovery efforts.

The Fish and Wildlife Service (FWS) and the National Marine Fisheries Service (NMFS), collectively referred to as "the services," are the federal agencies responsible for ensuring implementation of the Endangered Species Act.<sup>2</sup> The act generally requires the services to develop and implement recovery plans for the conservation and survival of endangered and

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<sup>1</sup>In 2002 and 2003, we reported that litigation relating to the Fish and Wildlife Service's critical habitat program consumes significant program resources. Courts remanded a number of these cases to FWS for reconsideration of critical habitat designations; consequently, FWS redesignated critical habitat for numerous species. At the time, we recommended that FWS expedite its efforts to develop guidance on designating critical habitat to reduce its exposure to future litigation. See GAO, *Endangered Species: Fish and Wildlife Service Uses Best Available Science to Make Listing Decisions, but Additional Guidance Needed for Critical Habitat Designations*, [GAO-03-803](#) (Washington, D.C.: Aug. 29, 2003); and *Endangered Species Program: Information on How Funds Are Allocated and What Activities Are Emphasized*, [GAO-02-581](#) (Washington, D.C.: June 25, 2002).

<sup>2</sup>The act requires the Secretaries of the Interior and Commerce to implement these responsibilities; the Secretaries have delegated implementation authority to FWS and NMFS. FWS has primary responsibility for fresh water and land species, while NMFS has primary responsibility for anadromous fish and most marine species.

threatened species.<sup>3</sup> As of January 2006, the services had finalized and approved 558 recovery plans covering 1,049 species, or about 82 percent of the 1,272 endangered or threatened species protected in the United States.

A 1988 amendment to the Endangered Species Act requires the services to incorporate, to the maximum extent practicable, three key elements in each recovery plan:

(1) *Site-specific management actions* – descriptions of such site-specific management actions as may be necessary to achieve the plan’s goal for the conservation and survival of the species.

(2) *Time and cost estimates* - estimates of the time required and cost to carry out those measures needed to achieve the plan’s goal and to achieve intermediate steps toward that goal.

(3) *Recovery criteria* – objective, measurable criteria which, when met, would result in a determination, in accordance with provisions of the act, that the species be removed from the list of threatened and endangered species (i.e., delisted). Courts have found that the Endangered Species Act requires the services to address each of five delisting factors to the maximum extent practicable when designing recovery criteria.<sup>4</sup> These five delisting factors are the same factors that are considered when listing a species: (1) the present or threatened destruction, modification, or curtailment of a species’ habitat or range; (2) overutilization of the species for commercial, recreational, scientific, or educational purposes; (3) disease or predation; (4) the inadequacy of existing regulatory mechanisms; or (5) other natural or manmade factors affecting a species’ continued existence.

Both of the services have guidance for developing recovery plans. FWS’s guidance was issued in 1990 and states that, among other things, recovery plans must include estimates of the time required for accomplishing recovery, assuming that sufficient funds are provided, and cost estimates to complete recovery of the species; if the estimate is uncertain, the nature of the uncertainty must be discussed in the plan.<sup>5</sup> FWS’s guidance also directs that recovery plans set forth precise, measurable criteria to determine when recovery has been achieved (if it is achievable); however, the five delisting factors are not specifically addressed in the guidance. NMFS’s recovery planning guidance, which was issued in 2004,

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<sup>3</sup>A recovery plan is not required if the Secretary of the Interior or the Secretary of Commerce finds that such a plan will not promote the conservation of the species.

<sup>4</sup>See *Defenders of Wildlife v. Babbitt*, 130 F. Supp.2d 121 (D.D.C. 2001); *Fund for Animals v. Babbitt*, 903 F. Supp. 96 (D.D.C. 1995). In *Defenders of Wildlife*, the court remanded the recovery plan to FWS to incorporate delisting criteria or to provide an adequate explanation regarding why delisting criteria could not practicably be incorporated. In *Fund for Animals*, the court remanded the plan back to FWS for revision of the recovery criteria.

<sup>5</sup>U.S. Department of the Interior, Fish and Wildlife Service, *Policy and Guidelines for Planning and Coordinating Recovery of Endangered and Threatened Species* (May 25, 1990).

also discusses time and cost estimates and recovery criteria.<sup>6</sup> NMFS's guidance states that plans should include a cost estimate for complete recovery and indicate the anticipated year all recovery criteria could be met, if all actions were fully funded at the indicated levels. Regarding recovery criteria, the guidance recognizes that legal challenges to recovery plans have affirmed the need to frame recovery criteria in terms of the five delisting factors. However, the guidance does not direct staff to address all five delisting factors or explain why it is not practicable to do so.

Another key provision of the 1988 amendment to the act requires the services to report biennially on efforts to develop and implement recovery plans for all listed species, and on the status of all species for which plans have been developed.<sup>7</sup> The reports include, on a species-by-species basis, information on the progress made to implement recovery actions and on whether a species is declining, increasing, or stable or if its status is uncertain. The reports are publicly available on the agencies' Web pages. Because these reports provide, in a concise and easily accessible format, summary information on all of the nearly 1,300 listed species, they are valuable tools that can be used for understanding the progress made on recovering species.

Proposed amendments to the Endangered Species Act are under consideration, and you have asked us to provide information on the recovery plans themselves and the progress made on their implementation to help facilitate this effort. To address these issues, for a randomly selected sample of 107 recovery plans, we identified the extent to which plans included (1) overall time and cost estimates to recover species and (2) the three key elements set forth in the 1988 amendment. We determined the plans' time and cost estimates and the extent to which they contain the key elements based on information contained in the plans. We also conducted work on a group of 30 selected species to determine the factors affecting the length of recovery and the role that recovery plans have played in the species' progress toward recovery. On February 8, 2006, we briefed your staffs on our findings relating to our work addressing the 107 recovery plans. At your request, we are transmitting with this report the briefing slides that summarized our observations (see encl. I). This report presents the final results of our work analyzing these plans, including recommendations to the services that we discussed with your staffs. We will issue a later report to present our results on the work related to the 30 selected species.

Because the Endangered Species Act only requires the services to include the key elements to the maximum extent practicable, the absence of key elements from a recovery plan does not necessarily mean that the services have failed to meet statutory requirements. Courts have noted that the phrase "to the maximum extent practicable" imposes a clear duty on the services to include the key elements in the recovery plan to the extent that it is feasible or possible. In a number of cases where the services have not included key elements in recovery plans, courts have required them to either include the missing element or to provide an explanation regarding why its incorporation was not practicable. For purposes

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<sup>6</sup>National Marine Fisheries Service, *Interim Endangered and Threatened Species Recovery Planning Guidance*, (October 2004).

<sup>7</sup>In practice, the reports provide status information on all listed species, regardless of whether they have a recovery plan or not.

of this report, we only evaluated whether the key elements were present in the recovery plans and did not make any determinations regarding whether a recovery plan met or failed to meet the requirements of the Endangered Species Act.

We found the following:

Of the 107 plans we reviewed, 73 plans do not provide estimates of when the species are expected to be recovered and 87 plans do not provide estimates of the total cost to recover the species. When such estimates are included, they vary widely. Of the 34 plans that provide a time estimate, 7 plans indicate that the species were expected to have been recovered by 2005;<sup>8</sup> the remaining plans indicate that the species are expected to be recovered within the next 50 years. Twenty of the 107 plans include cost estimates. These plans have an average cost estimate for recovery of \$15.9 million and a median cost estimate of \$1.4 million. The highest estimate is \$125 million to recover the Whooping crane and the lowest is \$58,000 to recover the Decurrent false aster—a flowering plant in Illinois and Missouri. While both FWS and NMFS guidance documents discuss including overall time and cost estimates for achieving recovery in recovery plans, we found that most plans only included time and costs estimates for implementing recovery actions for just a 5- to 7-year period. FWS and NMFS recovery program officials told us that many plans do not include overall time and cost estimates because of the difficulty in developing precise estimates due to many uncertainties, such as the availability and willingness of partners to aid in recovery efforts and the uncertainty of biological responses to recovery actions. Officials also said, however, that it would be possible to develop broad estimates for most species. NMFS officials said that they anticipate that recovery plans will include overall cost estimates for recovery, in accordance with their recently issued guidance.

Almost all of the 107 recovery plans we reviewed have two of the three key elements identified in the act, but few include the third element. First, we found that all of the plans we reviewed include site-specific management actions, although the level of specificity varies greatly. Some plans contain many detailed actions; while others contain fewer, higher level actions. In instances where little is known about the species, the focus of site-specific management actions is often on research and data gathering. Second, almost all of the 107 plans we reviewed include time and cost estimates for implementing site-specific management actions; 4 plans did not contain this information, but stated that doing so was not practicable.<sup>9</sup> In contrast, only 5 of the 107 plans we reviewed included the third element—recovery criteria that address all five delisting factors. Twenty-three plans either state why providing recovery criteria was not practicable or indicate that the species is thought to be extinct or not recoverable. An additional 57 plans include some recovery criteria but do not evidence consideration of all five delisting factors. The remaining 22 plans do not include any recovery criteria for delisting and do not state why providing such criteria was not practicable.

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<sup>8</sup>The FWS reports that estimates contained in recovery plans are premised on the assumption that the partners and resources needed to fully implement the plans are available.

<sup>9</sup>In a number of instances, we found that task duration was described as “continuous.” In *Defenders of Wildlife v. Babbitt*, 130 F. Supp. 2d 121 (D.D.C. 2001), the court made note of a number of tasks in the recovery plan for the Sonoran pronghorn that were described as ongoing but that did not appear to be of indefinite duration. The court remanded the recovery plan to FWS to provide time estimates where practicable.

## **Conclusions**

The success of the Endangered Species Act is difficult to measure because some of the recovery plans we reviewed indicated that species were not likely to be recovered for up to 50 years. Therefore, simply counting the number of extinct and recovered species periodically or over time, without considering the recovery prospects of listed species, provides limited insight into the overall success of the services' recovery programs. An alternative measure of the act's success would also consider estimates of if and when a species is likely to be recovered and the resources needed to prevent its extinction and promote its recovery. This information, however, has not been routinely included in species' recovery plans. FWS's 1990 guidance states that plans must include total time and cost estimates for recovery and NMFS recently issued guidance stating that recovery plans should include total time and cost estimates for recovery. Although developing precise estimates may be difficult given the uncertainties involved, agency officials agreed that broad estimates would be possible for most species. Including such estimates in individual recovery plans and making them easily accessible in a single report or other format, would not only facilitate measuring program success but would also provide policy makers with valuable information for identifying resource needs.

Furthermore, while both NMFS and FWS recognize the importance of establishing recovery criteria, neither direct Service personnel to address all five delisting factors in designing those recovery criteria. As we have reported in the past, there is a long history of extensive litigation on implementation of the Endangered Species Act that has consumed significant program resources. Omissions of recovery criteria evidencing consideration of all five delisting factors in plans may be another opening for similar litigation. A proactive response to this issue could save the services significant resources in avoided future litigation.

## **Recommendations for Executive Action**

To facilitate measuring the success of the Endangered Species Act and provide policy makers with valuable information for identifying resource needs, we recommend that the Secretaries of the Interior and Commerce direct the services to report estimates of the time and cost needed to recover species in a single location that is easily accessible by Congress and the public, (e.g., in the biennial recovery reports to Congress). To accomplish this task, the Secretaries of the Interior and Commerce should ensure that the Fish and Wildlife Service and the National Marine Fisheries Service, respectively, implement their current recovery planning guidance when drafting or revising recovery plans so that plans routinely estimate the overall time and cost to recover species.

To meet the Endangered Species Act's requirement that recovery plans, to the maximum extent practicable, include recovery criteria and, to not expose the services to a higher-than-necessary risk of litigation and their attendant costs, we recommend that the Secretaries of the Interior and Commerce direct the services to include in recovery planning guidance, direction that all new and revised recovery plans have either recovery criteria evidencing consideration of all five delisting factors or a statement regarding why it is not practicable to do so.

## Agency Comments

The Department of the Interior and the Department of Commerce provided written comments on a draft of this report (see enclosures II and III, respectively). A summary of their comments and our responses to them are included below. The departments also provided technical comments, which we have incorporated into the report where appropriate.

The Department of the Interior generally agreed with our findings and recommendations and provided information about how it intends to implement the recommendations, including the title of the responsible official and the target date for implementation.

The Department of Commerce also generally agreed with our findings and recommendations but took issue with our statement that the courts have found that the Endangered Species Act requires the services to address each of the five delisting factors to the maximum extent practicable when designing recovery criteria. Although the Department agreed to adopt our recommendation that all new and revised recovery plans have either recovery criteria evidencing consideration of all five delisting factors or a statement as to why it is not practicable to do so, the Department states that its current practice of addressing only those delisting factors that are relevant to the species is consistent with recent court rulings. However, court rulings, including one referenced in NMFS's recovery planning guidance, contradict this statement. NMFS's guidance includes a quote from a 1995 court case, which reads in part "the Court necessarily concludes that the FWS, in designing objective, measurable criteria, must address each of the five statutory delisting factors."<sup>10</sup>

Additionally, the Department of Commerce agreed with our recommendation that the National Marine Fisheries Service include estimates of the time and cost to recover species in a single, easily accessible location. To accomplish this, we recommended that NMFS include in its recovery planning guidance direction that time estimates for species recovery be included in new and revised recovery plans. NMFS, however, has identified a provision in its guidance that already requires this, although they note that their guidance could be more explicit with regard to time estimates. We made appropriate changes to our report.

Our scope and methodology are discussed in enclosure IV. We performed our work from March 2005 through February 2006 in accordance with generally accepted government auditing standards.

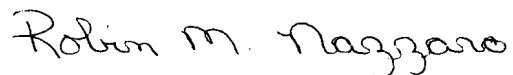
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We are sending copies of this report to the Secretary of the Interior, the Secretary of Commerce, and interested congressional committees. We will also make copies available to others upon request. In addition, this report will be available at no charge on the GAO Web site at <http://www.gao.gov>.

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<sup>10</sup>*Fund for Animals v. Babbitt*, 903 F. Supp. 96 (D.D.C. 1995). See also *Defenders of Wildlife v. Babbitt*, 130 F. Supp.2d 121 (D.D.C. 2001).

If you have any questions about this report or need additional information, please contact me at (202) 512-3841. Contact points for our Office of Congressional Relations and Public Affairs may be found on the last page of this report. Key contributors to this report were Charles T. Egan, Trish McClure, Maria Vargas, Amy Webbink, and Mary Welch.

A handwritten signature in cursive script that reads "Robin M. Nazzaro".

Robin M. Nazzaro  
Director, Natural Resources  
and Environment

Enclosures – 4

*List of congressional requesters:*

The Honorable James M. Inhofe  
Chairman  
The Honorable James M. Jeffords  
Ranking Minority Member  
Committee on Environment and Public Works  
United States Senate

The Honorable Lincoln Chafee  
Chairman  
Subcommittee on Fisheries, Wildlife, and Water  
Committee on Environment and Public Works  
United States Senate

The Honorable Richard W. Pombo  
Chairman  
The Honorable Nick J. Rahall II  
Ranking Minority Member  
Committee on Resources  
House of Representatives

The Honorable Michael D. Crapo  
United States Senate

The Honorable Frank R. Lautenberg  
United States Senate

The Honorable Lisa Murkowski  
United States Senate

The Honorable Harry Reid  
United States Senate

The Honorable Craig Thomas  
United States Senate





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## Preliminary Findings on Analysis of Endangered Species Recovery Plans

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Briefing to Congressional Requesters  
February 8, 2006

- Background
- Objectives
- Scope and Methodology
- Key Elements in Recovery Plans
- Time and Cost Estimates to Recover Species
- Appendix I: Delisting Factors

- 558 recovery plans cover 1,049 species (82 percent of 1,272 listed species). FWS has primary responsibility for most plans/species.
  
- The Endangered Species Act requires each recovery plan to incorporate, to the maximum extent practicable:
  - Site specific management actions,
  - Time and cost estimates for completing site specific management actions, and
  - Recovery criteria.

- **Site-Specific Management Actions**
  - A list of tasks called an implementation schedule, sometimes augmented by a narrative outline, typically covers the first 5 to 7 years of a plan.
  
- **Time and Cost Estimates for Completing Site Specific Management Actions**
  - The duration and cost of tasks are included in the implementation schedule. Cost are usually calculated by fiscal year. Task duration may be described as “continuous” to indicate indefinite duration.
  
- **Recovery Criteria**
  - Measurable criteria for determining when a species is eligible to be removed from the list. Courts have interpreted the ESA as requiring recovery criteria to address the five delisting factors (see appendix I).

For a randomly selected sample of 107 recovery plans, we identify:

- 1) the extent to which plans include key elements identified in the Endangered Species Act, and
- 2) when species are expected to be recovered and the estimated costs to do so.

Randomly selected sample includes:

- 99 recovery plans (covering 192 species) for which either FWS has primary responsibility or for which the Services share responsibility, and
- 8 recovery plans (covering 9 species) for which NMFS has primary responsibility.

Our analysis is based only on information drawn from recovery plans.

We did not attempt to determine whether or not it was “practicable” to include the key elements in plans.

- All 107 plans include site-specific management actions but specificity varies greatly.
- Some plans contain many detailed actions while others contain fewer high level actions.
- In instances where little is known about the species, the focus of site specific management actions is often on research and data gathering.

Of the 107 plans,

- 103 plans had time and cost estimates for carrying out site specific management actions.
- 4 plans stated it was not practicable to include cost estimates.



Of the 107 plans,

- 5 plans contained recovery criteria that addressed all five delisting factors.
- 57 plans had some recovery criteria, but did not evidence consideration of all five delisting factors.
- 23 plans either cover species thought to be extinct or not recoverable or state why providing recovery criteria was not practicable.
- 22 do not contain recovery criteria and do not state why providing recovery criteria was not practicable.

Of the 107 plans,

- 73 plans (covering 163 species) did not provide estimates of when the species are expected to be recovered.
- 34 plans provide time estimates:
  - 7 plans (covering 7 species) indicate that the species were expected to have been recovered by 2005.
  - 17 plans (covering 19 species) indicate that the species are expected to be recovered within the next 10 years.
  - 10 plans (covering 12 species) indicate that the species are expected to be recovered in 10 to 50 years.

Of the 107 plans

- 87 plans (covering 181 species) do not include cost estimates to recover species.
  
- 20 plans (covering 20 species) include cost estimates:
  - \$15.9 million is the average cost estimate.
  - \$1.4 million is the median cost estimate.
  - \$125 million is the highest cost estimate (to recover the Whooping Crane).
  - \$58,000 is the lowest cost estimate (to recover the Decurrent False Aster--a flowering plant in Illinois and Missouri).

In order to be delisted, species must no longer be threatened or endangered because of the following factors (same as listing factors):

- (1) the present or threatened destruction, modification, or curtailment of its habitat or range
- (2) overutilization for commercial, recreational, scientific, or educational purposes
- (3) disease or predation
- (4) the inadequacy of existing regulatory mechanisms
- (5) other natural or manmade factors affecting its continued existence

Comments from the Department of the Interior



United States Department of the Interior

OFFICE OF THE SECRETARY  
Washington, D.C. 20240

MAR 20 2006

Ms. Robin Nazzaro  
Director, Natural Resources  
and Environment  
U.S. Government Accountability Office  
441 G Street, N.W.  
Washington, D.C. 20548

Dear Ms. Nazzaro:

Thank you for providing the Department of the Interior the opportunity to review and comment on the draft U.S. Government Accountability Office report entitled, "Endangered Species: Time and Costs Required to Recover Species Are Largely Unknown," GAO-06-463R, dated February 23, 2006.

Although we agree in general with the findings and the recommendations, given the short time frame for responding to this report, we were not able to verify the information presented concerning the recovery plans. Therefore, we are not providing detailed substantive comments. Instead, the focus of our response is on the recommendations.

The enclosure provides the actions that are planned by the U.S. Fish and Wildlife Service to implement the recommendations. We hope our response will assist you in preparing the final report.

Sincerely,

Acting Assistant Secretary for Fish  
and Wildlife and Parks

Enclosure

U.S. Government Accountability Office Draft Report  
“Endangered Species: Time and Costs Required to Recover Species Are Largely Unknown,”  
GAO-06-463R

Specific Comments

1) On page 2 – “As of February 2006, the Services had approved about 560 recovery plans covering about 1,050 species.” Please clarify that the recovery plans referred to in this sentence are those that are final recovery plans.

2) On page 5, “Of the 34 plans that provide a time estimate, 7 plans indicate that the species were expected to have been recovered by 2005; the remaining plans indicate that the species are expected to be recovered in the next 50 years.” This statement should be clarified, perhaps with a footnote, that (a) the date that the 7 plans were written; and (b) explain that the estimates contained in the recovery plans are premised on the assumption that the partners and resources needed to fully implement the plan are available.

GAO’s Recommendations

1. “To facilitate measuring the success of the Endangered Species Act and provide policy makers with valuable information for identifying resource needs, we recommend that the Secretaries of the Interior and Commerce direct the Services to report estimates of the time and cost to recover species in a single location that is easily accessible by the Congress and the public, for example, in the biennial recovery reports to Congress.”

Response: Concur. The Service plans to add a column in the current table of the Recovery Report to Congress that will include general estimates of the amount of time and cost to recover a species. These will be included for those species that have the information currently included in recovery plans. If this information is not available in the recovery plan, the Service will indicate so in the table and include the new information once the recovery plan has undergone a formal revision.

Title of Responsible Official: Assistant Director – Endangered Species

Target Date: Recovery Report to Congress, 2006

2. “To accomplish that task, we recommend (1) that the Secretary of Commerce direct the National Marine Fisheries Service to include in its recovery planning guidance direction that time estimates for species recovery, however broad, be included in new and revised recovery plans and (2) that the Secretary of the Interior direct the Fish and Wildlife Service to implement

its current recovery planning guidance that states that recovery plans should estimate the overall time and cost to recover species.”

Response: Concur with (2). The Service plans to develop guidance that further clarifies how to implement the current 1990 guidance.

Title of Responsible Official: Assistant Director – Endangered Species

Target Date: September, 2007

3. “To meet the Endangered Species Act’s requirement that recovery plans, to the maximum extent practicable, include recovery criteria, and to not expose the Services to a higher than necessary risk of litigation and their attendant costs, we recommend that the Secretaries of the Interior and Commerce direct the Services to include in recovery planning guidance direction that all new and revised recovery plans have either recovery criteria evidencing consideration of all five delisting factors or a statement as to why it is not practicable to do so.”

Response: Concur with direction to the Department of the Interior. The Service plans to develop guidance or policy illustrating the need to develop recovery criteria in recovery plans that consider all five of the delisting factors.

Title of Responsible Official: Assistant Director – Endangered Species

Target Date: December, 2006



**THE DEPUTY SECRETARY OF COMMERCE**  
Washington, D.C. 20230

March 27, 2006

Ms. Robin M. Nazzaro  
Director, Natural Resources and  
Environment  
Government Accountability Office  
441 G Street, NW  
Washington, D.C. 20548

Dear Ms. Nazzaro:

Thank you for the opportunity to review and comment on the Government Accountability Office's draft report entitled *Endangered Species: Time and Cost Required to Recover Species Are Largely Unknown* (GAO-06-463R). I enclose the Department of Commerce's comments on this draft report.

Sincerely,

A handwritten signature in black ink, appearing to read "David A. Sampson", is written over a horizontal line. The signature is stylized and cursive.

David A. Sampson



**Department of Commerce Comments  
on the Draft GAO Report Entitled  
“Endangered Species: Time and Costs Required to  
Recover Species Are Largely Unknown”  
(GAO-06-463R/March 2006)**

**General Comments**

The Department of Commerce (DOC) appreciates the opportunity to review this report. We generally concur with your findings, although we believe that limiting the report to whether or not recovery plans include the three key elements specified in the Endangered Species Act does not provide adequate information to yield any particular insights into the success or failure of the Act. We look forward to the second phase of this review in which GAO plans to take a closer look at “the factors affecting the length of recovery and the role that recovery plans have played in the species’ progress toward recovery.”

DOC also appreciates GAO’s acknowledgement that the majority of the plans reviewed include recovery criteria, even if these criteria do not address all five listing factors. We would note, however, these criteria were considered adequate at the time they were written. More specifically, prior to the 1995 court case cited by GAO (*see footnote, page 3 of the draft report*), addressing the five listing factors in recovery criteria was not required in National Marine Fisheries Service (NMFS) guidance, nor was it considered necessary. As indicated on page 4 of the draft report, NMFS’s 2004 recovery plan guidance instructs plans should address the factors *currently relevant to the threats facing the species* [emphasis added]. Thus, older recovery plans are unlikely to meet the requirement for threats-based recovery criteria, and even relatively recent recovery plans may not include all 5 listing factors if they were not considered relevant.

**DOC Response to GAO Recommendations**

**Recommendation 1:** “We recommend that the Secretaries of the Interior and Commerce direct the Services to report estimates of the time and cost to recover species in a single location that is easily accessible by the Congress and the public, for example, in the biennial recovery reports to Congress.”

**DOC Response:** DOC agrees with this recommendation and will incorporate such estimates in future biennial reports for all species that have recovery plans.

**Recommendation 2:** “To accomplish [recommendation #1], we recommend...that the Secretary of Commerce direct the National Marine Fisheries Service to include in its recovery planning guidance direction that time estimates for species recovery, however broad, be included in new and revised recovery plans.”

**DOC Response:** DOC agrees with this recommendation and notes NMFS’s 2004 interim recovery planning guidance already includes such direction. Our guidance states the authors of recovery plans should “indicate the anticipated year all recovery criteria could be met if all actions were fully funded at the indicated levels” (*guidance, p. 5.1-4, second column*). The guidance also notes the implementation schedule satisfies the requirement that recovery plans contain “estimates of the time required and the cost to carry out those measures needed to

achieve the plan's goal and to achieve intermediate steps toward that goal" (p. 5.1-26, first paragraph). We do recognize, however, the instruction in the implementation schedule portion of the guidance could be more explicit with regard to time estimates. We have noted changes to this effect should be made in the next draft of the guidance; and, consistent with such guidance, we will ensure future recovery plans include estimates for both time and cost to recovery.

**Recommendation 3:** "To meet the Endangered Species Act's requirement that recovery plans, to the maximum extent practicable, include recovery criteria, and to not expose the Services to a higher than necessary risk of litigation and their attendant costs, we recommend that the Secretaries of the Interior and Commerce direct the Services to include in recovery planning guidance direction that all new and revised recovery plans have either recovery criteria evidencing consideration of all five delisting factors or a statement as to why it is not practicable to do so."

**DOC Response:** DOC agrees to adopt this recommendation, although we do not believe it is necessary. NMFS recovery plans typically consider only those listing factors relevant to the species' listing, plus any additional threats that became relevant after the listing rule. We believe this practice is consistent with recent court rulings and does not constitute a legal vulnerability. However, explicitly including a discussion of each listing factor, even those that are not relevant, is not unduly burdensome. Therefore, to avoid any potential confusion on this matter, DOC/NMFS will adopt this recommendation.

Recovery plans will continue to focus on identifying and alleviating those threats and listing factors that are relevant to the recovery objectives for a particular species. For each listing factor that is not relevant to a particular species, NMFS will simply cite the listing factor, briefly explain why it is not relevant to the species, and note that the listing factor is not considered in detail in the recovery plan. NMFS will not include recovery criteria for those listing factors that are not relevant for a listed species.

### Scope and Methodology

We identified the 107 recovery plans we reviewed by randomly selecting a probability sample of 99 recovery plans from the 580 plans either for which the Fish and Wildlife Service has primary responsibility or for which it shares responsibility with the National Marine Fisheries Service (NMFS).<sup>11</sup> In addition, we included all eight recovery plans for which NMFS has primary responsibility. We then determined the plans' time and cost estimates and the extent to which they contain key elements based on information contained in the plans. For the purposes of this report, we only evaluated whether the key elements were present in the recovery plans and did not make any determinations regarding whether a recovery plan met or failed to meet the requirements of the Endangered Species Act of 1973.

(360574)

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<sup>11</sup>We selected our sample of recovery plans in June 2005 and included in our universe the final and draft plans available at that time.

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