

Third Party Evaluation of the Recovery Credit System Proof of Concept

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Executive Summary

The Recovery Credit System is a framework for federal agencies to implement recovery measures for threatened and endangered species under which federal agencies may offset adverse effects of agency actions taken elsewhere for that species. The proof of concept was implemented at Fort Hood Military Reservation. Developed by a working group, it allowed the Department of Defense to receive credit for recovery measures implemented by private landowners to offset adverse effects from training activities pertaining to the conservation of the golden-cheeked warbler (*Dendroica chrysoparia*). Model elements tested in the proof of concept were as follows:

- Federal agencies may offset adverse effects of agency activities to a listed species by beneficial effects of actions taken elsewhere for that species. The combined effects of the crediting (beneficial) and debiting (adverse) actions must provide a net benefit to recovery of the species. The biological opinion for debiting (USFWS 3 March 2009) defined the net benefit to recovery for the proof of concept.
- Credits are acquired through conservation and management actions on private lands. In the proof of concept, credits were determined by applying weighting criteria to conservation units (up to 20 acres = one unit) for habitat; a wildlife management plan identified required management actions.
- In the proof of concept, private landowners enrolled their properties through a reverse auction; competitive elements included contract term, cost per recovery credit year (credits determined multiplied by contract term), and landowner cost share.
- Permanent loss of habitat due to federal agency actions will be offset by permanent credits while temporary habitat loss may be offset via term credits. The proof of concept tested term credits (up to 25 years).
- Compliance and effectiveness monitoring, as well as fund and credit accounting, are required through the life of the credit contracts.

The purpose of this evaluation is to provide an objective and thorough evaluation of the three-year proof of concept for both the process and the intended impact and to assess the utility of the Recovery Credit System. To

ensure independence, the evaluation team chosen had no prior relationship with any stakeholder and recruited peer reviewers who were free of conflicts of interest. (See Appendix A for more details).

The evaluation team collected data from six sources to answer the seven evaluation questions: a peer review panel of three independent scientists, all successful and unsuccessful landowner bids, program documents, habitat assessments on eight contracted sites, seventeen interviews with participating landowners, and twenty-four interviews with program operators, military personnel, and other stakeholders. Incorporating six sources ensured that at least three different sources plus relevant literature informed each evaluation question and the findings. The analytic strategy included descriptive statistics for quantitative variables (such as bid documents or site reviews) and a general inductive approach (Thomas 2006) for qualitative data using the guidelines in Miles and Huberman (1995). (See Appendix A for a complete description of the methodology and analytic strategy). The evaluation question, conclusion, and lessons learned are listed below.

Question 1: What is the Recovery Credit System and how does it differ from other models?

While the evaluation did not provide an exhaustive comparison to all other conservation strategies, the following strategies were compared on four variables: conservation banking, Environmental Quality Incentives Program, Safe Harbor, Section 7 consultation, and Wildlife Habitat Incentives Program. Interviewees and the peer-review panelists agreed that the model provided important contributions to both conservation and to the military: working toward species recovery, extending conservation beyond the boundaries of the installation by engaging private landowners, formalizing a market-based tool for trading credits, and providing an additional method for removing restrictions on training. With enrolling distributed private lands, the model also allows addressing recovery holistically.

Question 2: Was the Recovery Credit System implemented as planned?

Yes, the system was implemented as planned and demonstrated in a real-world environment that the model was viable and feasible. Lessons learned included developing a system for credit and debit determination, identifying and protecting contiguous and supporting habitat, and continuous reporting.

Question 3: Did the participants perceive that the process was efficient?

Yes, landowners and other interviewees described the process as efficient. Landowners expressed positive impressions of the program, comparing the program favorably against prior experiences with similar government programs. Process lessons learned included the value of committee structure, the fast pace of the planning, and the benefit of the reverse auction.

Question 4: Did the Recovery Credit System promote effective federal/nonfederal partnerships for species recovery?

Yes, the program promoted landowner partnerships; other federal/nonfederal partnerships had both successes and challenges. Lessons learned included establishing trust with landowners, raising awareness among landowners, collaboration among all stakeholders, and ensuring communication.

Question 5: Did the operation of the Recovery Credit System meet its goals for endangered species conservation?

Yes, the program met its goals for habitat conservation. More information is needed, however, to assess the biological responses of the golden-cheeked warbler. The model could be enhanced, however, to further address species recovery. Lessons learned included the opportunity for material enhancement of habitat.

Question 6: Did the Recovery Credit System increase the flexibility of federal agencies to accomplish their mission while meeting their requirement under the Endangered Species Act?

Yes, the model provided additional flexibility, but there is greater potential. One lesson learned was matching contract lengths to impacts length and recovery periods.

Question 7: To what degree does the scientific information generated by the Recovery Credit System monitoring and research program provide reliable information likely to lead to more effective conservation and recovery strategies for the species in this and other models?

To date, 14 papers and 20 conference presentations have been generated. As 11 papers are in press or in preparation, however, it is too early to determine whether the information will lead to more effective conservation and recovery strategies

Recommendations were generated at three levels to meet the information needs for multiple stakeholders: the Recovery Credit System that may be applied in other locations or for other species, the Recovery Credit System as applied to the golden-cheeked warbler, and for the proof of concept applied at Fort Hood Military Reservation.

Recovery Credit System model:

- Establish metrics for recovery and action agency results at the onset and establish baselines, if possible.
- Place greater emphasis on materially enhancing habitat and/or addressing additional recovery measures; protection of habitat is important but by itself may not be adequate to meet the net benefit standard.
- Think actively about the length of impacts and recovery of habitat and match contract enrollments accordingly.

Recovery Credit System for the golden-cheeked warbler:

- Allow landowners to receive credit for supporting habitat that will be managed to produce higher quality habitat. Considering expanding protected habitat to include a buffer.
- Allow for term contracts beyond 25 years for the golden-cheeked warbler; this will add to the flexibility of federal agencies.
- Establish metrics for conservation and for participating Federal Action Agency activities during the planning process, and develop a clearer link between the wildlife management plan and conservation metrics. Report throughout the project on both process measures and these metrics.
- Develop more refined criteria in the future, particularly with regard to supporting and restorable habitats.
- Incentivize warbler-benefitting practices through scoring during the enrollment competition. The program currently supports management practices that are intended to benefit warblers *and* separate practices that are implemented exclusively to benefit ranching operations.

Recovery Credit System at Fort Hood Military Reservation:

- Refine management actions to enhance deciduous recruitment and manage supporting habitat in ways that improve or maintain its suitability to support breeding, feeding, and other activities of the golden-cheeked warbler.
- With a group of stakeholders, implement a formal communication plan to share successes and challenges. The plan should identify stakeholders and their information needs.

- If the proof of concept is continued at Fort Hood Military Reservation, then consider the recommendations under the Recovery Credit System, above.

The remainder of this report first provides an introduction to the evaluation, explores each of the evaluation questions, and concludes with a summary answer to each question, lessons learned, and recommendations. The appendix includes a thorough description of the methodology, peer-review panel biographies, a list of interviewees, and the complete peer-review panel report.

References

- Miles, M., & Huberman, A. (1995). *Qualitative data analysis: An expanded sourcebook* (2nd ed.). Thousand Oaks, California: Sage Publications, Inc.
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- U.S. Fish and Wildlife Service. (3 March 2009). *Programmatic biological opinion on the debiting phase of the U.S. Department of Army's proposed military training activities to be implemented under Fort Hood's Recovery Credit System*. Arlington, TX: U.S. Fish and Wildlife Service. Retrieved 22 June 2009 from http://www.fws.gov/southwest/es/Documents/R2ES/BO_Ft_Hood_Recovery_Credit_System_Golden-cheeked_Warbler.pdf