

**Mexican Wolf Blue Range Reintroduction Project 5-Year Review:  
AMOC Responses to Public Comment Component**

by

Adaptive Management Oversight Committee

Arizona Game and Fish Department  
New Mexico Department of Game and Fish  
U.S.D.A. – APHIS, Wildlife Services  
U.S.D.A. Forest Service  
U.S. Fish and Wildlife Service  
White Mountain Apache Tribe

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# Mexican Wolf Blue Range Reintroduction Project

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Note: see the Administrative Component for a list of abbreviations, acronyms, and terms.

### RESPONSES TO 5-YEAR REVIEW PUBLIC COMMENT IN JANUARY-JULY 2005

This document, part of the 5-Year Review, includes AMOC responses to: (1) written public comment on the 5-Year Review received January through July 2005; (b) oral public comment on the 5-Year Review at eight AMWG public meetings in June 2005; and (3) AMOC responses to public comment on a proposed Moratorium, and several Project SOPs addressing issues ranging from control of Mexican wolves to Project outreach activities. The responses also reflect AMOC consideration of oral public comment at 10-12 other AMWG public meetings in AZ and NM during the 5-Year Review period.

The Reintroduction Project operates under authority of a nonessential experimental population Final Rule (USFWS 1998), pursuant to Section 10(j) of the ESA<sup>1</sup> (see the Administrative Component for a list of abbreviations, acronyms, and terms used throughout the 5-Year Review). The Final Rule was approved by the Secretary of the Interior in 1998, after a 1996 Final Environmental Impact Statement (FEIS; USFWS 1996) was completed pursuant to the National Environmental Policy Act (NEPA), with a Record of Decision (ROD) in 1997 (USFWS 1997).

The Final Rule requires 3-Year and 5-Year Reviews of the Reintroduction Project to determine if changes are needed in any aspect of the reintroduction effort. The 3-Year Review was conducted in 2001; see Kelly et al. (2001) and Paquet et al. (2001) for the primary information on that review. The 5-Year Review was conducted in 2005, and the results are detailed in this document and several others referenced herein.

Reference is frequently made in the entries below to requested or possible actions and AMOC recommendations, including changes in the Final Rule. Please note that this is not a decision document, nor is any other part of the 5-Year Review a decision document, except in terms of clarifying the primary areas in which AMOC will be considering changes over the coming years. After initial discussion and vetting within AMOC and through AMWG, any changes in the Final Rule or in any other law, rule, regulation, or policy would need to be proposed and approved through the appropriate State, Tribal, and/or Federal administrative and/or regulatory processes. Thus, the need for compliance with APA, ESA, NEPA, and other State, Tribal, and Federal laws is implicit, and not overtly stated and re-stated with each response below. However, given that

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<sup>1</sup> See the Administrative Component for a list of abbreviations, acronyms, and terms used throughout the 5-Year Review.

some entities are prone to imply such compliance does not occur, we do occasionally reference such compliance requirements as a reminder that we are well aware of them. Indeed, every action AMOC (including the IFT) takes in any aspect of the Reintroduction Project is in full compliance with the agencies' interpretations of applicable laws, rules, regulations, and policies.

Public comment below is divided into various sections. Each section represents comment that was received and considered at various stages of the 5-Year Review. Thus, the AMOC responses to a given issue may vary slightly from one section to another. Such changes reflect evolution in AMOC's perspective on a given issue as the 5-Year Review proceeded. However, the first section provides the most detailed AMCO responses and reflects final AMOC consideration of all relevant information. Many comments in that section are redundant to comments in subsequent sections. No effort was made to eliminate redundant comment because of the complexities of numbering and cross-referencing entries within each section.

### Written Public Comment and AMOC Responses

Below is a summary of written public comment that AMOC received on the 5-Year Review from January through July 2005. Each **Comment** is accompanied by an AMOC **Response**. The notation C/R is used to flag other Comment/Response entries that seem relevant to the topic.

#### **A. General**

1. **Comment:** The word "persecute" with respect to treatment of wolves is not appropriate. **Response:** The document will be reworded, so choice of modifiers does not distract from more substantive issues.
2. **Comment:** It has been made clear that dissenting viewpoints in the current status and management of the program were not welcome and would not be applied to the 5-Year Review. People were told the termination option would not be available for comment. In all program reviews there are three options: continue, continue with modifications, and termination. It is premature and self serving to ignore a legal and obligatory option, simply because the agency wishes to succeed at reintroduction and eventual recovery. **Response:** USFWS stated in a cover letter released with the draft 5-Year Review that the Mexican Wolf Blue Range Reintroduction Project is a matter of law, the courts have repeatedly affirmed the legality of the Project, and the focus of the 5-Year Review would be on objectively identifying specifics about what has worked and what has not worked thus far in the Reintroduction Project. The cover letter also stated that comments providing position statements (e.g. like/dislike; agree/disagree with reintroduction) would not be considered relevant to the Review. These statements did not mean that dissenting viewpoints and the termination option would not be considered. Rather, they were intended to mean that opinions (organizational or personal preferences) on whether or not wolves should be in the wild are moot, because wolves are already on the landscape pursuant to the ESA and relevant court decisions. The purpose of the public comment period was to solicit meaningful input regarding how Mexican wolves are managed on the ground and how the Project could be improved. Therefore, what was sought through

public comment was substantive input (reflecting on-the-ground experiences, facts, and perceived or real flaws in current management, as opposed to simply opinions) explaining why the Project should continue, how it might be modified, or why it should be terminated.

3. **Comment:** In the interest of fairness to all parties, the USFWS should make every effort not only to avoid taking politically motivated solutions to problems but also should avoid the appearance of favoritism and insist that all meetings with “members of the public” be announced in advance and open to the public without restriction. (This comment was made in reference to 2 Congressman Pearce meetings). **Response:** The referenced meetings were not AMOC or USFWS meetings. Neither AMOC nor USFWS requested the meetings, nor did they have any role in planning or conducting them. The meetings were convened and attended by staff of Congressman Pearce (NM) and local (NM) livestock and landowner interests. They were held in Glenwood and Socorro NM, on February 12, 2005. The Congressman asked that USFWS officials attend to listen and respond to comments on the Mexican Wolf Recovery Program and the BRWRA Reintroduction Project. USFWS asked the Congressman’s staff if AMOC could be extended an invitation, which was granted a few days before the meetings. AMOC, as a body, declined the invitation, in part because the meetings were not open to the public. However, when a standing member of Congress asks a Federal agency such as USFWS to attend a meeting, that agency generally does not decline the invitation. Regardless, neither AMOC nor its individual agency members can dictate with whom a Congressman and/or his staff meet. Any group or individual can request a meeting with a Congressman by contacting him or his staff directly.
4. **Comment:** The ground rules for public participation in the review process have been circumvented with the 2 extra meetings in February at the request of reintroduction opponents who could not seem to convey their complaints adequately at the 4 scheduled open houses. **Response:** See C/R 3.
5. **Comment:** The program sides with environmental extremists. Key employees’ attitudes may be jaded for love of the wolf over other wildlife. It is common knowledge that one or more key players on the USFWS wolf Recovery Team are on record of wanting to stop multiple-use and in particular, grazing on Federally managed lands. That makes it hard for your team to be objective and obvious that the program has always been about more than just reintroducing wolves. **Response:** Agency employees in the Reintroduction Project do not have anti-grazing or anti-multiple-use agendas. As government employees and public servants, our job is to implement the Project consistent with all applicable Federal, State, and Tribal laws, and help recover the Mexican wolf, not make judgments regarding the appropriateness of grazing or other multiple-use activities on public lands. Grazing of public lands is a lawful activity, subject to regulations that AMOC does not establish or administer. It is, however, just one of the multiple-uses of public lands that we must consider in adaptively managing the Reintroduction Project.

6. **Comment:** Will there be a highly influential scientific assessment of all science and data obtained on the Mexican wolf Reintroduction Project? All information must be complete and peer reviewed in accordance with the Office of Management and Budget, Final Information Quality Bulletin for Peer Review published in December 2004. If the information is peer reviewed, will it be transparent and the written charge to the peer reviewers be made available to the public? Will the peer reviewer's names and expertise be made available to the public? Will the peer reviewer's reports and the agency's response to the peer reviewer's reports be made available to the public? **Response:** With regard to scientific assessment, the 5-Year Review's Administrative and Technical components were provided to the SWDPS Recovery Team's Technical Sub-Group in October 2004 for informal "peer" review. AMOC did that not because of a legal or procedural requirement, but because the Sub-Group had expertise directly relevant to the 5-Year Review. The Technical Sub-Group was asked to provide comment as individuals. Some did, and the documents were revised extensively to address the comment. AMOC also provided the public comment drafts of both components to the Recovery Team's Stakeholder Sub-Group as well as the Technical Sub-Group in December 2004. Again, each member was asked to provide comment individually, during the ensuing public comment period. Some did, and some provided comment through organizations or agencies with which they were affiliated. All comment received is integrated into this document, and will be reflected in appropriate final revisions of the draft 5-Year review. The Recovery Team was not asked to review the Socioeconomic Component of the 5-Year Review because the Team had become inactive (see C/R 64) when that document became available for public comment in April 2005. Regarding the Office of Management and Budget (OMB) Final Information Quality Bulletin for Peer Review (OMB 2005): that Bulletin does not apply to information disseminated on or before June 16, 2005. The Bulletin also does not apply to information for which an agency has already provided a draft report and an associated charge to peer reviewers. OMB's intent, as expressed in the Bulletin, is for agencies to have appropriate and scientifically rigorous peer review on all significant regulatory information the agencies intend to disseminate. The Administrative and Technical components of the 5-Year Review were disseminated to the public in December 2004 and January 2005, and the Socioeconomic Component was disseminated in April 2005. Since both releases preceded June 16, 2005, and the 5-Year Review is not regulatory in nature; formal peer review per the OMB Bulletin is not required. The OMB Bulletin is also supplemental guidance to existing agency peer review requirements. USFWS policy (see USFWS 1994b and 1994c) is to solicit independent peer review on listing recommendations and draft recovery plans to ensure the best biological and commercial information is used in the decision-making process, as well as to ensure that reviews by recognized experts are incorporated into the review process of rulemakings and recovery plans developed in accordance with requirements of the ESA. Thus, as with the OMB Bulletin, the USFWS policy on peer review does not apply to the 5-Year Review.
7. **Comment:** Will USFWS address any peer reviewer's potential conflicts of interest (including those stemming from ties to other stakeholders or others involved in the

- issue)? **Response:** All comments were taken at face value, without consideration for possible conflict of interest. See C/R 6.
8. **Comment:** This report needs to be subjected to a peer review by a disinterested entity. **Response:** See C/R 6 and 7.
  9. **Comment:** Will the selection process for peer reviewers be done by using the policies employed by the National Academy of Science? **Response:** See C/R 6 and 7.
  10. **Comment:** If the peer reviewers are government employees will they be subject to Federal ethics requirements? **Response:** See C/R 6 and 7.
  11. **Comment:** Page 34, Paragraph 1 (Technical): The statement “Some forms of removal (those caused by livestock depredations) will likely remain near current levels...as they are a necessary part of any successful wolf Recovery Program” is not based on science or fact. All wolf Recovery Programs to date in the USA have included removing wolves for livestock depredations so there has been no attempt to institute a wolf Recovery Program that does not do so. Therefore this statement is not based on empirical comparison but rather on a preconceived notion. The notion that removals for depredations are an unalterable part of the management landscape but will not impact success does not have a relation to the experience of this program. The opinion quoted by agency personnel that the numbers of wolves removed due to depredations will not substantially change reflects a prejudice in favor of the current failing management paradigm, and not a considered evaluation of the facts on the ground, the Paquet analysis, nor the experience of other wolf programs. This statement should be deleted and a more reasoned evaluation of the prospects of lowering this removal rate should be substituted. Furthermore, the entire section devoted to Reproduction and Population Growth should include a PVA that incorporates all the factors effecting population and its prospects including its genetic composition. **Response:** The referenced comments are from the discussion section of the Technical Component of the 5-Year Review, and it appears the commenter overlooked use of the qualifier “likely.” Wolves that present a chronic threat to livestock are removed to address negative impacts and to promote tolerance for other wolves on the landscape. The Blue Range Reintroduction Project and wolf recovery efforts elsewhere in the USA remove wolves with chronic livestock depredations to reduce conflicts and to manage wolves within the framework of practices that were in place prior to reintroduction or expansion of wolves. Management must also be consistent with the legal designation of wolves in the particular area. Removal of problem wolves in the BRWRA is not evidence of a failing management paradigm, but a reasoned response to wolf/human conflicts that arise. SOP 13.0: Control of Mexican Wolves is a detailed management approach aimed at lowering removal rate from the wild through application of a stepwise series of responses to nuisance and problem wolf issues. Finally, development and inclusion of a PVA is not a purpose of, and is beyond the scope of, the 5-Year Review. However, after considering all public and cooperator comment during the 5-Year Review, and its own evaluations, AMOC has made recommendations regarding a PVA that reflects our concerns about

data sufficiency for such an analysis (see the AMOC Recommendations Component; see also Fritts and Carbyn 1995, White 2000, Boitani 2003).

12. **Comment:** The paucity and quality of data have created an inadequate, flawed, biased review. This and the Paquet report should have been conducted by reviewers completely divorced from the program and wolf advocacy and with thorough knowledge and sensitivity to those impacted by their findings. **Response:** AMOC believes this Comment inaccurately portrays the integrity and quality of the 5-Year Review process. We readily acknowledge that data are lacking in some areas or are insufficient for thorough statistical analysis, although this is less a problem now than it was during the 3-Year Review (including the Paquet report). Some data insufficiencies are explainable, given the relatively brief tenure of the Reintroduction Project. Other data problems reflect reluctance by affected publics to report depredation incidents, human-wolf interactions, and documented economic impacts (positive or negative). Regardless, the 5-Year Review is being carried out as a component of an overall adaptive management program, and the persons assigned to carry it out have a thorough knowledge of the relevant issues and an objective viewpoint as to the need for and nature of constructive change.
13. **Comment:** I would like to register a complaint that comments on the review be restricted to and limited by the review itself as that avoids expressing the essence of the reality. **Response:** The purpose of the 5-Year Review was to evaluate the effectiveness of the Mexican wolf Reintroduction Project in the BRWRA. As such, public comments were solicited specific to that topic. Regardless of the 5-Year Review, members of the public may write or call agency cooperators at any time to make inquiries, express opinions, and voice concerns or issues about any aspect of the Reintroduction Project or wolf recovery efforts. See C/R 2.
14. **Comment:** NMDA suggests a total overhaul if the program is to continue, beginning with a request to Congress for proper funding levels. This funding should include fencing of a sanctuary large enough to support the contemplated recovery population. Private entities should also be contacted for additional monies. **Response:** Larger, dedicated budgets and more personnel would not, by themselves, lead to earlier recovery of the Mexican wolf. Greater support in those areas would help, but much more than that is needed. The Reintroduction Project reflects a legal mandate under the ESA and a judicial mandate from a pivotal court settlement and subsequent court decisions. A total Project overhaul would require changes to relevant laws, regulations, or a court decision related to the Final Rule (USFWS 1998) authorizing the reintroduction. In addition, recovery of a listed species under the ESA generally connotes healthy populations of wild, naturally interacting and dispersing, free-ranging animals that are no longer in danger of elimination throughout all or a significant portion of their range. Consequently, artificial containment of Mexican wolves to a fenced “sanctuary” would not meet the legal standard of recovery of the species under the ESA. For example, wolves maintained at pre-release facilities, such as Sevilleta and Ladder Ranch, do not count toward recovery while in captivity.

15. **Comment:** Failure to implement the recommendations of the Paquet report has cost the project dearly in work hours, funds, morale and has contributed to the downward population trend in the wild. It would be best to recover the Mexican wolf so that it could then be managed as a recovered population with the concomitant benefits to the taxpayer, ranchers, outfitter, business people, tourists, politicians and the American public. **Response:** Wolf recovery and subsequent management at State or Tribal levels would likely provide benefits to many interested and affected parties. However, the Paquet et al. 2001 report, which addressed technical issues, was only one component of the 3-Year Review. The August 2001 Stakeholders Workshop (Kelly et al. 2001) also generated many recommendations. Under a principle of “equality of implementation,” perhaps both sets of recommendations would have been implemented. This would have been impractical, since some recommendations in the Stakeholders report conflicted with some in the Paquet report or others in the Stakeholders report. A fundamental failure of the 3-Review was absence of an overall set of recommendations from the various components that the cooperators agreed to implement. However, failure to implement recommendations from the Technical Component (i.e. Paquet report) of the 3-Year Review has not resulted in a failure to attain “recovered” status at this point, nor has it caused a downward population trend in the wild. Despite fluctuations in population parameters due to mortality, weather, disease, reproduction, removals, and many other causes, the number of breeding pairs in the wild and total wolf numbers in the wild are increasing. In 1998, 1999, 2000, 2001, 2002, 2003, and 2004 there were 0, 0, 1, 3, 5, 3, and 6 breeding pairs (5-Year Review Technical Component). The IFT projects that the number of breeding pairs on December 31, 2005 will be 5-8. Similar trends have been observed for the minimum population count, with counts of 4, 15, 22, 26, 42, 55, and 44-48 for 1998, 1999, 2000, 2001, 2002, 2003, and 2004, respectively (5-Year Review Technical Component). The mid-year informal (tentative) count for 2005 indicates a minimum of 51-63 wolves. However, after considering all public and cooperator comment during the 5-Year Review, and its own evaluations, AMOC has made recommendations regarding possible changes in the Final Rule or creation of a new Final Rule, and other essential actions that would enhance efforts to attain Reintroduction Project objectives (see the AMOC Recommendations Component).
16. **Comment:** Page 1, first paragraph, Technical: Wolves still inhabited Mexico through the 1980s, not because removal efforts there were not as effective, but because organized efforts were begun later in 1950 and because these efforts were sporadic and not as consistent as they had been in the US. **Response:** Other possible explanations for longer persistence in Mexico include more wolves to begin with, less effective eradication techniques and fewer dedicated control agents, and/or more remote areas with less access. Any explanation at this juncture would be conjectural, however, so it might be best to simply state (as we will) that “wolf removal efforts in Mexico in the early to mid-1900s were not completely successful, in that some wolves survived.”
17. **Comment:** The Catron County Commission is concerned about the introduction of Mexican wolves to the county and formally requests that the NMFG Commission institute an assessment of the existing and potential impacts that may occur to the wildlife

of NM. We also request they determine the wolf impacts on the other specifics of NM wildlife to include effects on elk population, on the declining mule deer population, on threatened and endangered species of the State, and the nation. Furthermore we request that the Game and Fish Commission utilize the services of NM State University's Wildlife Department, who has expertise regarding predator/prey ecology and wildlife management. **Response:** This request is outside the scope of the 5-Year Review. However, the following discussion addresses, in part, issues raised by the Commenter. Using the best available information: The FEIS estimates 4800-10,000 fewer deer and 1200-1900 fewer elk over the entire BRWRA at a point in time five years after the initial wolf population goal of 100 wolves is achieved. Data gathered on free-ranging wolves since their release in 1998 suggest a heavier reliance on elk, and less use of deer, than was estimated in the FEIS. NMDGF has more recently modeled elk populations and wolf mortality within the NM portion of the BRWRA. Their results indicated that human-caused mortality (i.e. hunting) of elk is the primary mortality factor regulating elk populations, and that elk hunting designed to meet (human) objectives for elk populations in this unit and wolf predation can be sustained with the current BRWRA wolf reintroduction goal. To date, no detectable changes to big game populations as a result of wolf reintroduction have occurred in AZ or NM. No changes in the number of permits issued for big game hunts have been made as a result of wolf presence, either. The Socioeconomic Component of the 5-Year Review indicates the level of hunting activity across the BRWRA has not declined since the Reintroduction Project began. Elk permits and hunter days have both increased during the Reintroduction Project (1998-2004). Although there is no data at this time specific to the BRWRA, primarily due to the small population size and lack of detailed studies prior to reintroduction of Mexican wolves in the BRWRA, the effects of reintroducing a "top carnivore" on other associated species can be postulated from research conducted in Yellowstone. That data shows a positive response from willows, aspen, and cottonwoods trees in areas frequented by wolves (Ripple and Beschta 2003, 2004), suggesting wolf reintroduction has likely had a positive influence on watershed conditions by redistributing ungulate (primarily elk) grazing. Wolves in Yellowstone have contributed to a more stable and healthy elk population (Smith et al. 2003). Also, wolves have reduced coyote populations and wolf kills provide a meat source for bears, eagles, and other scavengers (Smith et al. 2003). The Yellowstone studies have thus shown the wolf can play an important role in contributing toward balanced ecosystem function (see also Terborgh et al. 1999 regarding ecosystem roles of "top carnivores"). There is no evidence that Mexican wolves pose threats to, or have adverse impacts on, any other species of wildlife (including other imperiled, at-risk, threatened, or endangered species) in terms of diminished prey population status.

18. **Comment:** Within this program, the public funds allocated have been exceeded. Positive results have not been seen and the subsidies are not working. Good management of this program is highly overrated for conservation purposes. **Response:** As the Project has moved toward a true partnership among the Lead Agencies participating in AMOC, the shortfall in annual Congressional appropriations to USFWS for this project has been partially offset by increased contributions from other partners. The other agencies see this as a reflection of their legal obligations under the ESA and essential to meeting

obligations created when wolf reintroduction was approved. As the partnership funding has increased over the past two years, under auspices of AMOC, we have been able to increase on-the-ground wolf management efforts through an expanded IFT. Much of this growth has occurred over the past 12-18 months, thus it is not reflected in the draft 5-Year Review documents. Nevertheless, the partner agencies believe the investment is worthwhile, and wolf management is improving as a result.

19. **Comment:** WS used to provide hazing, pre-inspection of localized wolves, and outreach services which are no longer available the last two years because of cost-cutting. No effort has been made to replace this loss as the population increases. Because of no collaring wolves the last two years, management for WS is impossible and ranchers to adjust to grazing areas. **Response:** WS responds to potential Mexican wolf depredations reported by livestock owners, the public and the IFT (of which WS staff are members). Since FY 2003, appropriated funds have been insufficient for WS to contribute to all wolf work needed in the BRWRA. AMOC needs four FTEs from WS for wolf management in AZ and NM, but WS funding is sufficient for only 1.25 FTEs. Consequently, WS has been forced to redirect its IFT resources to focus primarily on timely depredation response. More wolves have been captured in 2005 than in any previous year on the Project. However, even more wolves must be collared to improve all aspects of wolf management. Finally, AMOC is constantly seeking additional sources of funding, personnel, and equipment to further assist cooperative efforts in managing wolves throughout the BRWRA.
20. **Comment:** Catron County NM requests the USFWS schedule another public meeting regarding the introduction of the wolf. **Response:** AMOC is the appropriate entity to convene public meetings regarding the Blue Range Reintroduction Project. AMOC is comprised of six lead agencies (AGFD, NMDGF, WS, USFS, USFWS, and WMAT) that share primary regulatory jurisdiction and/or management authority over the Mexican wolf in AZ and NM. These agencies have delegated oversight and direction of the Blue Range Reintroduction Project to AMOC. Other State agencies and county governments that have an interest in Mexican wolf management can also participate, as formal or informal Cooperators. NMDA and Greenlee County AZ are examples of formal Cooperators. AMOC holds quarterly public AMWG meetings in the BRWRA to provide ample opportunity for stakeholder participation in the Reintroduction Project. Since this Comment was submitted (July 2005), AMOC has held two additional public meetings regarding the Reintroduction Project, one each in Glenwood NM and Morenci AZ (both in October 2005), and two more will be held in January 2006, in Safford AZ and Silver City NM. Other public meetings will held as necessary to further opportunities for public participation. Requests for public meetings should be directed to the AMOC Chair, Mr. Terry B. Johnson, AGFD.
21. **Comment:** The open house sessions held by the USFWS put on a one-sided show – all pro-wolf and shows none of the damages wolves cause. **Response:** See C/R 20. USFWS is just one of six AMOC Lead Agencies. AMOC conducted several open houses and other public meetings in 2004 and 2005, as components of the 5-Year Review. All six

Lead Agencies participated in structuring and carrying out the meetings. The meetings reflected previous public comment about format, including conflicting desires for more structured and for less structured meetings. In each meeting, AMOC's discussion of the issues inherent to wolf reintroduction (e.g. livestock depredation, nuisance wolf problems) was forthright and balanced – all aspects were covered, wolf damage was not downplayed. However, perhaps the “one-sided show” Comment is in reference to possible under-representation of depredation scenes in graphics (e.g. posters) posted at these meetings. Thus, AMOC is developing material to provide better graphic image balance in the future, and would appreciate contributions of appropriate images from any source.

22. **Comment:** Project personnel are not honest or truthful about the wolves and their history. **Response:** Inaccurate information is never intentionally provided by Reintroduction Project personnel or by any agency participant in the Project. Anyone who has evidence to the contrary should submit it to AMOC, or directly to the appropriate agency, with sufficient detail to enable appropriate investigation. All information provided about individual wolves and their history is factual, and is based on the best available information. The Project maintains various databases that track each individual wolf in the wild. Additionally, a hard-copy file maintained for each wolf contains information on the wolf's history. However, wolf behavior and new circumstances inevitably result in changes in knowledge about individual wolves and packs of wolves. AMOC is well aware that when agency employees provide new information that conflicts with previous information, accusations of dishonesty and lying may result. This does not stop us from presenting new facts or theories, when appropriate to do so.
23. **Comment:** The relationship between the IFT and locals needs to be improved. Local input on prey base should be considered along with greater input on wolf saturation level should be used unless greater funds become available to supply greater staff to a large rugged area. **Response:** There is always room for improvement in this area, and the IFT is working with local landowners on a daily basis to make the Project more efficient and effective for all stakeholders. The IFT invites local residents and other members of the public to participate in wolf management activities as available and as appropriate to the specific activity. AMOC and the IFT will consider any specific suggestions in regard to improving relationships with local residents and/or other interested parties and stakeholders. With regard to prey base issues, the IFT uses the best available information from the State and Tribal wildlife agencies, but insights from local residents can be very helpful (e.g. to help identify the best suitable areas for release or translocation of wolves).
24. **Comment:** The Administrative Introduction section fails to mention the turnover in the Mexican wolf project leader position and the long lapses of time during which the position remained vacant. **Response:** The USFWS Mexican Wolf Recovery Coordinator position was vacant from October 1999 through April 2000, and again from July 2003 through November 2004. During both periods, USFWS continued to fulfill Recovery

Coordinator responsibilities through use of existing Mexican wolf Recovery Program staff or by appointing an Acting Mexican Wolf Recovery Coordinator.

25. **Comment:** Why has the Defenders fund which offers assistance to ranchers for additional riders, ranch hands, fences, etc. been so under-utilized? **Response:** Defenders has not provided any data to AMOC that would enable us to determine if its incentives fund has been under- or over-used. However, use of this fund is not within AMOC's scope of authority. The fund is private, and its use is a function of cooperation between individual ranchers and Defenders. We can only provide information to the public that the fund is available, and contact information for Defenders.
26. **Comment:** Page 1, first paragraph (Technical): The Predatory Animal and Rodent Control Service was not actually a Service and did not exist in the period 1915 – 1925. The agency that should be referenced is the US Biological Survey which in 1940 became the USFWS. **Response:** The Federal government's direct predator control work began in 1914, within the Bureau of Biological Survey (see Robinson 2005 for relevant background). In 1924, the Bureau became the Division of Predatory Animal and Rodent Control (PARC). At least two more name changes occurred before 1939, when the Division of Predator and Rodent Control was transferred from USDA to the Department of the Interior, Fish and Wildlife Service. More name changes occurred, before the predator control program was returned to USDA, where it eventually became known as USDA-APHIS Wildlife Services. The 5-Year Review's Technical Component will be modified to reflect this history.
27. **Comment:** Supporters of the Mexican wolf program far outnumber its opponents. **Response:** The few public surveys and opinion polls conducted on this subject affirm that a majority of respondents (including those residing within the BRWRA) support Mexican wolf recovery (e.g. Biggs 1988, Duda et al. 1998, Johnson 1990, Manfredo et al. 1994).
28. **Comment:** Obviously the USFWS is spread so thin that they cannot cover the entire BRWRA and have not the personnel to do so. The agency admits to being chronically short staffed. **Response:** The IFT has not been fully staffed or funded since reintroduction began in 1998. Recent cutbacks in WS budget have exacerbated problems in management responses (see C/R 19). However (see C/R 18), in 2004 and 2005 AMOC was able to compensate for Congressionally-imposed cutbacks in USFWS funding by infusing more State and USFS funding. At the Reintroduction Project's public meetings in 2005, various individuals commented that some aspects of the field effort had improved as a result of infusion of additional resources into the IFT.
29. **Comment:** The USFWS annual budget for FY 2005 (October 1, 2004 to September 30, 2005) had to be enhanced by a \$350,000 line item. **Response:** USFWS does not receive a specific line item for Mexican wolf from Congress. The Recovery Program has received varying sums of money directly from USFWS's Washington Office (versus the more conventional budget allocation process within USFWS, Region 2, Albuquerque) the last couple of years. In FY 2005 this sum was \$350,000. Depending on the amount allocated

by Washington each year, Region 2 has made up at least part, if not all, of the shortfall in program funds by reallocating funds within the Region. In FY 2006 (October 1, 2005 to September 30, 2006), the USFWS Mexican Wolf Recovery Program is not scheduled to receive funding directly from the Washington Office. Whether USFWS Region 2 will make sufficient regional funds available to cover any wolf program shortfall in FY 2006 (i.e. between the proposed budget and the allocated funds) remains to be seen. However, USFWS will continue to seek the amount of funding needed for the program.

30. **Comment:** The agencies budget for FY 2006 is a half million dollars less than FY 2003 and there are more and more wolves on the ground to manage. **Response:** The initial FY 2006 budget figures for the USFWS portion of the Project budget are down from last year. However, USFWS is only one of six agencies that fund AMOC and IFT activities. Total budget projections (i.e. among all Lead Agencies) for the Project in FY 2006 are close to last year's actual allocations.
31. **Comment:** The USFWS annual budget for FY 2006 (October 1, 2005 to September 30, 2006) will not be enhanced by a line item. **Response:** See C/R 29 and 30.
32. **Comment:** Tax money shouldn't be spent on recovering wolves and putting us out of business. **Response:** Funds spent on Mexican wolf recovery are a lawful, legitimate, and court-mandated use of Federal tax monies. No State or Tribal tax funds are used for the Reintroduction Project. The Socioeconomic Component of the 5-Year Review, conducted by an independent contractor, failed to identify any instances whereby Mexican wolf reintroduction efforts have put anyone out of business. If anyone has documentation to the contrary, please provide it to AMOC.
33. **Comment:** I would like to know the cost of recapturing a wolf. I would think it considerable with all the manpower, vehicles, and aircraft involved. **Response:** AMOC cannot break out each individual activity for a cost analysis; agency cost accounting systems do not enable us to do so. See C/R 30 and 36.
34. **Comment:** There are no measurable meaningful milestones of costs or time to consider if the program is on track. The costs of the program must be available to the public at any and all times. There should be a budget, time table and a plan the public can see the progress of and if results are forthcoming cost effectiveness. **Response:** The AMOC Lead Agencies have made concerted efforts to account for all monies spent on reintroduction and recovery of the Mexican wolf. Current Mexican wolf recovery/reintroduction budget information is presented to the public twice each year, during AMWG meetings (see C/R 242-251 regarding adaptive management). The Socioeconomic Component of the 5-Year Review also addresses Project costs. The 3 and 5-Year Reviews and Reintroduction Project Annual Reports are also benchmarks designed to report and help evaluate progress.
35. **Comment:** The IFT must have state of the art equipment and research tools to better monitor and record data relating to Mexican wolves. Increased funding for research will

increase the type and volume of data collected for improved management. **Response:** The IFT has all the equipment and tools appropriate and necessary to perform its functions. However, the IFT is a management entity, not a research entity. The IFT uses proven techniques that have been developed and/or refined by countless wildlife researchers. The IFT also explores additional methods by which it can improve these techniques for Mexican wolf monitoring and management. Project-related research is largely conducted by parties other than the IFT, to ensure that it doesn't detract from IFT management priorities.

36. **Comment:** What is the cost per wolf of the program? **Response:** Cost per wolf is a highly misleading measure of program effectiveness, because so many factors come into play. As of June 30, 2005, there were approximately 51-63 Mexican wolves in the wild (see C/R 15) and more than 200 in captivity. AMOC estimates that for the period 1977-2005 expenditures on Mexican wolf recovery and reintroduction by all cooperating agencies were approximately \$14,177,094. This does not include expenditures by captive-rearing facilities, which are often subsidized by private donations. Costs for facilities, equipment, and other "long-lived" items must be amortized, not just across wolves produced in captivity or the wild to date, but across those that will be produced within the useful lifespan of such facilities and equipment. Finally, a "cost per wolf" index would fail to attribute costs to such AMOC actions as increasing the quantity, quality, and geographic coverage of public participation components of wolf recovery/reintroduction, which are considerable. See C/R 30 and 33.
37. **Comment:** There needs to be accountability and responsibility for all adverse results associated with this program (public health, personal losses, and revenue loss). **Response:** AMOC and its signatory Cooperators recognize (as stated in the October 2003 MOU convening the group) that negative impacts of wolf reintroduction must be satisfactorily addressed in order to maximize likelihood of success. The question becomes, however, what is the actual extent of impact in each area, and how might these impacts best be remedied? Hard data are needed to refine the extent of impact; thus far such data have proven elusive at best. In the absence of hard data, anecdotal information and more subjective personal observation come into play. The complexity of interpreting cause and effect (thus remedies) is exacerbated, because other factors mask impacts from wolves in many areas of concern. Moreover, despite widespread attention given to documented, undocumented, or perceived impacts, no elected officials have stepped forward to provide a reliable, stable, sufficient source of funding for management incentives or compensation for any aspect of private or local government impact, including livestock depredation. After considering all public and cooperator comment during the 5-Year Review, and its own evaluations, AMOC has made recommendations regarding possible voluntary incentives programs to address livestock depredation issues and associated economic issues (see the AMOC Recommendations Component).
38. **Comment:** Those that live in the recovery area want the wolves out. The only private sector opinions that should be considered are from those people living inside the recovery area. Those that want the wolves that live in cities don't have to deal with a dangerous

- animal in their midst or threats to their livelihoods. **Response:** AMOC is committed to ensuring that the voices of those most directly affected by wolf reintroduction are heard and heeded as decisions are shaped and implemented, but all other opinions and voices must also be heard.
39. **Comment:** Inherent in the Mexican wolf program is the “opinion” that the various rural cultures are not valuable. This is our home and our world and it is being attacked by outsiders in a very sophisticated but insensitive and war-like manner by these transient outsiders from their transient homes, worlds, and careers. The Mexican wolf program if persisted in, will inevitably lead to cultural and material disasters --the rural cultures are threatened by wolf recovery and cannot survive it. **Response:** AMOC believes that a commitment to wolf recovery is unrelated to any “opinions” about whether or not rural cultures are valuable. However, the AMOC Lead Agencies wish to make clear that by law, policy, regulation, ethics, and action, they do and always will value rural cultures. The fact is, wolf reintroduction and recovery are infinitely more compatible with rural than with urban culture. Thus, finding meaningful ways to sustain, even enhance, rural culture is essential to successful pursuit of wolf reintroduction and recovery goals.
40. **Comment:** The USFWS admitted to feeding wolves in captivity diets consisting of beef. Thus if the environmentalists assumption (that wolves that scavenge on livestock carcasses will eventually kill livestock) is correct, then no wolves ever fed from these sources in captivity should be released to the wild. **Response:** Mexican wolves in SSP captive breeding facilities in the USA that are not candidates for eventual release can be fed beef. Many facilities, however, choose not to exercise this option and continue to feed their wolves native prey, or a zoo based canine diet that includes a high protein, nutrient-dense, poultry and pork-based kibble, and a high protein meat “log” made of horse meat and horse meat by-products. Wolves housed at USFWS approved pre-release facilities (i.e. Ladder Ranch Wolf Management Facility, Sevilleta Wolf Management Facility, and Wolf Haven International) are fed a varying diet that does not include beef. Pre-release wolves are primarily fed native prey animals such as mule deer, white-tailed deer, and elk. Most of the native prey food is obtained via road kill salvage. When native prey is not available, pre-release wolves are fed kibble or carnivore logs (but never beef in any form).
41. **Comment:** Any road kill fed to wolves should be disease free to mitigate potential spread of CWD. (#22 Technical). **Response:** Road-killed ungulate carcasses fed to Mexican wolves in captivity or the wild should be disease free. Appropriate, conservative measures are being taken in AZ and NM to avoid potential for spread of CWD (see SOP 9.0: Road Kill Salvage). Understanding of CWD is constantly expanding; as new information becomes available, SOP 9.0 will be amended appropriately.
42. **Comment:** You admit to having continual funding problems to fund the program and now you suggest “financial incentive programs for landowners/permittees in exchange for an increased level of tolerance.” When will you stop finding new ways to spend money and accept there are numerous problems with this Recovery Program and

financing is certainly not the least of it? **Response:** AMOC has consistently stated that funding for the Reintroduction Project, including funds for field staff, currently fall below the level necessary to meet all public desires for information and management actions relating to Mexican wolves. More funding and more funding stability are needed to perform all wolf-related activities at the levels requested by interested publics. These activities include monitoring for wolf locations, determining population size, monitoring reproduction and number of breeding pairs, information dissemination, management and control actions, improving counts of livestock losses to wolves, monitoring for changes in social/cultural aspects of local communities, studies of prey population changes and potential ecosystem effects. Funding for financial incentives described within the 5-Year Review would have to originate from different sources of funds than those already available for the Reintroduction Project, to prevent a reduction of ongoing services the Project currently provides.

43. **Comment:** The main objective of this project is to put ranchers out of business and should be addressed in the 5-Year Review. **Response:** Consistent with the MOU under which the Reintroduction Project operates, the Project's objective is to help recover the Mexican wolf pursuant to the ESA and relevant court rulings, while minimizing negative impacts within the BRWRA. See also C/R 5.
44. **Comment:** The 1996 FEIS on the reintroduction of the Mexican wolf did not demonstrate the real socioeconomic inputs to communities and individuals, did not properly consider local experts observations and opinion, and did not truthfully report the past or reality. This is a gross injustice. **Response:** Socioeconomic aspects of the FEIS were based on the best information available at the time. The FEIS projected future environmental consequences of a range of alternatives as objectively, accurately, and completely as possible. However, this Comment is outside the scope of the 5-Year Review.
45. **Comment:** A large stakeholders group was put together by the Wolf Recovery Coordinator at the time, for the purpose of making recommendations for changes in the program in a way that would forward the program, yet eliminate or mitigate the problems and make things work for the majority of the stakeholders. What has happened to those recommendations? **Response:** The 3-Year Review, which included the referenced Stakeholders Workshop, was conducted in 2001. However, it did not culminate with the desired primary cooperator (USFWS, AGFD, NMDGF, and WMAT) discussion of the recommendations, thus final actions were not taken in a formal or organized, collaborative sense. Several things occurred that contributed to the lack of closure: (1) in July 2001, Congressman Skeen (NM) inserted language in the USFWS 2002 budget allocation directing USFWS to conduct an independent review of the 3-Year Review before taking action on its recommendations; (2) the USFWS Region 2 Director position (covering AZ and NM as well as Oklahoma and Texas) was vacated in 2001, and Acting Directors were hesitant to make decisions in the absence of a new Director; and (3) lack of cooperator and public consensus about the fairness and validity of the overall 3-Year Review process. As a result of these factors, in August 2002 USFWS asked the State

wildlife agencies in AZ and NM to conduct the independent review Congressman Skeen had requested, which was due in September 2002. The states conducted the review, and in September 2002 provided a suite of recommendations to the new USFWS Region 2 Director. From September 2002 through October 2003, the states, USFWS, and eventually other State, Federal, Tribal, and local government cooperators, developed a cooperative adaptive management program to provide fresh guidance for the Reintroduction Project, and restore and enhance opportunities for public involvement in the effort. Fundamental to this renewed commitment to collaboration was conducting a thorough 5-Year Review of the Reintroduction Project, with substantial public involvement, during which the Paquet Report, the Stakeholders Workshop, and all other aspects of the 3-Year Review would be re-considered. The Paquet Report is often referenced as “pure science,” but much of it has administrative, legal, and social contexts, especially some of the key recommendations that were not subjected to final primary cooperator review. The Stakeholders Workshop also generated recommendations, some of which conflicted with other recommendations from the same workshop, and some of which conflicted with recommendations from the Paquet report. These conflicts were never explored or resolved in 2001, for reasons discussed above. Now they have been vetted and addressed during the 5-Year Review. See also C/R 15.

46. **Comment:** USFWS has stopped trapping in winter months unless forced to do so by a major depredation problem and official pressure. **Response:** The IFT traps wolves year-round as necessary for depredation management (see SOP 13.0: Control of Mexican Wolves). However, the IFT does not trap for routine monitoring when temperatures are too cold, because of increased risk of foot injuries (i.e. all management actions have inherent risks) and the labor-intensive monitoring (i.e. hourly trap checks throughout the night) needed for devices that indicate when a wolf has been caught. These devices also require trapping within a localized area, thus limiting success because, in winter, wolves typically only localize in areas near recent kills.
47. **Comment:** Consider termination of the program for various reasons including: budget constraints, ineffective management, failure to implement the Final Rule, failure to deal with public safety issues, wolf reintroduction has changed the socioeconomic, culture and customs of the recovery area. **Response:** Under applicable Federal law, and relevant court decisions, wolf reintroduction will be pursued until recovery has been achieved, thus setting the stage for Federal downlisting, and delisting, and a “return” to State and Tribal management outside the ESA. See also C/R 14.
48. **Comment:** WS should have the lead for the program. **Response:** Each of the six AMOC Lead Agencies brings unique authorities and responsibilities to Mexican wolf management. The ESA of 1973, as amended, commits all Federal departments and agencies (and States participating in ESA Section 6 agreements, such as AZ and NM) to conserving endangered and threatened species, and using their authorities in furtherance of the purposes of the ESA. Under Federal law of March 2, 1931, WS, a Federal agency, is also responsible for providing Federal leadership and expertise to resolve conflicts between humans and wildlife, including threatened and endangered species. Conflicts are

resolved in cooperation with Federal, State, and Tribal agencies, private individuals, and other public and private agencies, organizations, and institutions. USFWS is the lead Federal agency in matters pertaining to the ESA. In addition, each State or Tribal wildlife agency is responsible for managing wildlife within its boundaries as a public or Tribal trust. Thus, responsibility for the Reintroduction Project is appropriately shared among the six AMOC Lead Agencies.

49. **Comment:** Remove cooperator status of NGOs that influence the program through financial contributions. **Response:** Per the MOU under which the Reintroduction Project operates, NGOs do not have Cooperator status in AMOC or in AMWG. No NGO has influenced or will be allowed to influence (i.e. directly or indirectly) the Reintroduction Project via financial contributions, although AMOC continues to welcome financial contributions from any organization or individual for purposes that are consistent with Project objectives and management approaches. See also C/R 245 and 247.

## **B. Legal Issues**

50. **Comment:** The 5-Year Review should contain some discussion and recommendations concerning law enforcement in wolf mortalities. **Response:** Law enforcement is a small but crucial portion of reintroduction/recovery efforts for species like the Mexican wolf. The 5-Year Review will be revised to address general enforcement issues better, but discussion of individual active investigations is precluded to protect the integrity of the investigations and potential prosecutions. Also, after considering all public and cooperator comment during the 5-Year Review, and its own evaluations, AMOC has made a recommendation regarding law enforcement activities, including investigative issues (see the AMOC Recommendations Component).
51. **Comment:** Prior to a rule change or recommending any changes to livestock operations in the BRWRA, a takings implication assessment should occur. A real one – not the shallow inadequate attempt implemented by the prior FEIS related to the current rule. There have been several cases since the FEIS relating to property on Federal lands, surface easements, and water rights that need to be completely considered before implementing any new changes that detrimentally affect livestock operators. **Response:** The Reintroduction Project is authorized under the Final Rule, which reflects a commitment to integrate wolf reintroduction and recovery into multiple-uses of public lands and to minimize conflicts on private lands. The Final Rule is not structured, nor is the Reintroduction Project empowered or administered, to force changes in public or private grazing practices to accommodate presence of wolves. Thus, the 5-Year Review and ongoing adaptive management of the Project will continue to focus on finding and implementing incentives for voluntary actions by ranchers and other stakeholders that would help accommodate presence of wolves by reducing conflicts such as livestock depredation. After considering all public and cooperator comment during the 5-Year Review, and its own evaluations, AMOC has made a recommendation regarding possible voluntary incentives programs to address issues reflected in this Comment (see the AMOC Recommendations Component). However, concerns about “takings” implications

for livestock operations should be addressed through agency appeals processes and/or legal action, as they largely represent constitutional and legal issues about which there is significant disagreement between and among the interested and affected parties (i.e. they are beyond the scope of the 5-Year Review).

52. **Comment:** You have no flexible legal protection like a large control zone with complete protection (the containment area) surrounded by a zone in which wolves can be taken under permit or for depredation control or for reduction of wolf numbers. **Response:** Cooperating agencies within AMOC are committed by law, rule, and policy to manage wolves within a multiple-use context on public lands. There is no place in that scenario for a large control zone in which wolves are completely protected (e.g. where wolves would never be controlled, regardless of depredation behavior). Management (including prescribed take) of wolves within the Reintroduction Project is essential to comply with applicable laws (e.g. ESA), regulations (e.g. Final Rule), and policies (e.g. AMOC SOPs) and to appropriately balance wolf conservation (and progress toward recovery) with pre-existing multiple-uses of public lands and private property rights.
53. **Comment:** Page 22, Paragraph 2 (Technical): The word “illegal” should be added before “vehicle collision” to those that were not reported as required by the Final Rule because it is illegal to kill a Mexican wolf by vehicle and then not report it. Similarly, “lethal control” should be changed to “government gunshot” and “capture complications” should be changed to “stress from government aerial pursuit.” **Response:** The referenced paragraph of the 5-Year Review summarizes the types of wolf mortalities that have occurred in the BRWRA. The collision itself is not illegal; failure to report the collision to the appropriate authorities is the illegal action. As for the other suggestion, lethal control and capture complications more accurately describe the occurrences.
54. **Comment:** The right for individuals to protect themselves and their property from a wolf attack must be a part of any and all rules pertaining to the Mexican wolf. **Response:** The rights of individuals to protect themselves (and their property in certain circumstances) are affirmed in the Final Rule.
55. **Comment:** USFWS had prior knowledge of the likelihood of livestock predation and knew that take of private property would occur yet no funds have been appropriated to pay for the take of US citizens’ property. This is a violation of the Constitution. If tax payers want wolves, then taxpayers should pay for all costs of the program including private property damages. **Response:** See C/R 223-251 regarding compensation.
56. **Comment:** Livestock owners should be allowed to protect their property regardless of where the livestock or the wolves are. The US Constitution outlines the rights of all citizens regardless of whether they are on private, State or Federal lands and the USFWS has made an unprecedented statement (law) which gives different rights depending on where someone is located. **Response:** On private lands and Tribal Trust Lands anywhere within the MWEPA, the Final Rule states “livestock owners or their agents may take (including kill or injure) any wolf actually ‘engaged in the act of killing, wounding, or

biting livestock;’ provided that evidence of livestock freshly wounded or killed by wolves is present; and further provided that the take is reported to the Service’s Mexican Wolf Recovery Coordinator or a designated representative of the Service within 24 hours.” The Final Rule also includes a provision that livestock owners or their agents may be issued a permit on public lands, under the ESA, to take wolves actually engaged in the act of killing, wounding, or biting livestock. Before such a permit is issued, several conditions must be met, including: a) livestock must be legally present on the grazing allotment; b) six or more breeding pairs of Mexican wolves must be present in the BRWRA; c) previous loss or injury of livestock on the grazing allotment, caused by wolves, must be documented by USFWS or authorized agent; and d) agency efforts to resolve the problem must be completed. At this time (September 2005), all four of these conditions have not been met in any one incident, thus no landowner permits have been issued.

57. **Comment:** Losses of livestock to other predators must also be considered a take of property by the program as severe restrictions have been placed on the use of M44s, leg hold traps, and aerial gunning of coyotes. **Response:** The Final Rule states that “the WS division will discontinue use of M-44s and choking-type snares in “occupied Mexican wolf range” (see definition in section 17.84(k)(15)).” A USFWS Biological Opinion issued to WS allows for M-44 use in the recovery area outside “occupied habitat.” However, WS has chosen to be even more restrictive to ensure protection of wolves. The Final Rule does allow “selective lethal control of coyotes by traps, calling and shooting, and aerial shooting, as well as a variety of non-lethal techniques.” No restrictions were placed on management of bears and mountain lions. Furthermore, in NM, the NMDA restricts use of M-44s by private applicators in areas of Mexican wolf habitat.
58. **Comment:** How long can the American citizen expect to suffer under the mandates of a failed program and the dictates of the ESA? As a result of the ESA, citizens all across America have suffered as a result of a veritable cornucopia of nonessential species listings. I demand the ESA be repealed, terminated or major modifications enforced. **Response:** The Reintroduction Project has not failed. Reauthorization of the ESA is an issue to be addressed in Congress and is beyond the scope of the 5-Year Review.
59. **Comment:** How long do the agencies plan on continuing this failed program? **Response:** See C/R 47 and 58.
60. **Comment:** How long will funding continue to be allocated in support of this failed program? **Response:** See C/R 47 and 58.
61. **Comment:** There is no public mandate to recover Mexican wolves. **Response:** See C/R 47 and 58.
62. **Comment:** All of this is being done for a statute that expired many years ago (ESA) and would not be in place except for the appropriations committee not fighting for proper rules and procedures. It is hoped expired statutes would not be funded as a rule. **Response:** The ESA was due for reauthorization in 1993. Although it has not been

reauthorized, the USFWS Endangered Species program has continued to receive annual appropriations while Congress considers reauthorization. This allows conservation actions for threatened and endangered species to continue. The annual appropriations also serve to extend the ESA, as currently amended, one year at a time.

63. **Comment:** A congressional investigation should be made to investigate the USFWS and the field team. **Response:** AMOC does not intend to request a Congressional or GAO investigation of the USFWS, the IFT, or any other element of the Reintroduction Project; nor does AMOC believe an investigation is warranted or that it would be fruitful.
64. **Comment:** The Mexican wolf recovery plan says there is “no possibility for complete delisting of the Mexican wolf.” Mexican wolves will never be delisted so the statements you make to us about delisting them once 100 wolves are in the wild is a lie. **Response:** AMOC believes that no agency or employee representing the Reintroduction Project has ever said, nor could they say at this time, that achieving the Reintroduction Project’s population objective of at least 100 wolves in the BRWRA would ensure delisting the Mexican wolf. There is no such guarantee of delisting, and never has been. In addition, we note that the 1982 Mexican Wolf Recovery Plan (USFWS 1982) referenced in this Comment is 20 years out of date. The Plan itself notes that both the Plan and the quantified objective are “subject to amendment as more data on the Mexican wolf are acquired.” New recovery guidance, based on what has been learned over the past 20 years, will be determined when the Recovery Plan is revised and approved, a process that was well underway in 2004. Given the recent U.S. District Court decisions (Defenders of Wildlife et al. v. Secretary, U.S. Department of Interior; et al. 03-1348-JO; and National Wildlife Federation et al. v. Secretary, United States Department of Interior. 1:03-CV-340) to vacate the USFWS (2003) gray wolf reclassification, USFWS Region 2 put the SWDPS Recovery Team on hold in February 2005 pending a formal response to the court rulings. This means the Recovery Team cannot complete a revised Recovery Plan that covers the Reintroduction Project and the BRWRA until after this 5-Year Review has been completed. Whether or not achieving the BRWRA population objective is alone sufficient for recovery (thus delisting), or merely a step toward recovery, will not be clear until the Recovery Plan is completed and approved. See C/R 359 regarding the BRWRA population objective.

Note: On December 19, 2005, AMOC was informed that Craig Manson, Assistant Secretary of the Interior for Fish, Wildlife and Parks, had that day issued a statement on the USFWS decision regarding the U.S. District Court decisions earlier this year striking down USFWS’s reclassification of gray wolf populations. Mr. Manson’s statement was as follows:

The U.S. Fish and Wildlife Service will not appeal U.S. District Court decisions earlier this year striking down the Service’s reclassification of gray wolf populations from endangered to threatened for much of the species’ current range in the United States, although we continue to believe the reclassification was both biologically and legally sound. We are exploring options for managing wolf

populations that comply with the Courts' rulings, while recognizing, as the courts did, that the Yellowstone and Great Lakes wolf populations have reached the recovery goals necessary for delisting.

The Department of the Interior plans to issue separate, proposed rules to delist new distinct population segments of gray wolves in the northern Rocky Mountains and the Great Lakes as early as possible in 2006. Both proposed rules will have public comment periods lasting 90 days.

In the meantime, gray wolves will continue to be managed as they were prior to the 2003 reclassification. Gray wolves in Minnesota are classified as threatened, as a result of a 1978 reclassification. Gray wolves in the remaining 47 conterminous states and Mexico are endangered, except where they are listed as part of an Experimental Population for reintroduction purposes in the northern Rockies and parts of the Southwest. Citizens with concerns about wolf management should contact the Fish and Wildlife Service or their State wildlife agency for clarification of what actions are currently allowed under the management designation in effect where they live.

In light of Assistant Secretary Manson's statement (above), USFWS Region 2 also affirmed on December 19, 2005 that it would move forward with wolf recovery planning in the Southwest. Meanwhile, after considering all public and cooperator comment during the 5-Year Review, and its own evaluations, AMOC has made various recommendations to USFWS and for AMOC action on issues that it considers necessary to address within the context of the 5-Year Review of the Reintroduction Project and the Final Rule under which the Project operates (see the AMOC Recommendations Component).

65. **Comment:** Permit and urge WS officers to fulfill their obligations to the public in the area of predator control in spite of any objections to the contrary by USFWS. This is provided for under Title 7, U.S. Code for the Department of Agriculture, APHIS. **Response:** Title 7 of the U.S. Code Section 426 states "The Secretary of Agriculture may conduct a program of WS with respect to injurious animal species and take any action the Secretary considers necessary in conducting the program. The Secretary shall administer the program in a manner consistent with all of the WS authorities in effect on the day before October 28, 2000." Activities conducted by the WS Program are dependent on available funding and direction from Congress, the President, and the Secretary of Agriculture. See also C/R 48 regarding the WS mission.
66. **Comment:** Once wolves are at the 100 level, total management should be turned over to the States to be managed in conjunction with all other wildlife. **Response:** The long-term prognosis for management of wolves in AZ and NM cannot be determined until a Recovery Plan covering this area has been completed and approved (see C/R 64). If and when delisting occurs, wolf management will become a State and Tribal wildlife management responsibility, in accordance with USFWS approved State- and Tribe-specific management plans. However, if recovery proceeds to the point at which the

Mexican wolf is downlisted to “threatened” status, management could also become a State and Tribal responsibility pursuant to a special rule issued under Section 4(d) of the ESA. Meanwhile, with the Mexican wolf listed as an “endangered” species, management remains a Federal responsibility, in cooperation with the States, Tribes, and other partners as described in the Final Rule and various AMOC and other relevant documents.

67. **Comment:** Hunting should be stopped in wolf country. **Response:** Wolf recovery, including reintroduction, is compatible with hunting, as has been amply demonstrated for many years in the Great Lakes region and Northern Rockies. There is no evidence indicating hunting or hunters limit wolf reintroduction or recovery. To the contrary, hunter license fees are the foundation of wildlife management programs that manage the wild ungulates that are the primary prey base of wolves. See also C/R 17.
68. **Comment:** Any public land permittee (i.e. rancher) who kills a wolf for any reason other than to protect human life should be required to forfeit all grazing leases in perpetuity. Likewise, any hunter who kills a wolf would lose his/her right to hunt on public lands in perpetuity. **Response:** Appropriate penalties for unlawful actions are defined in law and rule. The courts are the forum in which to advocate this belief, not the 5-Year Review.
69. **Comment:** The program is a failure and should be abandoned immediately. **Response:** See C/R 47 and 58.
70. **Comment:** Discontinue the project – if the wolves survive independently, so be it; if they become extinct, so be it. **Response:** See C/R 47 and 58.
71. **Comment:** Is this program one of perpetuity or is there an established schedule and perceived milestone date? **Response:** There is no final milestone date for determining whether success has been achieved or the effort should be discontinued. See C/R 66.
72. **Comment:** The program should be stopped before a human life is lost. **Response:** Although attacks by wolves on humans do occur, they are considered extremely rare in North America (see also C/R 175, 328, 330, 332, and 415 on the well documented low probability of human injury or death from wolves). Loss of a human life for any reason would be tragic, but the Reintroduction Project will continue until the ESA, a Final Rule revision, and/or a court decision dictates otherwise, or recovery is achieved and reintroduction transitions to State and Tribal population management and maintenance.
73. **Comment:** The program should be stopped until USFWS: 1) can verify that every wolf is free of hybridization, 2) can identify with certainty how each wolf is obtaining its food supply and 3) can keep wolves from coming into contact with the public in a threatening manner. **Response:** USFWS has a legal mandate under the ESA to conserve and recover listed species, including the Mexican wolf. The other cooperating agencies in AMOC share that responsibility. The genetic pedigree of every wolf in captivity is known; all are pure Mexican wolves. It is impossible and unrealistic for anyone to verify every wolf in the wild is free of hybridization, because not all Mexican wolves in the wild have been

(or can be) captured and genetically assessed. However, aside from two wild-born litters that were discovered (and subsequently euthanized), there is no evidence to date (as determined by ongoing genetic testing of all captured wolves) to suggest hybridization with dogs or other canids is occurring in the free-ranging wolf population. It is equally unrealistic to expect the Reintroduction Project to determine how each wolf is obtaining its food supply, or to keep wolves away from people, as wolves are curious animals and will sometimes come into proximity of people. Agencies cannot prevent free-ranging wildlife from interacting with humans, or vice versa.

74. **Comment:** Considering the financial circumstances of the program and the fact that there is likely to be even less funding in the future, termination or no further expansion of the program is a valid recommendation. **Response:** After considering all public and cooperator comment during the 5-Year Review, and its own evaluations, AMOC has made a recommendation against terminating the Reintroduction Project (see the AMOC Recommendations Component). See also C/R 47 and 58.
75. **Comment:** Immediately relinquish control of the program from the USFWS to county or State government agencies. **Response:** Dissatisfaction reflected or expressed during and after the 3-Year Review strongly indicated the need to move the reintroduction effort from control of a single agency (USFWS) to oversight and management by a broader partnership. The States of AZ and NM strongly advocated in September 2002 that cooperation of at least the two State Wildlife Agencies and USFWS was essential to addressing wolf issues and to effectively representing State and local interests. The States also advocated stronger, more meaningful participation by local governments. The desired partnership State-Federal-Tribal partnership is being achieved through AMOC, although the redefined effort is little more than 2 years old. Counties within the BRWRA were aggressively solicited to participate, but only one – Greenlee County AZ – has taken full advantage of the opportunity. Two other Counties are signatory to the AMOC MOU, but are not active participants. Three other Counties initially attended meetings and participated in shaping the AMOC MOU, but have since dropped out, in one case (Catron County NM) asserting in public meetings that its participation would just lend credence to the adaptive management effort, when the only acceptable outcome for them is removal of all wolves from wild and abandonment of recovery efforts. See C/R 66.
76. **Comment:** We believe the Mexican wolf project has failed in many ways. The first major injustice came when you failed to consider the effect it would have on the Blue community, the livelihoods of livestock producers, the lifestyles of everyone who lives here from the ranchers to the retired people who have a pet dog, cat, or chicken, the hunter who have dogs, mules, and horses they use for their business, the school children who have had to learn to be watchful on the playground and the teacher who is responsible for their well-being. We think it is time you gave a long hard look at the program. The funds spent, the failure incurred, and the many hungry children and needy elderly people we could be helping with that 10 million. Where are your priorities and values? **Response:** The USA is a patchwork quilt of public and private priorities and values; rarely can one be set aside entirely in favor of another. Finding a balance between

opposing values is the essence of governing a democracy, and managing natural and other resources. Wolf reintroduction, public lands, private property rights, human hunger, and rural lifestyles are not either/or values. They must be weighed against each other, and compromises must be made that enable stakeholders favoring each to have meaningful returns on their societal investment. Give and take is vitally important. In any event, the potential effects of wolf reintroduction on communities within the BRWRA were considered through NEPA process before reintroduction was approved in 1998. AMOC remains committed to such values. However, that does not mean decisions will never be made that favor other values. See also C/R 47 and 58.

77. **Comment:** Stop all Federal funding of the Mexican wolf program with all funding being reallocated for watershed improvements in the Gila wilderness and surrounding areas. **Response:** The Mexican Wolf Recovery Program and the Blue Range Reintroduction Project are conducted under auspices of the ESA. Most of the funding for the Mexican Wolf Recovery Program is appropriated by Congress to the USFWS. Funding for watershed improvements in the Gila Wilderness Area would be allocated to USFS, therefore it is not possible to directly divert funds. Furthermore, the Gila National Forest has been using fire as a management tool in the Gila Wilderness. These management activities are expected to result in long term benefits to watershed condition and ecosystem health. Other than fire, direct habitat manipulations are not allowed in Wilderness Areas.
78. **Comment:** We oppose further funding or exploring this program. There are so many factors that have not proven successful and too much has been spent already. There are many disaster victims who we consider more important than the Mexican wolf reintroduction. **Response:** See C/R 47 and 58.
79. **Comment:** My suggestion for the Mexican wolf program is to take six sections of the National Forest southeast of Reserve NM and fence it 9 feet high with chain link and lay 2 foot wire on the inside ground so wolves can't dig out and put the wolves in this area which should be adequate space for them to roam and breed. Question #1 is food source. One that comes to mind besides road kill would be a contract with the dairies by Anthony NM for old cows that are inadequate for further production to be used as wolf food. If you wanted this to pay its own way, you could put a visitor center and lodging place in the center of the area so people could visit and see them and hear them howl. I think it would bring in a lot of tourists to Catron County which we all know needs the revenue. **Response:** See C/R 14 regarding why a fenced enclosure would not contribute toward recovery.
80. **Comment:** USFWS inflexibility in changing the MOU is what is keeping most of the other affected counties from signing it. **Response:** All affected Counties participating in developing the MOU, whether or not they ultimately signed the MOU, contributed to crafting the final language that was endorsed by all signatories. Every County issue was addressed through revisions that were accepted by all participants, as evidenced by discussion at the "negotiating table." Unfortunately, most of the affected Counties have

opted not to participate actively, even in non-public meetings, thus preventing AMOC from determining what “changes” they might have in mind now.

81. **Comment:** Sierra County has not signed the MOU as reported on Page 7 (Administrative). **Response:** AMOC has a signed copy of the October 23, 2003 final (approval) draft of the MOU on file.
82. **Comment:** Page 4, paragraph 3 (Technical): The reclassification of wolves was overturned thus the wolf is not the DPS as a listed entity. Note also that the 1978 FR Gray Wolf Reclassification Rule that is now current states that recovery will move forward according to biological subspecies. **Response:** The final 5-Year Review will appropriately reference the listed status of the wolf and the SWDPS as they stand when the Review is completed. See C/R 64 regarding the USFWS decision on appeal of U.S. District Court decisions regarding reclassification.
83. **Comment:** Page 34, Paragraph 2 (Technical): The reference to the “recent reclassification rule for gray wolves” should be removed due to recent litigation. Furthermore it was not part of the Paquet Report nor the Philips et al. article cited and is not germane to the reasons why the boundary rule is inappropriate. **Response:** The final 5-Year Review will appropriately reference the listed status of the wolf and the SWDPS as they stand when the Review is completed. See C/R 64 regarding the USFWS decision on appeal of U.S. District Court decisions regarding reclassification.
84. **Comment:** Page 42, Paragraph 2 (Technical): Since there is no longer a SWDPS, wolves should be allowed to roam free regardless of political or regulatory designations so long as they are not creating a tangible problem. **Response:** The final 5-Year Review will appropriately reference the listed status of the wolf and the SWDPS as they stand when the Review is completed. See C/R 52 regarding management “zones,” and see C/R 64 regarding the USFWS decision on appeal of U.S. District Court decisions regarding reclassification.
85. **Comment:** Page 85, Item 8 (Technical): The SWDPS no longer exists and progress on developing a revised plan has been stopped by the USFWS Regional Director. **Response:** The final 5-Year Review will appropriately reference the listed status of the wolf and the SWDPS as they stand when the Review is completed. See C/R 64 regarding the USFWS decision on appeal of U.S. District Court decisions regarding reclassification.
86. **Comment:** The nullification of the 2003 gray wolf listing rule does not obviate the USFWS mandate under the ESA to continue to recover the Mexican wolf. Rather, the mandate reverts to the 1978 listing under which Mexican wolf recovery was conceived and implemented. USFWS has no legitimate excuse or reason to continue to delay actions necessary for Mexican wolf recovery. **Response:** The final 5-Year Review will appropriately reference the listed status of the wolf and the SWDPS as they stand when the Review is completed. See C/R 64 regarding the USFWS decision on appeal of U.S. District Court decisions regarding reclassification. As for delays in recovery actions,

- USFWS and cooperating agencies have implemented or are implementing the majority of the recovery actions in the 1982 Mexican Wolf Recovery Plan Implementation Schedule (see Page 59 of the Recovery Plan, USFWS 1982) (e.g. 111-1, 111-2, 112-1, 112-21, 112-22, 12, 131, 132, 133, 211, 212-1, 212-2, 221-1 (or as per SOP 13), 221-2, 221-3, 222-1, 222-21, 222-22, 222-23, 222-3, 23, 241, 242, 243, 244, 245, 246, 247, 261-1, 261-2, 261-3, 262, 311-3, 311-2, 311-3, 312-1, 312-2, 313, 314, 315, 316, 321, 322-324, 33, 34, 5). See also C/R 64, 82-85.
87. **Comment:** Due to the recent litigation that vacated the Gray Wolf Final Rule, the status of the SWDPS Recovery Team needs to be discussed and clarified in the 5-Year Review. **Response:** The discussion requested in this Comment is outside the scope of the 5-Year Review. See C/R 64 regarding the USFWS decision on appeal of U.S. District Court decisions regarding reclassification. See also C/R 82-86 and the Administrative Component of the 5-Year Review.
88. **Comment:** Given the recent court decision on the DPS, the USFWS should reconsider the SWDPS to more properly coincide with the historic range of the Mexican wolf. This would limit the primary reintroduction effort to Mexico and a narrow area along the Mexican border in Texas, NM, and AZ. **Response:** See C/R 64 regarding the USFWS decision on appeal of U.S. District Court decisions regarding reclassification and reinitiating wolf recovery planning in the Southwest. See also C/R 82-87. Although the limited area referenced in this Comment once comprised the northerly portion of known historical range of the Mexican wolf (e.g. when the FEIS was completed; see also Garcia-Moreno et al. 1996), recent genetic research (Leonard et al. 2005) strongly suggests a wider mandate for reintroduction of the Mexican wolf may be justified due to evidence of extensive historic gene flow between Mexican wolves and northern wolves across the previously recognized boundaries of the various subspecies.
89. **Comment:** Currently there is a study in effect to increase the wolf range to include the entire States of NM, AZ, and parts of Utah, Colorado, Oklahoma, Texas, and Mexico. This activity needs to be terminated. Agencies have failed to maintain control and implement goals within the current experimental area. Attempts to broaden the areas of introduction will further devastate the local economies and the welfare of its citizens. **Response:** This Comment is in reference to the SWDPS Recovery Team and apparently an imminent publication by Carroll et al. (*in press*). Neither is within the scope of the 5-Year Review. Moreover, AMOC has no authority over, or influence on, independent scientific research. See also C/R 64 and 82-88.
90. **Comment:** Other areas including but not limited to the Sky Islands ecosystem, Southern Rockies in southern Colorado and northern NM and the Grand Canyon ecosystem need to be evaluated for reintroduction of Mexican wolves. **Response:** This Comment is outside the scope of the 5-Year Review. See also C/R 88-89.
91. **Comment:** Page 14 Administrative Component. WSMR should still be considered. All models and assessments predicting failures if wolves are released there are based on the

discredited notion of confining wolves to a specific area. WSMR is supposed to be used if the BRWRA ends up insufficient to get to 100 wolves. There is now abundant evidence that under the current management that goal may not be reached. WSMR should be opened up for releases and should be authorized in this review. Failure to do so along with failure to change management to allow the BRWRA to reach 100 wolves may constitute a NEPA violation. **Response:** Five independent evaluations (Bednarz 1989, USFWS 1996 [the FEIS], Green-Hammond 1994, Paquet et al. 2001, and Carroll et al. *in press*) have all concluded that WSMR is an inferior area for Mexican wolves because of its small size, isolation from other suitable habitat, and poor surrounding wolf habitat which would hinder dispersal to and from other areas. After considering all public and cooperator comment during the 5-Year Review, and its own evaluations, AMOC has made a recommendation to eliminate WSMR as a Mexican wolf recovery area or reintroduction zone (see the AMOC Recommendations Component). See also C/R 95, 100, 103, and 117 regarding rulemaking and NEPA.

92. **Comment:** The SWDPS exceeds the historic range of the Mexican wolf and should be modified to reflect that the range does not extend beyond an 80 mile distance north of the Mexican border in AZ and NM. **Response:** See C/R 64 regarding status of the SWDPS and C/R 82 and 89 regarding the evolving understanding of Mexican wolf historical distribution.
93. **Comment:** We question the appropriateness and scientific validity of imposing secondary boundaries on this small population of endangered wolves and we see no reason why highly endangered Mexican wolves should receive lower standards of protection and tolerance than more abundant wolves elsewhere in the USA. **Response:** The Mexican wolf is protected under ESA consistent with the law itself and the Final Rule under which reintroduction is occurring. The Final Rule, issued under Section 10(j) of the ESA, designates the AZ-NM population as “experimental nonessential,” meaning that wolves released to the wild within the 10(j) boundary are not essential to recovery. That is, even if all wild Mexican wolves in the BRWRA died, elimination would not occur because there are now sufficient Mexican wolves in captivity. Secondary boundaries, such as were established in the Final Rule, are implemented when they will help achieve the desired results for reintroduction, and thus contribute toward recovery. The need for secondary boundaries seemed clear in the FEIS. The 5-Year Review was intended, in part, to revisit that need in terms of the on-the-ground experience that has been gained since 1998 through reintroduction and management. Consequently, after considering all public and cooperator comment during the 5-Year Review, and its own evaluations, AMOC has made a recommendation regarding possible secondary boundary adjustments to facilitate initial wolf releases and translocations and to enable broader dispersal throughout the MWEPA (see the AMOC Recommendations Component).

### C. 10(j) Final Rule

94. **Comment:** The Mexican wolf program does not have a clearly defined goal stating exactly what the criteria and numbers will be for delisting the Mexican wolf as an

endangered species. Clearly defined, attainable, and realistic goals must be included as part of the 5-Year Review. **Response:** The 5-Year Review is not the appropriate legal tool to define recovery downlisting and delisting criteria for the Mexican wolf program. That is a Recovery Team and Recovery Plan function. See C/R 64 and 93.

95. **Comment:** We recommend USFWS move forward with the draft rule change language by sharing it with the public. **Response:** After considering all public and cooperator comment during the 5-Year Review, and its own evaluations, AMOC has made recommendations regarding possible changes in the Final Rule or creation of a new Final Rule (see the AMOC Recommendations Component). The USFWS will determine whether and how to proceed with AMOC's recommendations. If and when proposed rule change language is drafted, it will be released to the public pursuant to the ESA, APA, and NEPA to ensure appropriate opportunities for participation and input by the public. See also C/R 64 and 93.
96. **Comment:** A unified, consensus recommendation from the SWDPS Recovery Team in order to change the Final Rule is unrealistic. The management of the Mexican wolf is the responsibility of the Secretary of the Interior (entrusted to USFWS and the Recovery Team works at the pleasure of the Secretary. USFWS has an affirmative responsibility and a mandate under the ESA to recover endangered species and that responsibility cannot be trusted to a non-government entity like the Recovery Team. A rule change should be advanced independently of the Recovery Team process. **Response:** As noted in C/R 64, the SWDPS Recovery Team is inactive at this time. Any questions or concerns regarding the Team and its activities or responsibilities are outside the scope of this 5-Year Review and should be posed to the USFWS Southwest Regional Director. See C/R 93, 95, and 99 regarding AMOC's recommendations for changes in the Final Rule.
97. **Comment:** We note this is the third technical review of this project since 1999 – all of which have recommended that the existing rule be revised. USFWS has delayed this important decision for 5.5 years. Further delay cannot be justified. **Response:** There have been three technical reviews of the Mexican wolf program. The first review was held in January 1999, after the majority of the wolves released the first year in 1998 were illegally shot and killed. That review indicated the need to revise the Final Rule to allow for release of wolves in more isolated, remote, areas to reduce the likelihood of illegal shootings and wolf/livestock conflict. Please see the Administrative Component of the 5-Year Review for explanation of why a Final Rule amendment was not completed subsequent to the 1998 review. The second technical review, commonly referred to as the Paquet report, was performed in 2001 as part of the 3-Year Review. The known factors contributing to failure to complete and implement the 3-Year Review are discussed in C/R 15 and 45. The third review is this 5-Year Review. Thus, all three reviews have concluded that the Final Rule should be revised to enhance progress toward the reintroduction population objective and recovery. See C/R 93 and 96. See also Parsons and Nicholopoulos 1998.

98. **Comment:** The short-comings of the program stem directly from politically motivated project components incorporated into the initial project design and Final Rule. We strongly recommend a science-based revision of the current rule and science-based implementation of the project from this point on. **Response:** The Mexican Wolf Blue Range Reintroduction Project was authorized for and is carried out on lands that are largely public, and subject to multiple-use. Biological science is not the only driver for recovery efforts, and determining how much of a landscape can or should be dedicated to recovery efforts is not a simple or an easy matter (e.g. see Carroll et al. *in press*, Reading et al. 1997, and Vucetich et al. *in review*). Although all recovery and reintroduction efforts should, if not must, reflect the best available science, other factors, such as valualational and organizational considerations (i.e. social tolerance and human dimensions), legitimately come into play; in fact, they might be crucial to determining success or lack thereof (e.g. Reading et al. 1997, Breitenmoser et al. 2001). Thus, the 5-Year Review and its recommendations (see the AMOC Recommendations Component) are consistent with science, but were also shaped by consideration of other relevant information, including social values and concerns as well as biological needs and constraints.
99. **Comment:** Absent continued releases of wolves into the BRWRA in perpetuity, it is difficult to see how the population can grow and sustain itself under the restraints of the boundary rule. **Response:** After careful consideration of public comment on the 5-Year Review and its own evaluations of wolf management activities and problems in the BRWRA, AMOC has reached the same conclusion. Accordingly, AMOC has made recommendations regarding possible changes in the Final Rule or creation of a new Final Rule to adjust at least the secondary boundaries and to enable dispersal throughout the MWEPA (see the AMOC Recommendations Component). See also C/R 93 and 95-98.
100. **Comment:** The existing FEIS already analyzed an alternative without boundaries. Any additional NEPA required for a revised rule should not require multiple years to complete. **Response:** The FEIS did analyze an alternative without boundaries; Alternatives A, B, and C included reintroduction of wolves into (only) the Primary Recovery Zone of the BRWRA. The alternatives differed in their approach to dispersal, with Alternative A allowing wolves to disperse (or be translocated) into the Secondary Recovery Zone only, Alternative B allowing no dispersal outside the primary recovery zone, and Alternative C designating reintroduced wolves as endangered and allowing wolves to disperse with no boundary (Alternative D was the No Action alternative). However, because the FEIS analyzed the presence of wolves throughout the entire BRWRA, the 5-Year Review states that revision of the Final Rule would not require preparation of a supplemental EIS if the only revision were to allow direct releases into the Secondary Recovery Zone in addition to the Primary Recovery Zone (see B.5 in the Administrative Component of the 5-Year Review). However, the 5-Year Review goes on to explain that wolf dispersal beyond the BRWRA has become a significant management and recovery issue, and it recommends revision of the nonessential population boundary rule to address this problem (see Management Implications, Technical Component). The effects of allowing wolves to disperse to SCAR, FAIR, the Sitgreaves National Forest,

and the San Mateo Mountains were analyzed under Alternative C within the FEIS. However, these effects were analyzed with Mexican wolves classified as endangered rather than nonessential experimental. Further, the current revision may or may not include a greater area than described under Alternative C, therefore a supplemental EIS would likely be required during the process of rule revision. A rule revision of that magnitude (which could include additional possible revisions beyond those mentioned here) would require significant technical, social, and economic review and considerable public scoping; the process could, therefore, realistically take more than a year to complete.

101. **Comment:** Modify the Final Rule to allow direct releases of wolves into the Gila National Forest. **Response:** See C/R 93 and 95-99.
  
102. **Comment:** Translocation of free-ranging wolves for management purposes was not presented to the public and affected interests at the time the proposed rule was promulgated nor was it given proper evaluation in the EIS. The decision to take this management direction was the result of a liberal and deceptive interpretation of the rule. **Response:** Translocation of Mexican wolves as a management action was done with full public participation and disclosure. The FEIS and ROD for reintroduction of Mexican wolves analyzed in detail the presence of wolves and the associated effects for the entire BRWRA, which includes both the primary and secondary zones. Many key changes or clarifications regarding the proposed rule were incorporated into the Final Rule, based on public and primary cooperator comments received on, or related to, the proposed rule. One of those key changes was that the definition of “secondary recovery zone” was modified to clarify that, following initial release of wolves in the primary recovery zone; wolves may be translocated and released into the secondary recovery zone for authorized management purposes. Following publication of the Final Rule on January 12, 1998, additional public comment was accepted for a 14-day period. Because of the high public interest regarding translocation of wolves into NM, especially those that previously depredated livestock, on January 14, 2000, USFWS announced its intent to prepare an Environmental Assessment (EA) entitled “The Environmental Assessment for the Translocation of Mexican Wolves Throughout the BRWRA in Arizona and New Mexico.” Translocation of wolves is a management action discussed in general terms in the FEIS and associated ROD. The intent of the EA was to provide a specific connection between the general terms used in the FEIS and ROD to the specific language in the Final Rule that authorizes translocations. A scoping letter was sent to more than 1000 interested members of the public. Additionally, news releases requesting input on wolf translocation were distributed, and agency personnel contacted local ranchers, land owners, outfitters/guides, and special interest groups. Scoping comments were accepted through February 4, 2000. Many of the issues raised in more than 700 responses received through the public scoping process were outside the scope of the analysis, or no new information or circumstances were presented over what had previously been addressed in the FEIS. However, three issues (native prey base for wolves, livestock depredation, impacts on local government policies and plans) required further analysis and disclosure through an EA. The EA, which was tiered to the FEIS, was prepared and distributed on

February 10, 2000, to more than 700 individuals and organizations. A 30-day public comment period extended through March 15, 2000. It included two public hearings, one each in Catron (Reserve) and Grant (Silver City) counties NM. More than 9000 public comments were received and carefully considered. On March 17, 2000, a Finding of No Significant Impact (FONSI) was signed, in regard to translocating wolves into the secondary zone of the BRWRA. The Reintroduction Project's current approach to wolf translocation is entirely consistent with that administrative record, although it is still constrained (geographically) by the current Final Rule.

103. **Comment:** Before modifying the rule can be considered or signed a Decision Notice by the Regional Director of the USFWS is required to conduct the proper NEPA process, analysis and full disclosure of the potential impacts. The USFWS should mitigate the significant adverse effects of the current wolf introduction program before these modifications are considered. **Response:** After considering all public and cooperator comment during the 5-Year Review, and its own evaluations, AMOC has made recommendations regarding possible changes in the Final Rule or creation of a new Final Rule (see the AMOC Recommendations Component). If USFWS determines the Final Rule should be changed in response to recommendations in the final 5-Year Review and further AMOC actions, or for some other reason, it will develop a formal proposal to do so, and subject that proposal to appropriate rulemaking procedures, including applicable NEPA review.
104. **Comment:** Expanding the recovery area and increasing the number of wolves beyond 100 is unacceptable. **Response:** See C/R 93, 95-99, 101, and 103 regarding AMOC recommendations for changes in the Final Rule.
105. **Comment:** I felt a promise was given to those opposing reintroduction that the area the wolves were allowed would not be expanded. That promise should not be broken. The only way to expand the range would be to obtain consensus approval of those who received the promise. **Response:** AMOC finds no evidence of a promise by any of the agencies cooperating in the Reintroduction Project that the area within which wolves are allowed would never be expanded (or diminished, for that matter). To the contrary, the commitment to reassess all elements of the Reintroduction Project, including current boundaries, in 3-Year and 5-Year Reviews is evident in the administrative record and the FEIS. See also C/R 93 and 95-103 regarding AMOC recommendations for changes in the Final Rule.
106. **Comment:** Change the current rule that requires killing difficult to trap wolves. This is critically endangering genetic diversity of the wolves and having a significant negative impact on their numbers. **Response:** The Final Rule stipulates that, in accordance with the ESA, wolves released to the wild are considered expendable to the Recovery Program. The Final Rule also states that a person may take (kill) a Mexican wolf in self-defense or in the defense of other humans. The Final Rule is not structured, nor is the Reintroduction Project empowered or administered, to force changes in public or private grazing practices to accommodate presence of wolves. Changing the status of wolves in

the BRWRA from “nonessential experimental” to fully endangered would restrict management flexibility. None of the AMOC Lead Agencies support such an action. As for the assertion that the current rule “requires” killing difficult to trap wolves, it does not. The Final Rule and the Reintroduction Project’s SOPs provide flexibility that enables live capture and permanent removal of “problem” wolves. AMOC has determined that active management (including killing and/or other permanent removal of problem wolves) has not endangered genetic diversity of the wild population, nor has it had a significant long-term (lasting) impact on the number of wolves in the wild.

107. **Comment:** Part B, #5 (Administrative): The review does not provide any evidence or rationale for not proceeding with a rule change. **Response:** Using information from the 5-Year Review and comments submitted on the draft review, AMOC has assessed whether the project is operating sufficiently effectively to drive progress toward the Reintroduction Project’s population objective (at least 100 wolves in the BRWRA) under its current regulatory structure. After considering all public and cooperator comment during the 5-Year Review, and its own evaluations, AMOC has made recommendations regarding possible changes in the Final Rule or creation of a new Final Rule (see the AMOC Recommendations Component). USFWS will determine whether and how to proceed with AMOC’s recommendations regarding the Final Rule. If and when proposed rule change language is drafted, it will be released to the public pursuant to the ESA, APA, and NEPA to ensure appropriate opportunities for participation and input by the public. See also C/R 64 and 93-103 regarding possible changes in the Final Rule.
108. **Comment:** Wolves should not be allowed to expand outside the BRWRA; all wolves outside the Recovery Area should be removed. **Response:** See C/R 64 and 93-103. After considering all public and cooperator comment during the 5-Year Review, and its own evaluations, AMOC has made recommendations regarding possible changes in the Final Rule or creation of a new Final Rule (see the AMOC Recommendations Component). AMOC has determined that the Final Rule should be modified to address several issues, including providing for population dispersal outside the current boundaries of the BRWRA (i.e. Apache and Gila National Forests in AZ and NM). Allowing wolves to more freely disperse across the landscape into suitable habitat throughout the MWEPA would speed progress toward the reintroduction goal. Expansion of the MWEPA 10(j) area to the southern borders of NM and AZ could also ensure management flexibility if wolves were to come northward from Mexico, where reintroduction is now underway. However, expansion beyond the current MWEPA would also entail various new costs, both within the Reintroduction Project and to various stakeholders. AMOC will need to address these issues fully during any informal or formal rulemaking processes subsequent to USFWS consideration of the AMOC recommendations.
109. **Comment:** Because *Defenders; et al. v. Secretary, U.S. Department of Interior et al.* 03-1348-JO enjoined and vacated the proposed reclassification rule, there is ongoing uncertainty over the fate of the SWDPS recovery planning process. Therefore, it is imperative the USFWS act now to revise the BRWRA dispersal rule rather than waiting for revisions of national management policy for the wolf. **Response:** H. Dale Hall, the

previous USFWS Region 2 Director, stated in Spring 2005 that in the absence of a Recovery Team, he (and presumably his successor) would look to AMOC and the 5-Year Review for recommendations on any changes to the Final Rule. Accordingly, after considering all public and cooperator comment during the 5-Year Review, and its own evaluations, AMOC has made recommendations regarding possible changes in the Final Rule or creation of a new Final Rule (see the AMOC Recommendations Component). USFWS will determine whether and how to proceed with AMOC's recommendations. If and when proposed rule change language is drafted, it will be released to the public pursuant to the ESA, APA, and NEPA to ensure appropriate opportunities for participation and input by the public. See also C/R 64, 93, 103, and 107 regarding Final Rule changes.

110. **Comment:** We recommend that expansion of the Primary Recovery Area be considered in light of the biological needs of the wolf population. This issue must be analyzed in more depth and should be undertaken by the newly modified Recovery Team. **Response:** See C/R 85, 88, 93, 103, and 107-109.
111. **Comment:** We recommend adjustments to the regulations regarding wolves that stray from the recovery area to allow more flexibility for dispersing wolves. This will be critical to the recovery of the Mexican wolf. If wolves are successfully hunting, breeding, and avoiding humans, they should be allowed to remain outside the recovery area. **Response:** Greater freedom to disperse should lessen management-induced disruption of social bonds to packs and promote territory establishment and stability within and between packs, which in turn could lessen the number of human/wolf conflicts. Allowing wolves to freely disperse across the landscape into suitable habitat, versus attempting to artificially confine their movements to a recovery area with regulatory (versus biological) boundaries, could speed progress toward Reintroduction Project's population goal. As noted earlier, expansion of the current MWEPA 10(j) area would require amendment of the Final Rule. Thus, after considering all public and cooperator comment during the 5-Year Review, and its own evaluations, AMOC has made recommendations regarding possible changes in the Final Rule or creation of a new Final Rule (see the AMOC Recommendations Component). The USFWS will determine whether and how to proceed with AMOC's recommendations. If and when proposed rule change language is drafted, it will be released to the public pursuant to the ESA, APA, and NEPA to ensure appropriate opportunities for participation and input by the public. See also C/R 64, 85, 88, 93, and 107-109.
112. **Comment:** Recommendations for boundary changes and direct releases into NM are irrelevant to the report without the final Recovery Team's recommendation. These recommendations should not have been included in the review questions. **Response:** See C/R 109 regarding the SWDPS Recovery Team's role vs. AMOC's role in recommending boundary changes to the USFWS Region 2 Director.
113. **Comment:** Delay in modifying the no-dispersal rule will impose increasing burdens on project staff by involving them in counter productive management actions toward non-

depredating dispersing wolves; the wolves that would normally form the most valuable component of population recovery. **Response:** See C/R 107-109, and 111. Allowing wolves not causing a management problem outside the current BRWRA to remain there would allow the IFT to concentrate on other management issues (e.g. outreach, nuisance and problem animals, tracking and monitoring, research and investigations). However, the geographic scope of participating agency responsibilities would have to be expanded to address management issues that develop in the outlying areas, and this factor also must be considered in assessing the merits of secondary boundary expansion. In any event, after considering all public and cooperator comment during the 5-Year Review, and its own evaluations, AMOC has made recommendations regarding possible changes in the Final Rule or creation of a new Final Rule (see the AMOC Recommendations Component).

114. **Comment:** We believe the current level of take of wolves authorized and accomplished through the existing rule is unsustainable and violates the provision of Section 10(j)(2)(A) of the ESA requiring that releases of listed species under 10(j) provisions must “further the conservation” of the species. If other recommendations (change rule to allow releases into NM; allow dispersal of wolves outside the BRWRA, decreased removals in response to livestock depredation, co-equal status of wolves and livestock, etc.) cannot be accomplished under a revised nonessential experimental population classification, the rule should be rescinded and Mexican wolves recognized as either “essential experimental” or fully endangered. **Response:** The Final Rule provides for limited allowable legal take of wolves in the wild within the MWEPA. It states that no person, agency, or organization may “take” any wolf in the wild within the MWEPA, except as provided in the rule. Stripping the nonessential experimental status from wolves in the BRWRA would, AMOC believes, severely restrict management options and impede progress toward establishing a viable, self-sustaining population of free-ranging wolves. None of the AMOC Lead Agencies support such an action. See also C/R 106 regarding lack of AMOC agency support for rescinding nonessential, experimental population designation.
115. **Comment:** The nonessential, experimental classification is wrong. They are highly endangered wildlife and deserve the full protection of the ESA. **Response:** AMOC Lead Agencies and Cooperators unanimously believe Mexican wolf reintroduction in AZ and NM is best pursued via nonessential experimental population status (i.e. 10[j] rule), as has been conferred via the existing Final Rule for this Project. Nonessential experimental population rules provide for management flexibility essential to a reintroduction effort such as this one. See also C/R106 and 114, regarding lack of AMOC agency support for rescinding the nonessential experimental population designation.
116. **Comment:** Reintroduce wolves in the sky islands ecosystem and the Grand Canyon ecosystem to increase the population and to restore vital ecological processes. **Response:** See C/R 85-88, 103, and 106-109 regarding AMOC recommendations for possible boundary changes.

117. **Comment:** Expanding the program's recovery zones will have a deleterious effect on livestock producers and may have serious repercussions for human safety. Any expansion should consider the economic impacts and the threats to livestock as well as human safety. **Response:** Expansion of the current MWEPA 10(j) area and/or the current BRWRA boundaries would require amendment of the Final Rule and would include an analysis of economic impacts, in compliance with NEPA. See also C/R 95, 100, and 103 regarding rulemaking and NEPA.
118. **Comment:** Inclusion of WSMR as part of a future recovery area targeted for wolf releases is short sighted and may have a negative impact on the future mission of WSMR and could potentially affect the Base Realignment and Closure process negatively, thus losing billions of dollars that WSMR provides to NM's economy. **Response:** See C/R 91.
119. **Comment:** The draft 5-Year Review does not reveal the reasons why the boundaries have not been lifted. Where is the story that conveys this information? **Response:** The 5-Year Review discusses in detail why a rule change to address the boundary issues has not yet been accomplished. Please refer to sections 2.4 and 2.5 of the Administrative Component of the 5-Year Review. See also C/R 15 and 45.
120. **Comment:** USFWS should adopt the 5-Year Review's recommendations for improving the Mexican wolf program by modifying the current nonessential experimental population rule to allow wolves to colonize suitable habitats throughout the SWDPS. **Response:** See C/R 107-109.
121. **Comment:** The experimental population rule should be revised to allow initial releases of wolves anywhere in the BRWRA, FAIR, and any other Native American or private lands within Mexican wolf historic range where owners have entered into agreements to support wolf recovery. **Response:** WMAT is one of six lead agencies that participate in AMOC. WMAT also has an MOU with the USFWS that allows for management of Mexican wolves on FAIR. Given the unique government to government relationship the Federal government has with Indian tribes, WMAT has certain sovereign rights, and has final jurisdiction on the number and what kind of wolf releases will be allowed on FAIR. In regard to initial releases of wolves on private lands, after considering all public and cooperator comment during the 5-Year Review, and its own evaluations, AMOC has made recommendations regarding possible changes in the Final Rule or creation of a new Final Rule (see the AMOC Recommendations Component). The processes by which those issues are considered will enable AMOC to address the possibility of initial releases of wolves on private lands.
122. **Comment:** Pages 8 – 14, 4 and 5, Administrative: These 2 areas depend too heavily on the results of the SWDPS Recovery Team. This team is trying to encompass a larger area than the BRWRA. The BRWRA had recommendations for change that needs to be addressed now for the benefit of the daily program that is already on the ground. **Response:** See C/R 103 and 107-109.

123. **Comment:** The 1996 FEIS only considered the effects of 100 wolves in the wild. The implication was that this was the target number when all parties knew that there was no way this would be considered a sustainable breeding population. By adopting the 10(j) rule, USFWS sought to eliminate the need to evaluate the future known impacts of having 1,500 or more wolves in their historic range. **Response:** The adequacy of the FEIS has been reaffirmed in various court decisions since it was released.
124. **Comment:** According to USFWS own numbers, there are at least 20 fewer known wolves in the wild than predicted and only because of a policy change allowing multiple re-releases of problem animals. **Response:** Wolf counts in the BRWRA are minimum population counts that represent the number of collared and uncollared wolves observed in the wild. The actual population is probably higher because some individual wolves and packs are not detected, including dispersing wolves without collars. At the end of 2003, the BRWRA minimum population estimate of 50-60 was similar to the FEIS prediction for the sixth year of the Reintroduction Project (55). The final end-of-year minimum population count for 2005 will not be made until December 31, 2005.
125. **Comment:** From 2004 to mid 2005 more wolves have been released and removed due to livestock depredation and other nuisance behaviors than at any other time in the programs history. Hopefully this data will not be ignored simply because it is more beneficial for the program if the 5-Year Review is read in a vacuum. However, as of the end of June, 2005 the collared population consisted of 22 wolves, in nine packs, and five lone wolves. **Response:** Some Mexican wolves will likely be removed for livestock depredations every year. The 5-Year Review covers the period 1998-2003. However, for 1998-2005, the highest rate of collared wolves being removed for livestock depredations occurred in 1999, and the highest rate of collared wolves being removed for nuisance situations occurred in 2000. The 5-Year Review suggests that as fewer wolves are released from captivity to the wild, there may be fewer removals for nuisance issues (current patterns of nuisance removal are consistent with this speculation). Most nuisance issues occur with wolves that are released directly from captivity. See also C/R 124 regarding minimum population counts.
126. **Comment:** According to predictions in the EIS for preferred alternative A, releases of Mexican wolves should have ended in 2002, four years after the program began. They have not ended, but have increased using problem animals. This is indicative that the population cannot hold its own, on its own, in the BRWRA. **Response:** The FEIS predicted it would take five years of initial releases (beginning in 1997), to achieve the reintroduction goal of 100 or more wolves in the wild by 2005. This timeline was largely based on untested assumptions, since there were no Mexican wolves in the wild from which to learn. It serves as a reference point for evaluating progress toward population objectives, but the fact that actual results vary from the predictions is not an indication that the BRWRA population “cannot hold its own, on its own.”
127. **Comment:** Page 41, Paragraph 3 (Technical): The recommendation to create a large experience center is poorly described and most likely unnecessary. If that means placing

wolves somewhere where once again there will be a boundary on their roaming it is inappropriate for all the reasons discussed in the 3 year review and in paragraph 2 of Page 41. The process of removing wolves from the wild is physically and socially dangerous to the wolves. 12 wolves have died as a direct result of capture (either in captivity or during capture): 3 Pipestem pups, 2 other wild-conceived pups infected with Parvovirus by the Pipestem pups, 5 Francisco pups, one wolf run down by aircraft, and F511. Additionally many previously cohesive packs have split upon re-release and later dying or being removed. These incidental effects of an attempt to translocate wolves should be taken into account in both the notion of setting up an experience center and in the notion that translocations are a net benefit to wolves. **Response:** An experience center concept was offered in the draft 5-Year Review as food for thought. Upon further reflection, AMOC has determined that it will be removed from the final 5-Year Review for lack of merit.

128. **Comment:** Trapping for what have been routine activities such as wellness checks or collar refreshment should be minimized or eliminated. The program is attempting to develop a self sustaining wild wolf population – leave these animals alone as much as possible and let them be wild. **Response:** Mexican wolves are not captured in the wild for “wellness” checks. They are captured in the wild to place or replace radio-collars, or for other management purposes. Radio collars allow the IFT to accurately document home ranges, minimum population estimates, dispersals, survival, reproduction, pack formation and a variety of other biological factors. Radio-collars also assist in management (e.g. responses to depredation incidents) and help the IFT identify appropriate individuals for translocation or permanent removal. Without radio-collars, much of the information in the 5-Year Review would not exist, thus constraining efforts to improve management practices and progress toward population objectives. Thus, IFT will continue to trap and collar wolves as necessary for management and monitoring purposes.
129. **Comment:** Allowing a pair of wolves to be released with pups to force them to stay in an area that instinct tells them to leave is one of the biggest mistakes the agency keeps making. It is stressful to the parents, the pups seldom have good survival rates and it is contributing to livestock depredation in an effort to feed young. Allowing natural adaptation and development of territory is preferable prior to allowing breeding. **Response:** Release sites are chosen based on criteria that represent the biological needs of the wolves, but which also consider the potential for conflict with other factors (e.g. human activities). Wolves are more successful at establishing a territory and raising pups when they are released with pups in an area of good prey density. In some situations, wolves have quickly adapted to the wild and have killed native prey. AMOC has limited information on pup survival because pups are generally too small to collar. In addition, AMOC has no information indicating pups influence adults to depredate on livestock, or that a release or translocation is more or less stressful on the parents depending on the timing of release. Further, to maximize chances for successful transition to the wild, supplemental feeding is employed until the wolves are known to kill prey, or the wolves leave the area following a release or translocation (SOP 6.0: Wolf Translocations).

130. **Comment:** The wolves are being micro-managed and overly handled. **Response:** Intensive management of Mexican wolves is an inevitable consequence of the reintroduction process on the BRWRA, and is unlikely to abate in the near term.
131. **Comment:** The report fails to acknowledge the risks of death, injury, and pack disruption due to translocations. Sound scientific evidence strongly contradicts the idea that translocated wolves are more likely to reproduce/be more successful. **Response:** AMOC is unaware of the sound scientific evidence that supposedly contradicts this finding. Please provide appropriate references if you have them. Removal events have rarely resulted in death or injury to animals, although some level of injury or loss is inevitable. Further, in the 5-Year Review draft analysis, each wolf was considered a separate animal that could succeed, fail, or end up missing. Ultimately, young wolves generally must disperse from the pack and find a mate to be successful. Whether translocation events cause higher dispersal rates (e.g. pack disruption) relative to natural processes is unknown. AMOC considered translocation events and removal events separately. Removal, death, or disappearance of a wolf was the end of the previous translocation/initial release that put that animal into the wild. If the wolf had produced pups in the wild (e.g. contributed to recovery) prior to its removal or death, then the preceding translocation or initial release was considered successful. Wolves that were fate unknown or alive at the end of the study period, but which had not bred in the wild were excluded from analysis. Through these methods, the data presented in the 5-Year Review indicate translocated wolves are more successful per wolf relative to initial release of captive wolves. As suggested in the 5-Year Review, captive wolves remain a viable option to start a population. However, wolves with previous wild experience (e.g. translocations) generally have more success, so the transition to reliance on translocations and natural (wild) population growth should occur as soon as feasible.
132. **Comment:** No more releases should be done until better population estimate techniques are developed and you have an accurate population estimate. (#1) Technical Recondition **Response:** Several methods exist for determining population indices and estimates of the number of wolves in the wild. Each method has its own strengths and weaknesses. The method used in the BRWRA Reintroduction Project to develop minimum population counts is territory mapping (Kunkel et al. 2005). The primary drawback to this method is that it is costly and requires intensive trapping and radio monitoring of individual animals. However, in the short term, information gained using this method is important because of the small number of wolves and the need for accurate estimates of population decline or increase (Kunkel et al. 2005). This data is also considered the baseline from which other population estimates are derived and compared. AMOC and the IFT are constantly looking for ways to refine and improve the efficiency and effectiveness of population surveys. For example, use of a helicopter and spotter plane with the current method might allow for more accurate counts of pack numbers and composition, and would also allow the Project to more efficiently capture and collar wolves. One other recently developed method suggests that DNA analysis of scat could be used for mark-recapture methodology of population estimates and/or minimum count estimates (Kohn et al. 1999). However, this method requires equal defecation rates among sex and age

classes, an assumption that may not be true for wolves (Lucchini et al. 2002), and expensive lab analyses. Nevertheless, DNA analysis of scats for population estimates is being discussed and considered for the Blue Range Reintroduction Project and might ultimately (long-term) provide accurate population estimates with small confidence intervals (Kohn et al. 1999).

133. **Comment:** On Page 42, management implications – technical: “Further, before initial release, wolves would likely benefit from a large experience in the wild, protected area similar to those used for real wolves.” How and where would this “large experience in the wild” be accomplished? Suggest more detail. **Response:** See C/R 127.
134. **Comment:** USFWS should adopt the 5-Year Review’s recommendations for improving the Mexican wolf program by translocating wolves with “wild experience” after their first removal. **Response:** SOP 6.0: Wolf Translocations and SOP 13.0: Control of Mexican Wolves already allow this to occur.
135. **Comment:** Just because there was agreement by the counties to reassess and refine the boundaries did not mean we were in agreement with initial releases into the Gila. Similarly, the selection of better release/management areas within the recovery zone in AZ and NM does not mean we support initial releases into NM. On the contrary, we are adamantly opposed. Following the logic of this review, wolves released directly will result in higher depredations. **Response:** AMOC knows that counties within the NM portion of the BRWRA do not support direct releases into the Gila National Forest.
136. **Comment:** Conduct more frequent releases to increase the wild population of genetically under-represented lines. A genetically diverse wild population is critical to the long term survival of this species. **Response:** AMOC is aware of the issues and concerns, be they real or perceived, regarding genetic health of the free-ranging Mexican wolf population. Sampling based on the collared free-ranging Mexican wolf population suggests the current known representations in the wild for the under-represented Ghost Ranch and Aragon lineages (see also C/R 174 and 185) are 9.55% and 10.00%, respectively. The reality, however, is that we do not know the full genetic composition of the wild population. Releases and subsequent wild pairings and re-pairings have resulted in un-collared wolves breeding and producing offspring for which genetic testing to verify lineage representation has not been accomplished. Genetic experts have indicated that, ideally, the genetic composition of the wild population should mimic that of the captive population, which currently for the Ghost Ranch and Aragon lineages is 14.63% and 12.43%, respectively. AMOC can help facilitate this by carefully considering which wolves to release in the future. For example, most, if not all, the releases and translocations accomplished in recent years have been done to infuse the wild population with Ghost Ranch and Aragon lineage wolves, which we believe are underrepresented in the free-ranging population. However, it is important to note that even if release of wolves from the Ghost Ranch and Aragon lineages continued, the reality is that much of the genetic interplay is beyond the control of the agencies managing this effort, and will

depend more on which wolves survive in the wild to successfully breed and in turn, what successive generations do.

137. **Comment:** Re-released wolves are said to be adopting better to their new circumstances yet it is well known that agency personnel are concentrated in AZ and wolves in NM are seldom monitored much after translocation. **Response:** Wolves that are translocated to large areas of designated wilderness and outside of active livestock allotments may require less intensive monitoring than wolves in other locations. IFT members can cross State boundaries as necessary to best implement wolf monitoring and management across the BRWRA, per the interagency MOU for the Reintroduction Project. AMOC knows there have not been enough field staff in NM to meet all the public desires regarding wolf reintroduction there. To address this, NMDGF is adding to its field staff by hiring a second, full-time position dedicated to wolf reintroduction matters. The new NMDGF employee will report for duty early in 2006. Also, after considering all public and cooperator comment during the 5-Year Review, and its own evaluations, AMOC has made recommendations regarding possible further expansion of the IFT on an agency-specific basis (see the AMOC Recommendations Component).
138. **Comment:** The fact that mortality numbers are lower than predicted in the FEIS should be no great source of comfort. The failure rate of 62% is higher than the sustainable rate of mortality in all studies cited in Fuller et al. (2003) except one. In that one instance, the ability of the population to sustain itself is attributed to the existence of source populations in surrounding areas. **Response:** As the Reintroduction Project moves forward, we expect removal rates for causes other than boundaries to stabilize or decrease. Until and unless a Final Rule change occurs, we will (and legally must) continue to remove wolves that cross the BRWRA boundary. In any event, the “Fuller exception” is similar to the BRWRA situation; i.e. the BRWRA “source population” is the captive population (which can be maintained indefinitely).
139. **Comment:** The Mexican wolf should be delisted from the ESA at a population of 100 animals or less in the wild. **Response:** Delisting (recovery) thresholds are not within the scope of the 5-Year Review.
140. **Comment:** Pages 19-20, 54, and elsewhere (Technical): The method for estimating release success is flawed and thus comes to the mistaken conclusion that translocations (and by implication, the capture of wild animals) offer a better chance for success than first time releases. Such a conclusion in turn becomes a justification to capture wolves from the wild because the implication is that such captures coupled with subsequent releases actually boost the chances of these animals becoming successful. This is not the case. Success would be better measured by number of pups successfully raised and would properly account for the Pipestem and Francisco pups largely destroyed as a result of being captured and thus count these packs as less successful as a result. Proximity to established packs should be an analysis factor because of its clear causative relation to the fatal intraspecific strife that led to the demise of the Lupine Pack. The existing analysis tallies these 9 unsuccessful animals as falling within the released from captivity category

thus skewing the analysis due to a factor that is only incidentally (because animals released from captivity must be released in AZ according to the rule) germane to the circumstances of their unhappy fates. The fact that most were pups would skew the analysis to over-count age of animals as a factor in their loss. Because 9 animals is relatively large in the small sample size available, such misunderstandings of cause and effect contribute to a significant misreading of what factors are actually affecting release success. **Response:** Periodic capture and translocation of “experienced,” but otherwise problem-free, wolves (see definition of “nuisance” and “problem” wolves in SOP 13.0: Control of Mexican Wolves) is not considered a viable management approach at this stage of the Reintroduction Project, but that is subject to constant re-evaluation. That said, translocations of experienced wolves, in general, have been more successful than initial releases. In terms of the referenced litters, both the Francisco (unknown cause) and Pipestem pups (parvovirus) died in captivity. It is unknown if these litters would have lived or died if they had remained in or been returned to the wild. In regard to the Lupine Pack, the alpha male died from asphyxiation due to a snake bite and subsequent neck swelling around the radiocollar (this animal was also bitten in the head, presumably by other members of the pack, however, this was not the cause of death). The four yearlings in this pack had begun dispersing prior to death of the alpha male and interaction with other wolves. One yearling was removed outside the boundary, two died from gunshot, and one was hit by a car. The alpha female remained localized in the area of the release late in the summer of 2001 and ultimately was killed by gunshot. The bottom line is that loss of the Lupine Pack was not caused by proximity to other wolves. See also C/R 131 on translocations.

141. **Comment:** Page 30-31 (Technical): This discussion should be modified to take into account the other variables we requested be analyzed. The review concludes that the greater success of wolf reintroduction in Yellowstone and Idaho may be related to those wolves’ wild provenance but the low density of livestock and lack of a boundary rule would also account for this difference which is another reason these factors should be analyzed in the final version of the review. **Response:** The referenced parts of the 5-Year Review Technical Component will be reassessed in light of this Comment, and appropriate changes will be made.
142. **Comment:** Page 5, Paragraph 2 (Technical): It does not suffice to state that the population is on track with FEIS predictions simply because population numbers were on track by the fifth year. These numbers reflect continued releases after such releases were predicted to no longer be necessary and releases of greater numbers of wolves than predicted. The more germane benchmark is the number of breeding pairs predicted to be ten, because that number reflects the progress toward a self-sustaining population. Please state in this section how many breeding pairs were actually present. **Response:** The referenced section of the Technical Component of the 5-Year Review reflects the current literature regarding Mexican wolves. The subject sentence has been changed to read: “In 2003, the IFT estimated the number of Mexican wolves in the BRWRA to be approximately 50 to 60 animals, indicating population numbers were on track with FEIS predictions in regard to this population parameter.” Breeding pairs, and the fact they lag

behind FEIS projections, are discussed within the Results section of the Technical Component of the 5-Year Review (see Figure 3a). Breeding pairs are a strictly defined term of an adult male and an adult female that have produced two pups that survived until December 31 of the year their birth. Thus, number of breeding pairs is not a more germane benchmark than population counts, as population counts inherently include more factors such as reproduction, releases, translocations, mortality, recruitment, removals, and missing wolves.

143. **Comment:** Page 40, Paragraph 3 (Technical): The goals and projections described in the EIS have been selectively described here, and improperly omit the key projection of number of breeding pairs. **Response:** See C/R 142.
144. **Comment:** According to the projections for the first five years there should have been documented 45 wolves born in the fifth year. No one knows how many were born in the fifth or previous years. **Response:** The IFT conducts annual population counts, including the number of pups born to known (e.g. radio-collared) packs. Similar to our minimum population estimate, these numbers are also considered minimums. Wildlife population estimates, by definition, do not produce the exact number of animals on the ground. They are merely estimates, and for wolves, pups are among the individuals most likely to be missed, especially pups that do not survive to emerge from the den. See C/R 132.
145. **Comment:** Capturing and collaring wild-born wolves has not been very successful. How many pups have actually been collared? Why isn't WS used for this? **Response:** Capture and collaring wild-born wolves has been very successful, however, success is proportional to the amount of time and effort that can be expended, and is also a function of the number of wild-born wolves within the population. A total of 16 subadult (less than two years old) wild-born wolves were captured and collared from 2000-2004 (pups younger than 4-5 months old are too small to be fitted with a collar). WS has the primary lead in wolf control responses (SOP 13.0: Control of Mexican Wolves). However, WS participates in other forms of capture on an as needed and available basis such as detailed in SOP 15.0: Helicopter Capture and Aerial Gunning, and in SOP 21.0: Handling, Immobilizing, and Processing Live Mexican Wolves. See also C/R 19, 170, and 282 regarding funding and staffing levels for WS.
146. **Comment:** The Lupine alpha male did not just die from snakebite but from a combination of snakebite, intraspecific strife, and asphyxiation by radio collar; it is not accurate to depict the only cause of death that was not management caused and omit the others. Similarly, it should be explicitly noted that the necropsy report of the wild pups that succumbed to disease after their capture indicated the role of capture in their deaths. Please discuss the role that being captured played in those pup deaths. **Response:** The Lupine male was bitten by a rattlesnake. As a consequence of the bite, his neck became swollen, which likely led to asphyxiation from the radiocollar. Canine bite marks on his head were likely caused by other pack members responding to his aberrant behavior. This description of the chain events leading to the Lupine male's death will be reflected in the 5-Year Review. The necropsy reports for the Pipestem and Gavilan pups did not indicate

- capture having a role in their deaths. A project veterinarian speculated the Pipestem pups may have been recovering from parvovirus when captured, and recrudescence may have occurred from the stress of trapping. Evidence for this was inconclusive, however. See C/R 140.
147. **Comment:** The data showing translocated wolves are more successful need to be reworked to include the Francisco pups that died in captivity. **Response:** See C/R 131 and 140.
148. **Comment:** The absence of any potential source population compounds the lower pup productivity. **Response:** Some areas within the BRWRA act as sources while others act as sinks, as is presented in the Technical Component of the 5-Year Review. The captive population is our primary source population. See C/R 138 regarding source populations.
149. **Comment:** Delaying a rule change any longer is a serious threat to the genetic diversity of the wild population and to the ultimate success of recovery due to the lack of Ghost Ranch and Aragon wolves in the population and the inability to do initial releases into NM. This is compounded more since much of the area in AZ where releases can occur is already occupied and no more releases can occur there to bolster the genetic diversity. **Response:** See C/R 136.
150. **Comment:** Page 9, Paragraph 3 (Technical): The method for estimating success of wolf releases is flawed in that it takes a very small sample size, posits success as an either/or variable based on subsequent reproduction, and excludes some factors that are far more important than the ones chosen. Rather success should be measured by the total number of successfully raised pups which would indicate more than just mere parturition but also the crucial factor of the pups' ultimate survival as well as how many litters were produced. **Response:** See C/R 131 and 140.
151. **Comment:** For the past two years, there has been very little effort to follow the Final Rule with respect to upholding their obligations to stakeholders and keeping a handle on the spread of their wolves. **Response:** In 2003, the six Lead Agencies and various Cooperators developed and signed an MOU creating AMOC and AMWG, in response to a variety of agency and public concerns about the Blue Range Reintroduction Project. During the past two years, AMOC has held a wide variety of public meetings on Project management practices, economic impacts, SOPs, a moratorium on initial wolf releases, and the 5-Year Review. The Project has continually been adjusted over that period to address management concerns, whether the concerns originated from the public or AMOC agencies. See C/R 290 regarding AMOC and IFT efforts to "keep a handle on the spread of their wolves."
152. **Comment:** Policy changes allowing captive born wolves to be released into NM would be in direct conflict with the Final Rule. **Response:** No policy changes have been made that are in conflict with the Final Rule. The USFWS Region 2 Director interpreted the Final Rule to mean that pups conceived in the wild and born in captivity are wild by

definition, thus eligible for release to the wild in the primary and secondary recovery zones. Conversely, pups conceived and born in captivity are captive-reared and ineligible for release in the secondary recovery zone.

#### **D. 3-Year Review**

153. **Comment:** Recommendations made in the 3-Year Review should be implemented. **Response:** See C/R 15 and 45.
154. **Comment:** No data were made available to the scientific team for the 3 year review. This resulted in a 3-man scientific team making recommendations of a political nature. **Response:** All available data were provided to the team that performed the technical component of the 3-Year Review for USFWS. As for opinions that recommendations in the team's report (i.e. the Paquet report) are or are not political, the report speaks for itself. See C/R 12.
155. **Comment:** The dissenting opinion of the only livestock owner in the "Livestock-Animal Conflict Working Group" of the 3 year review workshop was ignored. This is indicative of the USFWS bias against livestock interests. **Response:** See C/R 15 and 45. Lead Agencies and Cooperators in the Mexican wolf Reintroduction Project are not biased against livestock interests. Multiple use of public land, including ranching and livestock grazing, is a legal and legitimate activity on Federally managed USFS lands that make up the BRWRA. AMOC's role is to manage the Mexican wolf project to help further recovery of the Mexican wolf, and not to make judgments regarding the appropriateness of grazing or other multiple-use activities on public lands. The Reintroduction Project is authorized under a Final Rule that reflects a commitment to integrate wolf reintroduction and recovery into multiple-uses of public lands and to minimize conflicts on private lands. The Final Rule is not structured, nor is the Reintroduction Project empowered or administered, to force changes in public or private grazing practices to accommodate presence of wolves. Thus, the 5-Year Review and ongoing adaptive management of the Project will continue to focus on finding and implementing incentives for voluntary actions by ranchers and other stakeholders that would help accommodate presence of wolves by reducing conflicts such as livestock depredation.
156. **Comment:** The stakeholder recommendations concerning the 3-Year Review have been ignored. **Response:** See C/R 15 and 45.
157. **Comment:** Direct WS to immediately implement stakeholder recommendations from the 3-Year Review, not just those made by the agency groups. **Response:** After considering all public and cooperator comment during the 5-Year Review, the 3-Year Review and its recommendations, and its own evaluations, AMOC has made recommendations regarding possible changes in the Final Rule or creation of a new Final Rule (see the AMOC Recommendations Component). See also C/R 15 and 45.

#### **E. 5-Year Review**

158. **Comment:** From the 3-Year Review to the 5-Year Review, radio-collared wolves have decreased from 27 to only 22. This shows the lack of progress in the reintroduction and recovery of Mexican wolves and thus the need for changes. **Response:** Even though there were fewer collars at the end of the 5-Year Review (2003), there were more wolves free-ranging in the BRWRA. In the first few years of the reintroduction effort, many of the wolves were collared because they were all released with radio-collars. The IFT strives to maintain one or more collars in each pack to monitor overall trends in the population. However, as pups are born in the wild, and as collars fail, the percentage of collared wolves in the wild population should be expected to decrease. Thus, we will likely never have as high a percentage of collared wolves in the BRWRA population as there was at the end of the 3-Year Review. Regardless, collared animals alone are not as good an indicator of progress of a reintroduction effort as total numbers. See SOP 21.0: Handling, Immobilizing, and Processing Live Mexican Wolves for additional information on collaring wolves.
159. **Comment:** Have all the proper EIS and other requirements been done previously and for the new 5 year program in current planning stage? **Response:** All NEPA- and ESA-based requirements for proposing Mexican wolf reintroduction in the BRWRA were completed before reintroduction began in late January 1998. They are on file with the USFWS. All Reintroduction Project activities since then that have required NEPA compliance have been appropriately documented, and the documentation is on file with the appropriate Federal, State, or Tribal agency (e.g. see C/R 102). The 5-Year Review itself does not require NEPA documentation, but recommendations from the Review might trigger NEPA process before final decisions could be made. If NEPA obligations do arise, AMOC will comply with them to the letter and spirit of the law and any applicable rules and regulations (see also C/R 95, 100, 103, and 117-188).
160. **Comment:** Since the 5-Year Review lacks its Socioeconomic Component, it was premature to submit the draft report for comment. We request you publish an updated 5-Year Review draft for public comment that includes a comprehensive Socioeconomic Component. **Response:** The Socioeconomic aspects of the 5-Year Review were available during the latter portion of the extended 5-Year Review period (i.e. April 26 through July 31, 2005).
161. **Comment:** With the lack of adequate monitoring personnel, we question whether issues 3, 4, 6, 8, or 9 of the Technical Evaluation can be adequately addressed. Especially disconcerting are the admitted lapses in information surrounding wolf reproduction and the number and locations of packs without collars. **Response:** The questions the Comment refers to are: (3) Is wolf mortality substantially higher than projected in the FEIS?; (4) Is population growth substantially lower than projected in the FEIS?; (6) Is the livestock depredation control program adequate?; (8) Have any sinks been identified?; and (9) Have any sources of mortality been higher than expected? AMOC believes the methods and data within the Technical Component of the 5-Year Review are sufficient to answer these questions.

162. **Comment:** NMDA requests the recovery goals be restated to include a clearly defined number of reproducing packs based on actual habitat-carrying capacity and suggests recovery area maps be redrawn to include only areas of suitable habitat having both adequate prey and minimal impact to livestock and human populations. **Response:** Comments pertaining to the Recovery Team and development of recovery goals are beyond the scope of the 5-Year Review. See C/R 64 regarding status of the Team. Regarding the suggestion about recovery area (i.e. BRWRA) mapping, after considering all public and cooperator comment during the 5-Year Review, and its own evaluations, AMOC has made recommendations regarding possible changes in the Final Rule or creation of a new Final Rule (see the AMOC Recommendations Component).
163. **Comment:** NMDA views the Administrative Component of the review as currently written as unbalanced and not representative of stakeholder concerns regarding the possibilities for resolution of the issues. **Response:** AMOC is unable to respond to this Comment, because NMDA did not identify why it perceives the Administrative Component to be “unbalanced and not representative of stakeholder concerns regarding the possibilities for resolution of the issues.” We wish these concerns had emerged while AMOC was drafting the 5-Year Review.
164. **Comment:** Page 1, Paragraph 3, first and second sentence (Technical): This abbreviated statement of range does not suffice because it misidentifies the range of *Canis lupus baileyi* as including that of *C. l. mogollensis* and *C. l. monstrabilis* – implying that these are one and the same subspecies despite the fact they had been conflated just for the purpose of providing additional areas for potential reintroduction. (The Commenter goes on to provide a detailed historic range description). **Response:** When the FEIS for what has become the Blue Range Reintroduction Project was written, the Mexican wolf subspecies was thought (based on the best available science at that time) to have historically occurred in southern NM, southern AZ, western Texas, and northern Mexico (see Bogan and Mehlhop 1983, Brown 1983, Nowak 1995). However, a recent study of the molecular genetics of wolves (Leonard et al. 2005), based on new techniques that were just emerging in the mid 1990s, supports a larger historical distribution of Mexican wolves (or zone of intergradation with other wolf subspecies) than was described in the FEIS or the draft 5-Year Review. *Canis lupus mogollensis* and *C. l. monstrabilis* have not generally been recognized as valid gray wolf subspecies since prior to 1983, but rather have been grouped with *C. l. baileyi* or *C. l. nubilus* (see Nowak 1983, Bogan and Mehlhop 1983, Brewster and Fritts 1995, Nowak 1995, Garcia-Moreno et al. 1996, Nowak 2003). Regardless, the evolving description of historical distribution does not reflect conflation “just for the purpose of providing additional areas for potential reintroduction.” Rather, it reflects changes in the best available science over time, changes that continually force reconsideration of approaches to recovery and reintroduction.
165. **Comment:** Ethically the program and its review are weak. To improve its ethical foundations, the program should: 1) minimize the use of lethal control and intensive

- intervention; 2) maximize the use of proactive nonlethal measures of conflict management; 3) support the “living with predators” program of wildlife and animal protection non-profits; and 4) add an ethics component to compliment the technical, administrative, and socioeconomic reports. **Response:** AMOC does not consider the Reintroduction Project or the 5-Year Review to be “ethically weak.” AMOC has assiduously pursued objective, balanced review of the relevant issues. If shortfalls in results have occurred, and this Comment provided no evidence they have, they are not due to lack of ethics. In any case, emphasizing one management construct over another should be a result of assessing the strengths (benefits) and weaknesses (costs) of each and determining which best meets the given situation (need). Lethal and nonlethal mechanisms of wolf control are advocated and applied on that basis, i.e. appropriateness and effectiveness, not because one is arbitrarily deemed morally superior to the other. “Living with predators” is a concept that should indeed be considered by all humans occupying landscapes on which predators occur, but ascribing some sort of moral high ground to it would be inappropriate for a government entity such as AMOC.
166. **Comment:** Page 100, Item 60 (Technical): Note that much documentation is missing. **Response:** All livestock depredation investigations that were reported to the IFT and which resulted in a finding of confirmed, probable, or possible livestock depredation were included in the 5-Year Review analysis. No such depredations were excluded from the analysis, and no data were withheld.
167. **Comment:** The recovery range as defined in the FEIS is misidentified as adequate habitat for 100 wolves, in reality it contains areas that are populated by landowners, in-holders and small businesses and has only about 1/3 the land habitat as is shown in the EIS. **Response:** The Blue Range was chosen for wolf reintroduction because it contains habitat suitable for establishing a population of at least 100 Mexican wolves (see Johnson et al. 1992, USFWS 1993, USFWS 1996, and C/R 359). The BRWRA consists of 96% public land (USFS), approximately 4% private land, and small amounts of State and National Park Service land (USFWS 1996). However, most of the areas surrounding the BRWRA consist of a mixture of private land, State land, BLM land, and 2 Native American Reservations.
168. **Comment:** 5-Year Review report indicates only 21 wolf mortalities since inception of reintroduction. This is misleading, add to that the number of pups that died of parvovirus in 1999 in the wild, pups that had to be recaptured but died in captivity anyway, and pup mortality from other causes, the number is much higher. The FEIS records that the program began in 1997, however, releases began in 1998 so the equivalent prediction for the 5-Year Review was 9 expected mortalities by the 5 year end. While 21 is much more than 9, USFWS has ignored known pup mortality to keep their numbers in line with the FEIS predictions. **Response:** The FEIS predicted that in 2003 alone, 9 wolves would be removed for control and that 21 would die, disappear, leave, or be removed for reasons other than control. However, the cumulative number of removals for control and death predicted through 2003 in the FEIS are 27 and 67 wolves, respectively. The 5-Year Review describes the mortalities that were documented in the wild. Thus, similar to other

numbers (e.g. cattle depredation, population estimates, and pup production), mortalities represent a minimum estimate of what actually occurred. Survival rates are best assessed based on information from individually radiocollared wolves. Regardless, known pup mortality has not been ignored for any reason; all known mortalities were incorporated into the data analyzed for the 5-Year Review.

169. **Comment:** The report is only supposed to cover through 2003 but the report refers to incidents, studies, etc. occurring in 2004 and “currently.” **Response:** The 5-Year Review analysis covered all data for 1998 through 2003. In addition, as appropriate and possible, the document incorporated additional information into discussion passages in order to be as forthcoming as possible, without constantly reanalyzing the entire data set as new information became available. AMOC regrets if this has caused any inconvenience or confusion among the readers.
170. **Comment:** Page 2, A.2, Administrative: Agency funds do not include WS costs for the program over the seven year period listed in the table. Their cost is important to the overall review. **Response:** The funding table will be corrected in the final 5-Year Review. Up to FY 2004, all funding that was provided to WS is included as part of the USFWS funding. FY 2003 was the last year the USFWS provided funding to WS. Since FY 2003, Congress has provided annual funding of \$150,000 to WS for wolf depredation work in AZ and NM. See also C/R 19 and 282 regarding WS funding.
171. **Comment:** The draft 5-Year Review went out to several environmental NGOs before being made available to the public. **Response:** The draft 5-Year Review was submitted for release via AGFD and USFWS website distribution in December 2004. At the same time, electronic copies were provided to all members of the SWDPS Recovery Team, which included Stakeholders from various interest groups, including conservation, environmental, guide and outfitter, livestock industry, and other organizations, as well as Federal, State, and Tribal government agencies. While the documents were being loaded on the AGFD and USFWS websites, individual hard copies were provided to any member of the public who requested one via email, postal mail, telephone, and/or fax. Hard copies were also provided to the public at AMWG public meetings throughout the January-July 2005 comment period. All sectors of the public thus had equal access to the document, at the same time. No advance copies were provided to any entity, except the Technical Sub-Group of the Recovery Team for informal peer review (see C/R 6).

## **F. Wolf Biology**

172. **Comment:** Pen-raised wolves will have fewer pups not because of inadequate prey species but rather their inability to hunt until they learn. **Response:** AMOC knows of no scientific data supporting this contention. However, this issue is discussed within the 5-Year Review.
173. **Comment:** Page 17, Technical: To compare this rugged area to other wolf areas in the USA does not make sense. Is there documentation determining cause of death in animals

less than 11% like it is here? **Response:** Other areas where wolves occur (e.g. the Northern Rockies, in particular Idaho) are at least as rugged and perhaps more remote than the BRWRA. WS told the Commenter in the late 1990s that they could determine cause of death for livestock (i.e. carcasses, missing animals) in her area (eastern AZ) less than 11% of the time. The data on which that estimate was based, and the derivation of the estimate itself, are unknown. However, as of December 12, 2005, WS had investigated 183 reported incidents involving livestock and dogs in and around the BRWRA. Of these, WS verified 86 (47%) as confirmed or probable wolf depredations. An additional 33 (18%) were classified as possible wolf depredations, and 38 (21%) were attributed to other causes of death (e.g. predators other than wolves, accidents, plant poisoning). Only 26 (14%) of the 183 documented WS depredation incident investigations have been classified as unknown. Similarly, Idaho WS reports that about 40 to 50% of the livestock carcasses reported to them as possible depredations are found, through WS investigation, to be confirmed or probable wolf depredations (M. Collinge, personal communication, December 12, 2005).

174. **Comment:** Mexican wolves are not endangered species. They were trapped in Canada and hauled here and are being called Mexican wolves. **Response:** The Mexican wolf was listed as an endangered subspecies in 1976 (41 FR 17736). In 1978, the wolf species in North America south of Canada was listed as endangered, except in Minnesota where it was listed as threatened (43 FR 9607). This listing of the species as a whole continued to recognize valid biological subspecies for the purposes of research and conservation (43 FR 9610). Further, no wolves have been trapped in Canada, or elsewhere north of AZ-NM, and released in or translocated to the BRWRA. The entire BRWRA wild population is purely of Mexican wolf origin.
175. **Comment:** Captive raised Mexican wolves are more accustomed to humans and less apt to avoid human smells and sounds and are more likely to attack people. **Response:** Captive propagation and management of Mexican wolves genetically, physically, and behaviorally suitable for release to the wild is essential to successful reintroduction. One of the primary characteristics for selecting Mexican wolves for release is avoidance and fear of humans. Potential release wolves must not be socialized or habituated to humans, so they are not likely to be attracted to people or human establishments once released. Therefore, the Mexican wolves selected for reintroduction are managed with minimal exposure to humans, in an environment that fosters and maintains natural wolf behaviors. Although wolf attacks on humans have occurred in North America, they are extremely rare (see McNay 2002a and 2002b for a comprehensive summary; see Linnell et al. 2002 for comparative information world-wide). Wolves, like other animals, occasionally develop some level of habituation to humans and human activity, but observation of wolves in proximity to humans does not mean that wolves are likely to attack. The vast majority of wolf attacks in North America have resulted from situations involving rabid wolves, wolves habituated to humans (such as being fed by humans at campgrounds or near settlements), or provoked wolves (e.g. wolves that were being attacked themselves), and the attacks on humans were incidental to the wolves' attempts to escape (see McNay

2002a and 2002b). However, there are no documented accounts in North America of free-ranging wolves taking human lives (McNay 2002a and 2002b).

176. **Comment:** What scientific evidence exists in support of the USFWS claim that there are no wild Mexican wolves existing or traveling through the BRWRA or other parts of AZ and NM? **Response:** In the late 1980s and through the 1990s, prior to the March 1998 release of Mexican wolves in the BRWRA, surveys were conducted to find wild wolves. Sightings were also investigated, where details warranted follow up. However, no Mexican wolves were detected in the wild anywhere in AZ, NM, or in Mexico in the USA-Mexico borderlands. Perhaps the best evidence that wolves were not in the wild here prior to reintroduction is the fact that genetic analysis has confirmed that every wolf captured in the BRWRA since releases began in 1998 is a reintroduced wolf or progeny thereof.
177. **Comment:** Conclusive proven scientific evidence that the Mexican wolf ever existed as a native species in NM beyond a line farther than Hatch NM. It migrated northward as a result of introduced livestock as a prey source. **Response:** See C/R 164.
178. **Comment:** Pup production in the wild is less than half that predicted in the EIS. **Response:** The 5-Year Review discussion of small litter sizes includes three different hypotheses for observed small litter size: 1) There is a strong correlation between ungulate biomass available for wolves (Fuller et al. 2003); 2) pack size and pup production are the result of historical adaptation to the environment; and 3) wolves released from captivity may be initially less capable of exploiting available prey and thus likely to have fewer pups when counts are conducted. The 5-Year Review reported the average litter size for Mexican wolves in the wild is 2.1, but also recognizes that more pups may be born than are observed. Female wolves captured in the wild and returned to captivity while pregnant or shortly after whelping had a mean litter size of 4.6 (n = 6), supporting the notion that more pups are born than are observed in the wild. Thus far, the captive community has not observed any negative effects on litter size due to inbreeding depression, and the same is assumed for the wild population.
179. **Comment:** The number of un-collared, unknown wolves indicates successful breeding in the wild but no one knows if these animals documented as unknown are Mexican wolves. **Response:** By definition, the genetic history of an unknown wolf cannot be known. The potential for hybridization of wolves with dogs has always been recognized, as described in the Final Rule. However, blood is drawn from every wild wolf captured, to determine its heritage. Every wild wolf captured thus far has been determined to be a pure Mexican wolf (see also C/R 176), except two litters of pups that were born to female Mexican wolves that bred with male dogs. Both hybrid litters were humanely euthanized before any of the offspring could reproduce in the wild and possibly impact the free-ranging population's genetics. Both hybrid litter cases involved a female Mexican wolf in the wild breeding with a male dog. The first female was wild born and the second female was captive born. The first incident involved a female that had been traveling with a male wolf. The male might have functioned as a surrogate father to the female prior to her

- sexual maturity. There is some speculation that the nature of their relationship may have prevented a reproductive pair bond. The second incident involved a lone female that bred with a feral dog. Aside from these two hybrid litters, there is no evidence to date that suggest hybridization with dogs or any other canids is occurring in the free-ranging Mexican wolf population. See also C/R 73, 179, 187-189, 192-193, and 197.
180. **Comment:** Please provide an accurate account as to the exact number of wolves currently in the wild. **Response:** The minimum number of wolves documented in the wild at the end of 2004 was 44 (see C/R 132). Consistent with the Final Rule, a definitive updated count will not be made until December 31, 2005.
181. **Comment:** I object to the justification of the program as one of a geographically distinct population. Wolves of the Southwest historically were not separate from those of the Rocky Mountain States as there is no barrier to their mingling. **Response:** The Mexican wolf reintroduction effort has been tested in court, and all court decisions thus far have reaffirmed its validity in terms of compliance with applicable laws and administrative procedures. The biological concept of species embraces genetic exchange between and among subspecies when geographic isolation does not preclude it. Although the population of Mexican wolves in the BRWRA is now geographically separated from all other extant wolf populations, historically mixing with other populations certainly occurred. Even so, Mexican wolves are genetically distinct (overall) from other subspecies of wolves, i.e. unique alleles (genes) occur within the current population of Mexican wolves, just as there are shared alleles showing common historical ancestry with other populations or subspecies (Leonard et al. 2005). The Reintroduction Project is not linked to the validity of the USFWS policy on DPSs. See also C/R 64 on the SWDPS and 164 on the evolving understanding of Mexican wolf historical distribution.
182. **Comment:** Just as the USDA predator project and others have demonstrated, the haphazard removal of coyotes (Andelt 1985; Lindsey 1987) results in increased sightings and depredations as the population again tries to settle. Allowing wolves that do no harm to range outside the boundaries will help both the human and animal components of this recovery effort as stable, established wolf territories result in a stable, more easily managed population. **Response:** Studies conducted on coyotes are not necessarily applicable to wolves. See C/R 110 and 112.
183. **Comment:** Most dens identified as existing by the IFT were evaluated and pups never captured and identified before dispersal. Many potential litters were never sought by the IFT. **Response:** The IFT does not enter active wolf dens because doing so would be unnecessarily disruptive and likely reduce whelping success. Pups are not physically capable of wearing a radio collar until September. See C/R 144 and 145.
184. **Comment:** Releasing wolf pairs during the spring when the female is pregnant has led to abandonment and deaths of the litter. These deaths are also not counted in either category. Hence the unknown number of pup mortalities has had a striking influence on the lack of natural increases (USFWS has compensated by re-releasing problem animals).

- Response:** Translocation of pairs during spring has occurred while the female is pregnant. In most cases, this has resulted in successful translocation, with the wolves localizing in a desired area and successfully raising pups. However, a few cases have resulted in no pup production or abandonment. The total number of mortalities includes only documented losses. See C/R 129.
185. **Comment:** USFWS, most likely due to inbreeding problems, entered two new lineages (Ghost Ranch and Aragon) to the program even though Roy McBride stated they were not pure Mexican wolves and exhibited dog-like characteristics. There is not one person alive who knows more about Mexican wolves than he yet USFWS ignored his plea not to reintroduce them because the genetics had been fouled and the likelihood of problems such as livestock predation would likely be substantial. Could this be why you have experienced higher than expected livestock depredations and multiple hybrid litters? This whole issue needs to be reevaluated with sound science by independent scientists. **Response:** There is one certified pool, containing three pure lineages of Mexican wolf: McBride, Ghost Ranch, and Aragon (see Hedrick et al. 1997). All three lineages consist of pure-bred Mexican wolves; none appear to have ancestry from dogs or coyotes. Hedrick et al. (1997) recommended that all three lineages be combined in captivity to increase the number of founders and to postpone any inbreeding depression. Due to the increased chance of mortality, animals released to the wild must be genetically surplus to the captive population. When the reintroduction effort began in 1998, only wolves from the McBride lineage were released because of their genetic surplus status. Since the Ghost Ranch and Aragon lineages were integrated into the captive population, animals from these lineages have been incorporated into the release effort. There is no evidence to suggest that a wolf's lineage (McBride, Ghost Ranch, or Aragon) has any impact on its likelihood to depredate, hybridize, or survive in the wild.
186. **Comment:** Consider an experiment with pup cross fostering. **Response:** Cross fostering pups, or placing captive born pups into the dens of females in the wild, has been used in the Red Wolf Recovery Program. The Blue Range reintroduction effort might be able to use this approach to integrate valuable genetics into the wild population. However, it is highly invasive and AMOC has not attempted it to date.
187. **Comment:** We have been told Mexican wolves are a separate species and cannot interbreed but this has proven false with the hybrid litters. **Response:** Nuances of the evolving biological definition of what constitutes a "species" might have been missing from whatever conversation took place that stimulated this Comment. Regardless, gray wolves and dogs can interbreed; they just don't do so typically. The possibility of hybridization between Mexican wolves and dogs, while minimal, has always been acknowledged within the reintroduction effort, as published in the Final Rule. See also C/R 73, 179, and 185 on hybridization.
188. **Comment:** How is it that male dogs are getting past the alpha male wolves and breeding with the female wolves? **Response:** See C/R 73, 179, 185, and 187.

189. **Comment:** The question, “Have Mexican wolves crossbred with coyotes or other canids” should be evaluated in the 5-Year Review. It appears some has occurred and this taints the viability of the project. **Response:** It was not addressed in the draft 5-Year Review, but it will be addressed in the final document in a newly created genetics section. See also C/R 73, 179, 185, and 187.
190. **Comment:** The USFWS and IFT must conduct more frequent releases to increase the wild population of genetically under-represented lines. A genetically diverse population is critical to the long-term survival of this species. **Response:** See C/R 136, 174, and 185.
191. **Comment:** Page 31 -31 (Technical): The discussion of small litter sizes omits the possibility of in-breeding depression. The review is deficient in not addressing the genetic issues involving this problem. The review should incorporate Dr. Hedrick’s analysis of management-induced genetic pauperization of the population and his recommendation of introduction of Ghost Ranch and Aragon animals. **Response:** See C/R 73, 136, 174, 178-179, 185, and 187.
192. **Comment:** In a letter to the USFWS, Roy McBride says that the animals from the Ghost Ranch lineage are wolf-dog hybrids. Have animals from the Ghost Ranch lineage been introduced to the wild or bred to any of the animals released into AZ and NM? Was the euthanization of the Norma Ames and other facilities Ghost Ranch lineage animals not substantial evidence that these animals are wolf-dog hybrids? Would you please publish the genetic lineage and/or studbook relating to all “wolves” released into the BRWRA? Also please provide the basis on which all animals used within the breeding program have been certified as pure “Mexican wolves?” **Response:** Mexican wolves from the Ghost Ranch lineage have been bred to Aragon and McBride lineage animals, and have been released to the wild in the BRWRA. The first release of Ghost Ranch wolves to the BRWRA occurred in November 1999. Some Ghost Ranch wolves were euthanized and/or neutered in the late 1970s and/or early 1980s because of the mistaken belief they were wolf-dog hybrids. This is not evidence that Ghost Ranch lineage animals are wolf-dog hybrids. Rather, it reflects a reaction to uncertainty at the time, due to a lack of absolute evidence they were not hybrids. Recent advances in genetic testing have confirmed the Ghost Ranch lineage as pure Mexican wolf (Hedrick et al. 1997). Hence, they are now included in the captive breeding program and the reintroduction effort. All animals in the captive breeding program are certified pure Mexican wolves, through molecular genetic analysis, particularly from microsatellite loci. Definitive data from microsatellite analyses show that all three Mexican wolf lineages are substantially different from northern gray wolves, coyotes, and dogs. Further, the results are consistent with no past introgression from dogs and coyotes (Hedrick et al. 1997). The studbook for Mexican wolves (those in captivity as well as those released into the BRWRA) is maintained by and available from the American Zoo and Aquarium Association's Mexican Wolf SSP Program. See C/R 73, 136, 178-179, 185, 187-189, and 192.
193. **Comment:** How many wolf-dog hybrid appearing pups have been euthanized by this program? Please provide full specifics for each. Did these hybrids result from the pairing

of a released “wolf” and a dog after the “wolf” was released or did these hybrids result from the mating of captive animals before or after they were released into the wild? What assurances are there that all wolf-dog hybrids have been eliminated from the released population or that such hybridization will not happen again and dilute the purity of the species? **Response:** The only two litters found, totaling 13 wolf-dog hybrid pups (7 from one and 6 from the other), have been euthanized. No other hybrid litters have been found or reported, and every Mexican wolf released to the wild has been of certified pure genetic lineage (i.e. not a hybrid). We will continue to investigate genetic data and determine if introgression of either domestic dog or coyote genes has occurred within the Mexican wolf population. See C/R 73, 136, 178-179, 185, 187-189, and 192.

194. **Comment:** Wolf-dog hybrids are not protected by the ESA. Why hasn't the USFWS as yet published and distributed common ways to identify these animals and promote their destruction? **Response:** Wolf-dog hybrids, as noted in the Comment, are not protected by the ESA (see also C/R 193). AMOC has published ways to distinguish Mexican wolves from other canids (which include wolf-dog hybrids), although such distinctions often require close observation of, and familiarity with, physical details. Mexican wolves can also be readily distinguished from dogs or wolf-dog hybrids through genetic evaluation at the molecular level (Hedrick et al. 1997). Although Reintroduction Project staff address wolf-dog hybrids issues as they are encountered in the field (again, see C/R 193), agencies participating in the Reintroduction Project do not promote broad-scale destruction of such animals, which are considered under jurisdiction of County Rabies Animal Control agencies rather than State Wildlife Agencies or USFWS.
195. **Comment:** If Mexican wolves are genetically pure and show no signs of inbreeding depression, then why did the Pipestem Pack produce a dog-spotted pup in 2002? **Response:** In 2002, the Pipestem Pack alpha female bred with a domestic dog and produced a hybrid litter of seven pups. The female and her litter of pups were captured and removed from the wild. When the results of genetic testing showed that the litter was a dog-wolf mix, the pups were humanely euthanized. Despite these two known instances of hybrid litters, wolf-dog hybridization is a rare event in nature (e.g. see Nowak 2003). See also C/R 193.
196. **Comment:** There is no scientific study that supports the USFWS contention that either genetic integrity or reproductive viability can be maintained over time in a captive wolf population limited to one founding female and two founding males, such as is precisely the case for the McBride lineage of captive wolves. Moreover, both the Ghost Ranch and Aragon lineages are compromised by hybridization with dogs. What is the actual truth here? **Response:** See C/R 185 and 191-192 regarding the number of founders and certified lineages. Two males and one pregnant female captured in the wild in Mexico from 1977 to 1980 and the uncaptured mate of the pregnant female founded the certified captive population of Mexican wolves. In 1995, the Mexican Wolf Recovery Team approved addition of two other captive Mexican wolf lineages, representing four additional founders, into the certified population, based on state-of-the-art genetic analysis. One is known as the Ghost Ranch lineage, some of which were kept and bred at

the Ghost Ranch Living Museum in northern NM; the other is the Aragon lineage, based at the Aragon Zoo in Mexico City. Thus, the Mexican wolf population (captive and wild) now includes three certified lineages (of pure Mexican wolves) that together reflect seven founders. The finite number of founders for short-term viability in a sexual-reproducing species such as the wolf is two. However, to capture a representative amount of variability of a wild population, 20 to 30 unrelated founders is preferred for captive breeding (Ballou and Foose 1996; E. Spevak, personal communication, September 23, 2005). For some species, this has not been possible, because conservation efforts for these species were started after the extant population had already been reduced to fewer individuals than theorists would prefer (e.g. Mexican wolf [7], Przewalski's horse [13-14], Pere David deer [3], black footed ferret [7], Mauritius pink pigeon [13], Guam rail [10], Mhor gazelle [11], Attwater's prairie chicken [19], red wolf [12], and Arabian oryx [(13)). In such instances, it is especially important to manage for as much genetic variation as possible. The Mexican Wolf SSP provides that service for the captive population, and guidance for releasing animals into the wild population (see C/R 192).

197. **Comment:** Two hybrid litters have been found and destroyed; the potential exists for a significant number of unknown hybrid wolves in the wild. **Response:** See C/R 169, 179, 193, and 195.
198. **Comment:** There has been much question about the viability of keeping Mexican wolves pure as there may already have been crossbreeding with dogs. An answer that is not forthcoming from USFWS. Any cross-pups should be euthanized. **Response:** All known cross-bred pups have been euthanized. See C/R 169, 179, 193, and 195.
199. **Comment:** Mexican wolves were at best rare in the area and the 100 population goal is way over estimated. The population goal needs to be reconsidered and genetic viability needs should be ignored and solved using other methods if the population is too small to self-sustain. It is a moot point to be worried about genetics when the entire population started with only one female and two males anyway. **Response:** See C/R 185, 192, and 196 regarding the number of founders in the certified Mexican wolf population. See C/R 64 on the origin of the Reintroduction Project's population objective.
200. **Comment:** How can 7 original founders beget a genetically sound population? **Response:** See C/R 185, 192, and 196.
201. **Comment:** Livestock production in the upper Eagle Creek watershed has decreased due to drought, regulation increases, and the Mexican wolf. The costs to make the adjustment to meet larger scale management requirements of the various regulatory programs, especially the wolf reintroduction program, have drastically and disproportionately increased the financial burden on the local ranchers. The AGFD has made it clear they do not want to manage for elk in our watershed. Since elk is a major component of the prey base for the wolves, it is our recommendation that the upper Eagle Creek watershed be removed from the recovery area. **Response:** Economic issues are addressed in the Socioeconomic Component of the 5-Year Review. However, the premise that presence or

absence of elk alone makes an area wolf habitat or not wolf habitat is fundamentally unsound. Regardless, AGFD does not have a policy of not managing elk below the Rim. AGFD simply does not want to have year-round elk populations in marginal habitats, such as pinyon-juniper; and hunt and habitat recommendations are structured to achieve the desired result. Moreover, the purpose of the Mexican wolf reintroduction effort is to attain a self-sustainable population distributed throughout the BRWRA, including available habitat below the Rim. Thus, setting ecological in-holdings such as the upper Eagle Creek watershed aside from contiguous suitable wolf habitat in the recovery area would create unmanageable situations from a wildlife management perspective.

202. **Comment:** Wolves in the Gila are having a big effect on the elk's behavioral patterns. They are being pushed into higher heavier timber and don't use the wet meadows and open ridges anymore. If wolves continue to reproduce as they are, they will have a definite impact on elk herd sizes and State Game and Fish Departments will reduce licenses and hurt outfitter and other businesses. **Response:** See C/R 17 regarding wolf impacts on ecosystems by "moving" prey through hunting pressure. Unquestionably, wolves will eventually redistribute prey within the BRWRA through predation pressure and mere presence. State and Tribal wildlife agency monitoring of elk numbers and distribution will help determine when (and the extent to which) this occurs, but no detectable changes to big game populations as a result of wolf reintroduction in the BRWRA have occurred to date. No changes in the number of permits issued for big game hunts have been made as a result of wolf presence, either, as a result of wolf presence. If unacceptable negative impacts on prey base are ever identified, the State and Tribal wildlife agencies have the authority to implement remedial wolf management actions. Unacceptable impacts to game populations are defined within the experimental population rule as "2 consecutive years with a cumulative 35% decrease in population or hunter harvest estimates for a particular species of ungulate in a GMU or distinct herd segment compared to the pre-wolf 5-year average." The Final Rule also encourages wildlife management agencies to develop their own definitions of unacceptable impacts for approval by USFWS. Thus, both AGFD and WMAT have set that standard at 25% reduction attributable to wolf depredation.
203. **Comment:** Another socioeconomic study needs to be re-done in 3 years when the real harm by wolves starts to take effect by killing off the elk herds and bringing the cow/calf ratios for 30 – 40 calves per hundred cows down to 2 – 5 calves per hundred. **Response:** A better picture of wolf reintroduction impacts on prey populations, if any, would be achieved after the reintroduction population objective has been met, not at a point when the wolf population is still growing. Whether or not a subsequent socioeconomic study will be conducted depends upon funding available to the Reintroduction Project, and other project priorities expressed by the participating agencies and the public. Regardless, State and Tribal wildlife agencies will continue to monitor elk numbers and assess population trends and causes thereof.
204. **Comment:** More wolves are needed in order to affect elk in such a way that elk no longer hang in the creek bottoms eating what few willows are left or hammering the

winter browse which is critical to deer. If we could substantially reduce the non-native Roosevelt elk, then habitat conditions for deer may improve and their populations could help support wolves too. **Response:** See C/R 17 and 202.

205. **Comment:** Predator reintroduction programs are vital for population control of prey species. Deer overpopulation due to a lack of predators is a serious problem due to overcrowding, lack of food, and disease. **Response:** Although reduction or elimination of predation pressure can contribute to growth and overpopulation of deer herds, leading to undesirable impacts to habitat (e.g. Kaibab deer irruption of the early 20<sup>th</sup> century), there are no indications that deer are overpopulated within the BRWRA or suffering from overcrowding, starvation, or density-dependent disease mortality.
206. **Comment:** Page 1, second paragraph, last sentence, Technical: The switch in prey to elk following reintroduction reflects the new range of Mexican wolves; their evolutionary range in the Sky Islands and Mexico had few, if any, elk. **Response:** Elk (*Cervus elaphus*), as a species, are native to the southwestern USA (see C/R 204). Elk were among the natural prey of wolves that historically occurred in central and northern AZ and NM. Mexican wolves are thought to have preyed more heavily on deer toward the southern end of their range (i.e. Mexico), and perhaps the Sky Islands where elk did not occur or were only found in low numbers (see C/R 207). However, in what is now thought to be the northerly historical distribution for the Mexican wolf, elk would likely have been common prey before populations decreased in the late 1800s and early 1900s due to unregulated subsistence and market hunting (see Leonard et al. 2005 and C/R 164 and 207 regarding Mexican wolf historical range).
207. **Comment:** The agency severely overestimated the number of mule deer and Coues deer in the BRWRA, so much so that Mexican wolves are being forced to rely on Rocky Mountain Elk for a main prey species. Rocky mountain elk are not the historic prey of Mexican wolves and it takes a large pack to bring one down. **Response:** The FEIS identified deer as the preferred natural prey base of Mexican wolves. This was based on publications that considered central AZ and NM as the northerly limit of Mexican wolf historical distribution and which recognized that deer, not elk, were historically the common large wild native ungulates over that area (e.g. Brown 1983, Bednarz 1988, Johnson et al. 1992; also see Hesselton and Hesselton 1982). However, the FEIS identified elk as the likely primary prey base for reintroduced wolves over much of the BRWRA, because elk have become abundant there since they were reintroduced in the 1900s (e.g. see Bailey 1931, Findlay et al. 1975, Mackie et al. 1982, Peek 1982, Hoffmeister 1986). Ungulate estimates in the FEIS were based on the best information available from State and Tribal wildlife agencies in AZ and NM. These agencies conduct big game surveys with the objective of obtaining accurate population information to support sound management of wildlife resources, including predator populations. Any evidence of over or underestimation should be brought to the attention of the game management divisions of the respective wildlife agencies. Prior to the time wolves were extirpated from the Southwest, distribution and abundance of prey species such as elk and deer might have been quite different from what they are now. For example, elk were

eliminated from AZ and NM by the time wolf eradication efforts crested in the early 1900s. Today, elk are common within BRWRA, and this likely influences the relative frequency of elk to deer in the diets of Mexican wolves. The first Mexican wolves were released into the BRWRA in 1998, and they successfully preyed on elk within six weeks of release. Released and wild-born Mexican wolves continue to prey on elk and other wild ungulates, as individuals and as packs. See also C/R 206.

208. **Comment:** Page 31, Reproduction and Population Growth, Technical: You compared litter sizes and ungulate biomass available for wolves, and even that “wolves in the BRWRA may be limited by the amount of vulnerable prey.” It would appear that different locations are going to necessitate different prey base and sustain different wolf numbers; because it worked in Idaho, Montana, or other states doesn’t mean it will have the same outcome here. **Response:** Wolf populations are limited by the amount of vulnerable prey (Fuller et al. 2003) and/or human tolerance.
209. **Comment:** The 5-Year Review is not clear or concise and methods are confusing and may be meaningless to the lay reader. For example, Page 25 states “... indicating a strong preference for elk relative to the ungulate species available (32% elk and 78% deer).” This statement only considers wild ungulates as opposed to wild versus domestic ungulates. There were 89 reported incidents under depredations and 72 confirmed or probable kills of which 90% were elk. According to these numbers, preference seems to be cattle. What proportion of wolf diet and scat analysis indicate domestic ungulates, what percent were wild ungulates? And where did the 32% elk and 78% deer numbers come from? **Response:** Results of wolf predation on native ungulate species and wolf depredation on domestic livestock were not compared directly in the Technical Component of the 5-Year Review because data collection procedures were inconsistent or biased for predation relative to depredation incidents (e.g. varying levels of search effort for domestic livestock vs. native ungulates, incomplete information on number of cattle permitted vs. actual number grazed, and easier detection of domestic vs. native ungulate carcasses). In general, livestock kills are disproportionately investigated and documented relative to native ungulate kills; hence the incorrect perception that wolves prefer domestic livestock over native prey. The only completed scat study from within the BRWRA was conducted in AZ during the summer-fall, in areas where cattle were not present and calving year-round. This study reported wolves consumed 74% elk, 11% unknown native ungulates (deer or elk), 5% deer, 5% small mammals, and 4% livestock (Reed 2004<sup>2</sup>). Finally, the 32% elk and 78% deer figures referenced in the Comment are a typographical error and should actually be 32% elk and 68% deer. These values

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<sup>2</sup> In Reed (2004), opportunistic scat collection occurred in BRWRA from 1998-2001, where radio-collared wolves were present. Scats were actively collected from June-August 2000 and March-October 2001 within BRWRA. Relative abundance of wild ungulate prey and livestock in areas of wolf occurrence and scat deposition was not determined. Seasonal and area differences (e.g. winter-summer and AZ-NM) and conservative identification of scats as wolf (i.e. scats >28 mm) may have biased the results toward larger ungulates commonly found in larger scats. Also, note that wolf scats collected by a permittee reporting livestock depredations in the study area during this time were not made available to Reed.

represent the proportion (based on State wildlife agency game surveys) of native ungulates available within a specific GMU.

210. **Comment:** Proper management practices between predators and prey should be a priority. Wolves are devastating wildlife (deer) populations. **Response:** No detectable changes to big game populations as a result of wolf reintroduction have occurred to date, either in AZ or NM. No changes in the number of permits issued for big game hunts have been made as a result of wolf presence, either. See C/R 17, 23, 202-203, 206-207, 213, 396, 413, 468, and 476 on estimates of prey populations and changes in big game populations and/or hunt permits and hunter days.
211. **Comment:** Wolves will enhance hunting opportunities because they weed out the sick and old, thereby strengthening the health of prey populations. **Response:** Wolves disproportionately select for vulnerable prey. In Yellowstone, wolves contribute to a more stable and healthy elk population (Smith et al. 2003).
212. **Comment:** There is not enough prey base for the wolves. **Response:** See C/R 17, 23, 202-203, 207, 213, 396, 413, 468, and 476 on prey base issues.
213. **Comment:** The game depredation assumptions are subjective. To say deer aren't found simply because of size and consumption rate is only a best guess. There are very few deer in the BRWRA for wolves to consider them a primary food source. Only known elk calf kills are being counted so the actual losses based on wolf numbers are not accurate. Only a small percentage of elk calves taken are documented simply due to the size of the animal and the inability to locate the carcasses. The agency is obligated to make realistic determination as to the effect wolves will eventually have on elk herds and associated hunting activities. **Response:** Wolf predation estimates are based on wolf scat analyses, aerial winter predation studies, and identification of wolf kills on the ground. All these studies indicate that elk are the predominant source of prey for wolves. These results suggest that elk are a more significant portion of the wolf diet, and deer a smaller proportion, than was originally projected in the FEIS for Mexican wolf reintroduction. To date, no detectable changes to big game populations as a result of wolf reintroduction have occurred. No changes in the number of permits issued for big game hunts have been made as a result of wolf presence, either. See C/R 206 and 207.
214. **Comment:** By USFWS own evaluation, the main prey item historically for Mexican wolves was the white-tailed deer. USFWS is expecting Mexican wolves to prey on Rocky Mountain elk which are not native to the recovery area and were thus not a historic prey item for them. Mexican wolves expected to prey on elk even though it was not a historic prey species may be part of the reason we have seen such high predation on livestock and needs to be reevaluated since this oversight has been a major factor in the dismal success of the project. **Response:** See C/R 164, 206, and 207 on expected and actual prey base. Depredation rates in the BRWRA differ from the Northern Rockies, perhaps largely because of differences in grazing techniques and livestock husbandry practices. For instance, depredation rates (number of cattle confirmed kill/year/100 wolves) for

Montana, Wyoming, Idaho and AZ/NM were 11, 8, 5, and 16, respectively (see Table 7 of the Technical Component). Thus, the AZ/NM population has a slightly higher rate than other areas. However, wolves in AZ/NM can have up to four times greater interaction time with cattle on National Forest lands due to differing grazing schemes in this area. See also C/R 206 and 207.

215. **Comment:** Regardless of whether wolves need water, their prey does. To release wolves at locations that has no water for prey will cause wolves to leave the area when allegedly that place was chosen for its high concentration of prey. **Response:** Areas with adequate prey densities are undeniably required for successful release of wolves. Adequate water for prey species is one of the factors taken into consideration for determining a release area, whether it is an initial release or a translocation (see SOP 5.0: Initial Wolf Releases, and SOP 6.0: Wolf Translocations). Wolves are only released into areas of the BRWRA where there is adequate water to hold wolves and their native ungulate prey species.
216. **Comment:** Depredation rates are higher with Mexican wolves simply because they are mostly pen-raised and don't know how to hunt wild prey. **Response:** Mexican wolves know how to hunt wild prey, and wild-born wolves are more effective than captive-reared. See C/R 214 for a discussion of depredation rates.
217. **Comment:** How is it the prey density estimates were not adequate (Page 16, Predation, Technical) but the livestock depredations in other areas in the USA was sufficient to consider valid (Page 17)? **Response:** Prey estimates for the BRWRA are trend data (e.g. whether a population is increasing or decreasing), not true population estimates or densities for a particular GMU. Thus, these data were not used to predict the number of wolves the area could support based on a regression equation (Fuller 1989) that relates prey densities to the number of wolves. Data were available for livestock depredations in other areas in the USA, thus, we used these data to add to the overall understanding of the Blue Range Reintroduction Project.
218. **Comment:** There has been no trapping, collaring or vaccinations of wild born pups. **Response:** See C/R 145, 183, and 253.
219. **Comment:** No investigations of uncollared wolves in NM have taken place. **Response:** The IFT has spent significant time and effort investigating reports and searching for wolves without collars in NM. Many reports lack detail sufficient for follow-up. Therefore, reports must be prioritized based on their details, consistency, and overall patterns of reports for uncollared wolves. NMDGF is adding an additional employee to the IFT (see C/R 137), and should have additional ability to detect uncollared wolves. AMOC encourages anyone who believes they may have observed wolves (collared or uncollared) in NM and throughout the BRWRA to continue to report details of these observations to the IFT.
220. **Comment:** There have been no attempts to find missing wolves in NM, either when wolf sightings have reported or when depredations have occurred. **Response:** AMOC is not

aware of any instances where the IFT has failed to respond to any potentially verifiable incidents of livestock depredation by wolves. Depredation response time is the time between receiving a report and arriving at the scene to investigate it. Response times can be significantly affected by weather, as well as by topography and logistical issue, but all reports are investigated. For March 1998 through December 2003 (i.e. the 5-Year Review period), the average IFT depredation response time was 23 hours (range = 12 to 120 hours). For January 1, 2004 through October 10, 2005, the average IFT depredation response time was 18 hours (range = 12 to 48 hours). The IFT is available 7-day per week for depredation incident investigations, via a toll free number, 1-888-459-9653. If there is no answer, leave a message; your call will be returned as quickly as possible. If the IFT does not answer its toll free number, depredation or public safety issues can also be reported to AGFD at a 24-hr/day toll free hotline, 1-800-352-0700. See also SOP 10.0: Incident Reporting by Other Agencies and SOP 11.0: Depredation on Domestic Livestock and Pets. NMDGF also operates a 24-hr/day toll free number for reporting violations of wildlife laws, 1-800-432-GAME, that can be used in an emergency to report a possible wolf depredation.

221. **Comment:** Majority of wild born pups are no longer collared and vaccinated. **Response:** See C/R 145, 183, and 253.
222. **Comment:** USFWS will not trap for single wolves. **Response:** The IFT generally does not pursue single wolves for capture, because single wolves generally do not have a consistent pattern of use and/or use a vast area. Trapping is most effective when there is a good probability that a wolf will use the area near the trap. These limitations were recognized in the Final Rule, by the following statement, “(10) If Mexican wolves of the experimental population occur on public lands outside the designated wolf recovery area(s), but within the Mexican Wolf Experimental Population Area, the Service or an authorized agency will attempt to capture any radio-collared lone wolf and any lone wolf or member of an established pack causing livestock “depredations” [see definition in paragraph (k)(15) of this section]. The agencies will not routinely capture and return pack members that make occasional forays onto public land outside the designated wolf recovery area(s) and uncollared lone wolves on public land. However, the Service will capture and return to a recovery area or to captivity packs from the nonessential experimental population that establish territories on public land wholly outside the designated wolf recovery area(s).” Single wolves are, however, trapped per SOP 13.0: Control of Mexican Wolves, when they are involved in nuisance depredation incidents.

### **G. Compensation**

223. **Comment:** Livestock permittees should not expect the public to protect their private property from the natural consequences of their neglectful husbandry practices. **Response:** It is inaccurate at best to ascribe all livestock depredation to “neglectful [livestock] husbandry practices.” AMOC believes, as do the agencies it represents, that for wolf recovery to succeed, a better mechanism must be found by which to address wolf

impacts on livestock lawfully present on public or private lands. It appears that legislation at the State or Federal level would be necessary to provide such a mechanism.

224. **Comment:** Innovative solutions, such as fladry, fencing, and herding projects as supported by Defenders through the Proactive Carnivore Conservation Fund that are fair to all interests and promote wolf recovery need to be explored. **Response:** Federal listing of wolves brought about development and use of non-lethal tools and techniques to manage wolves (see Smith et al. 2000a and 2000b for a comprehensive review). These included scare devices (Breck et al. 2002; Schultz et al. 2005; Shivik and Martin 2001; Shivik et al. 2003), dogs (Coppinger and Coppinger 1995), barriers (Musiani and Visalberghi 2001; Musiani et al. 2003), improved livestock husbandry (Fritts et al. 1992; Mech et al. 2000), and translocation of problem wolves (Bradley et al. 2005; Fritts 1982 and 1985; Linnell et al. 1997). Additional research will be conducted based on project needs, funding, and innovative ideas.
225. **Comment:** Locals in the recovery area have to spend time and cost of fuel to attend wolf meetings and supply data to program of incidents and sightings. **Response:** AMOC by choice, since 2003, has elected to hold the majority of its public meetings in the core of the BRWRA. One reason is to encourage participation by local residents, who are unquestionably the stakeholders most likely to feel any direct impacts from wolf reintroduction. This also minimizes outlays of time and money for local residents, but has the opposite effect on stakeholders from distant locales. Urbanites from Phoenix, Tucson, Albuquerque, etc, have sometimes chastised AMOC for this deference. Thus, periodically meetings are held in outlying locations as well. Regardless, it does cost time and money to attend AMOC meetings. The alternative is not to attend, or to not hold meetings, and either of those choices would result in reduced opportunities for public participation in helping shape AMOC's adaptive management practices. With regard to locals spending time and money to provide information on incidents and sightings, that contribution is much appreciated and helps AMOC provide better management responses to address issues as they occur. Thus, locals benefit directly by providing such information.
226. **Comment:** Compensation for livestock losses should be from the USFWS wolf reintroduction funds to eliminate any real or appearances of conflict of interest. Consider not using Defenders compensation fund. **Response:** The USFWS does not compensate ranchers for livestock injured or killed by Mexican wolves and has no legal authority to do so. At this time, Defenders' Bailey Wildlife Foundation Wolf Compensation Trust is the only established compensation mechanism for wolf depredations. Defenders stated goal is to shift economic responsibility for wolf recovery away from individual ranchers and toward those individuals who want to see wolf populations restored.
227. **Comment:** It appears that compensation has done nothing to lessen rancher opposition so perhaps buying out the ranchers and allowing the public's wildlife to roam freely on the public's land is a better alternative. **Response:** A "buyout program" on public lands would have to be approved by Congress and signed into law by the President, as there is currently no law, regulation or policy that would allow for the buyout and retirement of

Federal livestock grazing permits. Under the multiple-use mandate of the USFS, livestock grazing on national forest system lands is authorized and regulated by a number of laws including the Multiple Use-Sustained Yield Act of 1960, Federal Land Policy and Management Act of 1976, [Section 402(a)], Forest and Rangeland Renewable Resources Planning Act of 1974, as amended by the National Forest Management Act of 1976, NEPA of 1969, and the Rescission Act of 1995. Livestock grazing is considered a traditional use of the national forest and, again, part of a multiple-use mandate.

228. **Comment:** Dogs used for livestock operations and hunting should be compensated for if killed or injured by wolves. **Response:** Federal, State and Tribal agencies do not compensate for dogs injured or killed by Mexican wolves and they have no legal authority to do so. The Defenders' Bailey Wildlife Foundation Wolf Compensation Trust is the only mechanism available to compensate for wolf-related loss of sheep, cattle, horses, mules, goats, llamas, donkeys, pigs, chickens, geese, turkeys, herding dogs and livestock guarding dogs. The Trust does not compensate for depredation of hunting dogs.
229. **Comment:** USFWS needs to allocate funds to reimburse livestock owners for kills both currently occurring and retroactive to wolf releases. **Response:** See C/R 228.
230. **Comment:** Livestock owners should be compensated for suspected and undocumented losses if there is any chance wolves killed it even if the evidence has been destroyed or lost to other carnivores or scavengers. **Response:** See C/R 228.
231. **Comment:** A formula should be devised to incorporate the extra expenses ranchers incur into the compensation they receive when they suffer a loss. **Response:** After considering all public and cooperator comment during the 5-Year Review, and its own evaluations, AMOC has made recommendations regarding voluntary incentives and compensation issues (see the AMOC Recommendations Component).
232. **Comment:** Regarding requests by ranchers for compensation due to decreased weight gain of cattle "run" by wolves: please take into consideration the portion of grazing that occurs on public lands which is in itself a form of subsidy to the cattle industry. **Response:** Multiple use of public land, including ranching and livestock grazing, is a legal activity on Federally managed USFS lands that make up the BRWRA. Grazing fees are set by Federal law and are beyond the purview of AMOC. The present formula for calculating the grazing fees on Federal lands in the West was set forth in the Public Rangelands Improvement Act (PRIA) of 1978. On February 14, 1986, after the expiration of the PRIA formula, President Ronald Reagan issued Executive Order 12548 directing the Secretaries of the Interior and Agriculture to continue to use the PRIA fee formula to calculate annual grazing fees. The order established a minimum fee of \$1.35. It also directed that for any given year the annual change in the fee shall not be greater than plus or minus 25% of the previous' years fee. In 1988, the fee formula from Executive Order 12548/PRIA was incorporated into 36 CFR 222 Subpart C. See C/R 37, 226, and 227.

233. **Comment:** There should be Federal compensation to livestock producers for all losses that are above pre-wolf introduction averages. Compensation should also include stock dogs, hunting dogs, and any purebred breeding animal normally classified as a pet. **Response:** AMOC established a compensation subcommittee to evaluate compensation programs such as the one described in the Comment. Updates on progress have been reported during quarterly AMOC meetings. Ultimately, a governmental compensation program would require legislative action. If such a program were enacted, it would have to address the availability and quality of allotment specific baseline data for pre-wolf reintroduction predator impacts on livestock herds. See C/R 37, 226-227, and 232.
234. **Comment:** Many ranchers are losing cattle without being compensated. A fair and equitable compensation program needs to be put in place which does not rely on outside interest groups for compensation. It must include not only livestock found, but must compensate for the increase in mortality rates since most livestock is never found and therefore no compensation is given. **Response:** See C/R 233.
235. **Comment:** The Coalition of Counties has only encountered extreme resistance to the concept of financial incentives and compensation in exchange for boundary expansion or dissolution. **Response:** AMOC's efforts to advocate such concepts have also met resistance in some quarters. In spite of this resistance, AMOC believes there is a workable solution to this conundrum. Some existing programs could provide financial incentives to persons who are providing wolf habitat, including the NRCS EQIP (which provides payments in other states for land enhancements that might reduce wolf depredation), and State Landowner Incentive Programs. These voluntary incentive programs are contingent upon willingness of interested landowners to participate.
236. **Comment:** Explore incentives that financially award private or Tribal landowners that "host" stable wolf packs or denning activity on their property. **Response:** See C/R 235.
237. **Comment:** Innovative approaches that minimize opportunities for interaction should be sought after and encouraged. Ranchers need to be taught how to minimize conflicts with livestock and wolves and funded to implement such measures rather than be assured that any wolf that takes livestock will be removed. **Response:** In some situations, new or additional husbandry practices might reduce conflicts with wolves. However, no participating agency has the authority to require such measures, and it is unreasonable to expect livestock operators to bear additional costs for livestock management without some means to offset these costs. Programs such as the Defenders proactive conservation fund could be used to pay for such measures, and it has been used to pay for herders on some allotments within the BRWRA (e.g. see Defenders of Wildlife 2005). Unquestionably, though, increased rancher use of preventative measures and greater public financial support for covering the costs of those measures would benefit wolf reintroduction. See C/R 224 and 235.
238. **Comment:** Possible actions to address wolf-livestock conflicts could include providing financial incentives for livestock management practices that minimize conflict, providing

payment to any permittee whose allotment or deeded land supports a successful wolf den in a given year, and voluntary retirement of certain grazing allotments with appropriate compensations. **Response:** See C/R 231 and 237.

239. **Comment:** Any proposed financial incentives to livestock producers should be conservatively and realistically selected to maximize the success of the reintroduction program. Describing the desired return on incentives as “an increased level of tolerance” is unacceptably vague. Given that years of political compromise and taxpayer funded subsidies to the livestock industry have produced continued intolerance, legislative sabotage, lawsuits against USFWS to terminate the reintroduction, and illegal wolf killings, what is the realistic hope for adequate return on further incentives? **Response:** AMOC believes that financial incentives can contribute to wolf recovery in the Southwest. A compensation subcommittee of AMOC has been established to evaluate alternative incentive and compensation programs. Updates on progress have been reported during quarterly AMOC meetings. Ultimately, authorization for a compensation program would require legislative action. See C/R 231, 233, 235, and 237-238.
240. **Comment:** Landowners and permittees should be provided payment incentives in exchange for increased tolerance of wolves. **Response:** See C/R 235 and 238.
241. **Comment:** We are in favor of a financial incentive program for landowners and permittees however given the current financial difficulties of the program we believe that such a financial incentive program would undermine the prudent use of already limited program funds. **Response:** The funding for incentives described within the 5-Year Review would have to originate from a different source of funds than those already available for the Reintroduction Project, in order to prevent a reduction of ongoing services that the project currently provides. Perhaps such compensation could be linked to standards (criteria) for husbandry practices that are appropriate to the topographic, weather, and other conditions with which ranchers must cope in the arid, mountainous Southwest.

#### **H. Adaptive Management Oversight Committee/Interagency Field Team**

242. **Comment:** Page 88, Items 19 and 20 (Technical): The bureaucratic interagency process set up to run the Mexican wolf project has been successfully used by anti-wolf recovery local government representatives to prevent releases of wolves into areas that may have biological potential. As a result, within the 3.3 million acre expanse of the Gila NF, the only places approved for releases so far are the 4 Gila Wilderness sites approved in 2000. Despite the meetings, money spent and other accoutrements of bureaucracy progress on Item 20 is stalled. **Response:** See C/R 102 regarding the four sites within the Gila National Forest approved in 2000 for translocations. The IFT is scheduled to prepare additional release and/or translocation site proposals for AMOC approval in 2006. SOP 5.0: Initial Wolf Releases and SOP 6.0: Wolf Translocations describe the relevant proposal and approval processes

243. **Comment:** Giving receivers to ranchers is preferential treatment of some members of the public and is wrong. If I cannot have a receiver (I'm a landowner in the same area as them) then they should not either. Providing certain people receivers is disparate treatment. **Response:** AMOC's decision to provide telemetry receivers to ranchers with demonstrated need for immediate information on presence of collared wolves is a deliberate, appropriate effort to reduce the impacts of "living with wolves." If a landowner who does not have livestock in the BRWRA demonstrated equal need, their request for a receiver would be considered in accordance with its priority relative to other such requests and on the basis of receiver availability.
244. **Comment:** Wolf team full cooperators do not include local organizations or local government; instead, TESH and Defenders enjoy full cooperator status. **Response:** Lead agencies that are full cooperators in the Mexican wolf Reintroduction Project include the USFWS, AGFD, NMDGF, USFS, WS, and the WMAT. While TESH and Defenders support the Reintroduction Project, they are not signatories to the MOU (see also C/R 245). However, USFWS and TESH do have a Cooperative Agreement in regard to management and maintenance of the Ladder Ranch captive wolf facility. NGOs are eligible to participate in the public AMWG meetings, and several do, but they do not participate as Cooperators in AMOC and they play no role in making AMOC decisions, other than to provide comment and recommendations, as can any other organization or member of the public. Per the MOU regarding Mexican wolf reintroduction, "Cooperator" status is restricted to governmental agencies at or above the county level. NGOs and private individuals participate in AMWG meetings to the extent they desire, but they do not attend AMOC meetings.
245. **Comment:** AMOC is made up of Federal and State wildlife agencies and NGOs. **Response:** See C/R 244. As stated in the MOU:

Collectively, the AGFD, NMDGF, USFS, USFWS, WMAT, and WS are referred to in this Agreement as Lead Agencies, the agencies with primary regulatory jurisdiction and/or management authority over the Mexican wolf in AZ and NM. Additional Lead Agencies (i.e. additional Tribal Governments) may be added to this Agreement upon their request, by concurrence from the Signatory Lead Agencies and written amendment to this document.

Collectively, the Counties and NMDA are referred to in this Agreement as Cooperators, which are other State agencies and county governments that have an interest in Mexican wolf management. Additional Cooperators may be added to this Agreement upon their request, by concurrence from Signatory Lead Agencies and Cooperators and written amendment from this document.

The MOU does not allow for private organizations, NGO or otherwise, to participate in AMOC as formal "Cooperators" and AMOC conducts itself accordingly.

246. **Comment:** Meeting and advertising cost for public input are born by counties where the input is sought. **Response:** AMOC covers costs for notification of public meetings and meetings facilities (when required) associated with public input processes. Counties may elect to distribute additional meeting announcements, advertisements, etc., and/or provide meeting facilities at their choosing. Greenlee, Sierra, and Catron counties have all provided public meeting rooms at their own cost. AMOC appreciates such cooperation, whether or not the agency is signatory to the MOU under which AMOC operates.
247. **Comment:** Public involvement was effectively eliminated unless you had access to internal information supplied by the NGOs with cooperator status in AMOC. **Response:** Every individual and organization had equal access to the 5-Year Review process, and equal opportunity to participate. Admittedly, residents of the BRWRA had the benefit of public meetings being skewed in terms of location for their convenience. However, that was intentional on AMOC's part. Also, NGOs do not have cooperator status within AMOC or AMWG (see C/R 244 and 245). Finally, the public does not need to wait for public meetings to provide input or request information.
248. **Comment:** Public input has been exorcised from the program. **Response:** See C/R 20, 34, 151, 171, 247, 251,301, 427, 428, and 431 regarding opportunities for public participation. Public input is an active and important part of the adaptive management process. AMOC is committed to holding quarterly, open public meetings within the reintroduction area to obtain continuous feedback on Mexican wolf conservation and management activities. Some additional public input processes may also occur for specific to individual activities, such as the 5-Year Review, development of Reintroduction Project SOPs, etc. Any time proposed actions or draft documents are brought to the public for comment, they are considered to be open questions. Many decisions within the Reintroduction Project are now guided by recently-approved SOPs, which were made available as drafts for public comment. Occasionally, the management agencies may also make decisions regarding management actions that are not addressed by the SOPs, in a time frame that does not allow for public input specific to that management action. In these rare instances, information is reported to the public as decisions and actions that have already occurred, not as a proposal open for comment. Any proposal that includes an opportunity for public comment could ultimately be implemented as presented, implemented as modified after considering public comments, or not implemented at all, based on public input that is received.
249. **Comment:** The project refuses to keep track of the spread of wolves. **Response:** Changes in distribution of wolves and occupied range of wolves are calculated each year (see Table 1 in the Technical Component). Reported sightings by the public are investigated if: (1) there is a pattern of more than one report in an area, (2) the reports appear credible, and (3) locations of radio-collared wolves do not correlate with the reports. In response to increasing numbers of free-ranging wolves, the IFT has accelerated trapping and collaring of uncollared animals. See C/R 250 on information flow and frequency of wolf location updates.

250. **Comment:** The wolf project refuses to inform ranchers of wolf presence in a timely manner. **Response:** AMOC began addressing this problem in 2003, as a first priority. The situation improved in 2004 and even more so in 2005, based on local resident comment at public meetings. Through November 15, 2005, the IFT has called residents or permittees 61 times by the day after the flight, and emailed residents or permittees 506 times on the day of or day after the flight. In addition, they responded to all calls from local residents requesting information. These emails and calls consisted of locations relative to geographic areas on the landscape. The locations were intentionally vague during the denning season of wolves, and generally only described the distance from one map point instead of two. The IFT is available for follow up calls or any phone call from the public regarding locations at 1-888-459-9653. Individuals have in some instances suggested that the location information should be given in more timely fashion, or was not accurate. AMOC does not always agree with that perspective, but in all such cases the IFT now works with the individuals to ensure that communication is improved. The IFT does not contact individuals who do not have wolves on or near their allotment or private land (e.g. individual locations may not be on an allotment but there is reason to believe from past movements/incidents that the wolves may end up on a particular allotment in the future). Further, the IFT does not routinely give locations to individuals who do not request the information from the IFT. Permittees or private residents that request the information and have a demonstrable need for the information are routinely contacted. The IFT is consistently searching for improvements in methodology and carefully considers all requests.
251. **Comment:** Immediately implement proper public input procedures and a balanced public advisory committee. **Response:** The public input procedures used in AMOC's 5-Year Review were/are proper, and as effective as the input received allows them to be. Public meetings and opportunities for written and verbal comment have been more than ample. Extensions for comment have been provided where circumstances seemed to indicate they would be valuable. AMOC itself represents all the State, Federal, and Tribal agencies with primary jurisdiction over wolf issues (except SCAT, which thus far has chosen not to participate formally). Persistent effort has been put forth to afford county governments opportunities to participate as formal Cooperators, though few have opted to sign on and only one (Greenlee County AZ) has been a consistent, constructive participant effectively representing their constituencies. Regardless of the agencies represented in AMOC and AMWG discussions, however, those participating have on every occasion carefully considered the values and interests of the entire spectrum of publics interested in or affected by wolf reintroduction in AZ and NM. Some key stakeholders have opted not to participate fully in AMWG meetings, but AMOC will continue to provide appropriate opportunities and, in the absence of participation, try to represent absentee interests to the best of its ability.

### **I. Standard Operating Procedures**

252. **Comment:** Flight times should be changed to late afternoon/evenings to get better scientific location points. **Response:** Weather, as it relates to human safety and visibility,

is a key consideration in timing of flights. Most flights are flown in the morning hours to avoid afternoon build-up of winds and storms. Angle of the sun in the early morning hours also generally provides the best sighting conditions for wolves and ungulate carcasses.

253. **Comment:** The agency has ignored county recommendations regarding release site selection criteria and timing. (#19 Technical) Much needed active management (hazing, trapping, counting, vaccinating and DNA testing of wolves) all of which were assured in the original EIS are not being done. **Response:** AMOC has never ignored, nor has the IFT ignored, any county or other recommendations regarding release site selection criteria and timing. All recommendations and relevant information are carefully considered, regardless of origin. Ultimately, release site decisions reflect situation-specific determinations that the overall potential benefits of one alternative are greater than for others, and the downsides (“costs”) of that alternative are either less than for any others or acceptable considering the benefits. As for active management practices, it appeared to AMOC that in some cases from 1998 through 2004 hazing and trapping were not initiated in a consistent manner. Thus, those components of wolf management were carefully described in AMOC SOPs (e.g. SOP 13.0: Control of Mexican Wolves), with specific triggers (criteria) for when and how they would be implemented in nuisance or problem wolf situations. As for vaccinating and DNA testing of released and captured (wild born) or recaptured wolves, all wolves handled are vaccinated and DNA tested as prescribed in SOP 21.0: Handling, Immobilizing, and Processing Live Mexican Wolf (Note: in accordance with Project veterinary guidance, SOP 21.0 does define specific circumstance in which the health, safety, and/or size/age of a given wolf dictate that it will not be vaccinated).
254. **Comment:** Insufficient field personnel have resulted in the inability of the IFT to respond to nuisance situations to haze wolves from problem situations. This needs to be addressed in the 5-Year Review. **Response:** AMOC came to this same conclusion soon after it began functioning under the MOU created in October 2003. Since then, AMOC efforts to increase agency commitments of resources to the IFT have added three FTEs, provided expanded emergency assistance from a variety of non-IFT agency employees during management actions, and generally greatly enhanced the IFT’s response capability for nuisance and problem situations. Development of appropriate SOPs for the IFT has also enhanced management responses, and provided local residents with more certainty as to how and when the IFT will respond to such situations. In short, the performance bar has been greatly elevated, and the public now has a bar against which that performance can be objectively measured. Other improvements are expected to result from the outcomes of the 5-Year Review. As the wolf population grows, or spreads, IFT capacity must continually grow to ensure that performance drop-offs do not occur.

## **J. Livestock Depredation**

255. **Comment:** Page 17, Paragraph 2 (Technical): How many depredations were located by government personnel (or researchers working in concert with such personnel) versus

how many were located by ranchers, versus how many were located by other individuals should be included in describing the effectiveness of the depredation program. Such information would provide insight into how onerous it is for ranchers to locate livestock carcasses killed by wolves thus providing a quantitative measure to the validity of one of the livestock industry's most oft-repeated claims. **Response:** Per SOP 11.0: Depredation on Domestic Livestock and Pets, the IFT investigates and documents all dead livestock located by or reported to the IFT that have potential for wolf involvement. All such records become part of an IFT database. From 1998 through 2005, 163 cattle/sheep/or goats were found dead or injured (i.e. total, from all causes), according to depredation reports available from the IFT (1-888-459-9653). The IFT found and reported 41% (n = 66) of these animals; permittees and others reported 59% (n = 97). However, comparisons between the number of known (tagged) livestock missing for an individual permittee and the number of dead (all causes) known (tagged) livestock found would be required to assess the difficulty of finding dead livestock. Research is underway within BRWRA to determine detection rates of livestock death (due to all causes; see C/R 301), but we do not yet know whether the results will be applicable across the Southwest. Situation-specific differences in topography, animal husbandry (livestock herding practices), and other factors might limit application.

256. **Comment:** Page 42, Paragraph 2 (Technical): A database and associated records need to be maintained on wolves scavenging on livestock that they did not kill. **Response:** See C/R 255. The referenced IFT incident record includes relevant information (if any) on scavenging. All such records become part of an IFT database. Therefore, records are maintained that document all known scavenging events, including those that were determined not to be wolf depredations.
257. **Comment:** Page 98, Item 53 (Technical): Captures and recaptures of wolves have not been minimized. Such control actions could be minimized by requiring removal of livestock carcasses before wolves scavenge on them and become habituated to livestock. **Response:** The carcass issue was first raised during the 3-Year Review by a panel of independent scientists (i.e. the "Paquet Report"). It was carried forward in the 5-Year Review so AMOC could address an important issue that was not highlighted in the 3-Year Review: there is no Federal or State law under which livestock owners or permittees (on public or private lands) could be required to remove, destroy, bury, or otherwise render inedible a livestock carcass. State laws in both AZ and NM affirm the livestock permittee is the only person who can lawfully decide whether to destroy, remove, or render inedible carcasses of livestock they own. After considering all public and cooperator comment during the 5-Year Review, and its own evaluations, AMOC has made recommendations regarding possible voluntary incentives for private individuals to address livestock carcass issues (see the AMOC Recommendations Component). However, per those recommendations, AMOC will not advocate regulatory changes to address carcass removal or disposal issues. See also C/R 52 and 287 on capture, etc. as essential components of wolf management.

258. **Comment:** The livestock carcass issue needs to be a non-issue. The idea that carcasses are everywhere needs to be stopped – there are just as many wild prey carcasses that the wolves could eat but they do not. **Response:** See C/R 257 and 259. No data exist by which to elucidate whether livestock or wildlife carcasses are more abundant within the BRWRA, all or in part. Nor do data exist by which to determine whether wild Mexican wolves prefer other foods to either kind of carcass.
259. **Comment:** USFWS should adopt the 5-Year Review’s recommendations for improving the Mexican wolf program by requiring the removal or treatment of livestock carcasses to make them unpalatable to wolves. Livestock die for dozens of reasons unrelated to predators, but when left on public lands the carcasses have been found to attract wolves, which ultimately encourages livestock depredation and wolf control. **Response:** The 5-Year Review carried the carcass removal recommendation forward from the 3-Year Review, for discussion and clarification purposes. See C/R 257.
260. **Comment:** In rough, rugged country, finding livestock carcasses is essentially impossible. Also, if you destroy carcasses, you will leave the wolves hungry causing them to kill possibly another livestock cow. Best to leave it up to the discretion of each rancher. **Response:** Per C/R 257, the livestock permittee is the only person who can lawfully decide whether to destroy, remove, or render inedible carcasses of livestock that he or she owns. See also C/R 258 regarding wolf preferences for carcasses and live prey.
261. **Comment:** The livestock carcass removal issue alone is enough to recommend permanent termination of the program. It is apparent by the unnecessary focus on this issue that far more is at stake for our members (i.e. various livestock organizations) than wolves and their survival. Use of this so-called carcass issue shows that there has been no good faith effort to work with ranchers on realistic problems they face. **Response:** See C/R 257, 258, and 260.
262. **Comment:** Fire to burn livestock carcasses is unacceptable due to drought conditions. Liming pollutes the watershed. Removing carcasses is as realistic as collaring every wolf. Livestock carcasses should not be removed if a lion or bear killed it because they will return up to 7 days later for their kill and they will re-kill if their food is taken and this would be a change in the ecosystem because of wolf reintroduction. **Response:** See C/R 257, 258, and 260.
263. **Comment:** The report fails to discuss the “attractant” aspect of livestock carcasses and the role carcasses may play in bringing wolves into close proximity of living livestock. **Response:** Section B-11 of the 5-Year Review addresses the attractant issue, which was raised in the 3-Year Review and thus carried forward in the 5-Year Review for discussion and an AMOC decision on whether to take or recommend relevant action. See also C/R 257, 258, 260, 267, and 268.

264. **Comment:** Requiring livestock operators to remove carcasses should be removed as a recommendation. This is reflective of an anti-grazing attitude that is so prevalent in the program. **Response:** See C/R 257, 258, 260, 267, and 268.
265. **Comment:** Innovative solutions to the carcass removal issue should be investigated. A partnership among ranchers, the agencies and conservation organizations is a possible solution. Perhaps a paid employee funded by the USFS, BLM or even the States to deal with carcasses on public lands should be investigated. A volunteer program similar to “Wolf Guardians” started by Defenders in the Rockies to minimize wolf/livestock conflicts could potentially be adapted to deal with carcasses. Or simply an educational program such as a brochure on how to make carcasses inedible, distributed by Federal or State agencies that come into contact with ranchers such as SWCD or NRCS. **Response:** After considering all public and cooperators comment during the 5-Year Review, and its own evaluations, AMOC has made a recommendation to develop voluntary incentives for private entities to address livestock carcass removal and disposal issues (see the AMOC Recommendations Component). See also C/R 257-264.
266. **Comment:** Regarding the livestock carcass removal issue, explore increasing grazing fees for operators who don’t manage their allotments properly and decrease grazing fees for operators who do. **Response:** The Federal grazing fee is established by Presidential Executive Order (see C/R 232). The formula (thus the fee) can only be modified or extended by the President. Grazing allotments are managed through a grazing permit, allotment management plan, and annual operating instructions from the appropriate land management agency (e.g. BLM or USFS). Permittees and the agencies use these documents to achieve desired vegetation condition as well as other management objectives. However, per C/R 257, there is no law, regulation, or policy that would allow USFS or BLM to require or enforce carcass removal.
267. **Comment:** The issue of livestock carcasses as attractants to wolves and possible catalysts for the onset of livestock depredation should be addressed through revisions of the rule. USFWS needs to increase law enforcement to monitor these and other activities relating to livestock operations. **Response:** Public lands grazing permits are administered by land management agencies (e.g. BLM and USFS). USFWS has no law enforcement jurisdiction over Federal grazing permittees.
268. **Comment:** Provide compensation to ranchers for livestock killed by wolves, but in return, require said ranchers to remove carcasses promptly. **Response:** See C/R 37 and 226-241 on compensation and C/R 257 on carcass removal and incentives recommendations.
269. **Comment:** We disagree that translocated wolves caused fewer depredations. Response time has been notoriously slow. The areas in NM where translocations occur are extremely remote; therefore, investigation of a depredation is not likely to occur even when a carcass is located. **Response:** Data collected for the 5-Year Review indicate five of the 18 wolves (27%) translocated after depredations ultimately depredated again.

Thus, most wolves involved in depredation incidents did not depredate again when translocated to another area. Re: depredation incident responses: per SOP 11.0: Depredation on Domestic Livestock and Pets, the IFT investigates depredation incidents as soon as a report is received. Depredation response time is the time between receiving a report and arriving at the scene to investigate it. Response times can be significantly affected by weather, as well as by topography and logistical issue, but all reports are investigated. For March 1998 through December 2003 (i.e. the 5-Year Review period), the average IFT depredation response time was 23 hours (range = 12 to 120 hours). For January 1, 2004 through October 10, 2005, average IFT depredation response time was 18 hours (range = 12 to 48 hours). The IFT is available 7-days per week for depredation incident investigations, via a toll free number, 1-888-459-9653. If there is no answer, leave a message; calls will be returned as quickly as possible. If the IFT does not answer its toll free number, depredation or public safety issues can also be reported to AGFD at a 24-hr/day toll free hotline, 1-800-352-0700. See also SOP 10.0: Incident Reporting by Other Agencies and SOP 11.0: Depredation on Domestic Livestock and Pets.

270. **Comment:** USFS should draw up and enforce livestock carcass removal rules. Penalties for not complying with this rule should include fines for first and second offenses with loss of grazing permit following the third non-compliance. This parallels the three times and out policy enacted for depredating wolves. Wolves drawn in to depredate livestock following feeding of abandoned carcasses which have not been removed by the permittee may be removed but should not be subject to lethal take. **Response:** See C/R 257.
271. **Comment:** The conclusion that carcass habituation is a valid issue, based on “observed” numbers that are unverifiable, is not defensible. NMDA would like this section rewritten or eliminated and notes that this section may increase the animosity between the livestock industry and the USFWS. **Response:** See C/R 257 re: the origin of the carcass removal issue. Depredation and carcass feeding incidents referenced in the 5-Year Review came from the WS Incident Investigation Database. They are based on documented depredation investigations that are verifiable, in accordance with SOP11.0: Depredation on Domestic Livestock and Pets.
272. **Comment:** New allotments should require responsible removal of carcasses by the allotment holder. Marginal operations could have their allotments bought out. Defenders could offer an incentive plan for ranchers who remove carcasses regardless of how the animal died. Make it worth their while to assist in this preventative management tool. **Response:** New allotments are not being created within the BRWRA. Allotments change hands through the sale of property, livestock, or both. See C/R 257 on carcass removal and AMOC’s intent to develop voluntary incentives to induce livestock operators to address the carcass issue.
273. **Comment:** Appendix II, #56 (Technical): The review notes that IFT disposes of carcasses when feasible. Producers themselves must take that responsibility. An appropriate role of the IFT would include providing livestock producers with the information on the means of disposing promptly carcasses in a manner that minimizes

scavenging by wolves. **Response:** The IFT does dispose of carcasses when the opportunity arises and they have permission from the livestock owner to do so. This is consistent with the AMOC agencies' commitment to cooperative solutions, which help build acceptance. Some ranchers remove and/or treat livestock carcasses themselves when possible, but this is voluntary and cannot be required under current law, regulation, or policy. The IFT also provides information to livestock owners on husbandry practices that can reduce the likelihood of wolf depredation. See also C/R 257 on carcass removal.

274. **Comment:** Since WS has the only certified wolf depredation investigators, they should be allowed to determine policy for verifying a wolf kill. It is a conflict of interest to force a different agency to comply with USFWS wolf kill standards when USFWS employees are not experts in depredations and do not investigate kills themselves. WS needs to determine their own standards and train their employees accordingly. **Response:** AMOC set the "wolf/no wolf" kill standard for the Blue Range Reintroduction Project in SOP 11.0: Depredation on Domestic Livestock and Pets. All cooperating agencies agreed to that standard. Per SOP 11.0, a WS IFT member has the primary lead on initiating depredation incidents investigations within 24 hours of receiving a report (see C/R 220 and 269 on compliance rates), and on determining cause of death. The method used in SOP 11.0 to determine if a wolf caused a depredation is based on criteria developed by Roy and Dorrance (1976), as well as classroom and on-the-job training with experienced WS professionals and other experts in the field. But, there is not a "certification" program for wolf depredation investigators.
275. **Comment:** The reality is if you have a depredation in AZ or NM, you might get some help. You may or may not get an email from the IFT telling you wolf locations. It matters very little when there is not a current count of wolves and distribution is not being documented since USFWS has the excuse that a collared wolf isn't in the area where a depredation occurs. (#14) Technical. **Response:** See C/R 220 and 274 re: depredation investigations. All incidents reported are investigated in accordance with SOP 11.0: Depredation on Domestic Livestock and Pets, and all nuisance and depredation incidents are handled in accordance with SOP 13.0: Control of Mexican Wolves. Whether a collared wolf is actually in the incident area has no impact on initiating an investigation. Per program guidelines for dissemination of location information (see SOP 3.0: Outreach), certain individuals receive, at a minimum, weekly flight location emails that are distributed within 24 hours of the telemetry flight. Typically, the email is sent the same day as the flight. These are people who have previously incurred livestock depredations or who previously have had "problem wolf" situations, and who have requested detailed location information updates. If such individuals lack access to email, they receive a phone call in the same time frame. However, as noted in the Comment, it is true that radio-collared wolves make up only a portion of the free-ranging population, and any wolf can move a long way very quickly. Therefore, we urge livestock owners, other residents, and anyone else using the BRWRA to act as if wolves could be present anywhere in the area at anytime.

276. **Comment:** With wolf mortality considered low and removal rates higher than predicted, that finding leads one to believe that more wolves are problem animals than the agency will admit to. **Response:** See Figure 3d and Table 5 of the Technical Component for information on removal rates and the absolute number of wolves removed. No relevant information about problem wolves or anything else has been withheld. See also C/R 11, 46, 253, and 275 regarding nuisance and problem wolves.
277. **Comment:** Livestock losses have increased since wolf introduction. **Response:** See C/R 214 and 216.
278. **Comment:** Page 23, Technical: Removals are confusing and deceptive. Although the Francisco Pack was removed for being outside the boundary, they were involved in numerous documented and unverified livestock killings and attacks, plus attacks on dogs. Many people have grown tired of reporting nuisances when wolves are in an area where cattle are disappearing but no carcasses are found – there is a definite “why bother nothing can or will be done” attitude. **Response:** All nuisance and problem (depredation) information for 1998-2003 was incorporated into the 5-Year Review. Wolves were assigned to removal categories in the 5-Year Review based on the major reason they were removed. Assigning multiple causes would have resulted in inflated counts of removals (e.g. one removal event would be counted multiple times). The Francisco Pack was removed mainly because it was outside the boundary, on SCAR, and SCAT requested removal per a standing Tribal Council resolution. Whether or not the pack depredated was irrelevant to SCAT. It is true that various members of the Francisco Pack were confirmed to have been involved in livestock depredations; two uncollared subadults were targeted for lethal removal, which was unsuccessful. However, the remaining pack members were not under a livestock-related removal order when the pack (2 alphas and 4 pups) was captured on and removed from SCAR, thus assigning the entire pack to a depredation category would have been doubly inaccurate. Regarding knowledgeable individuals choosing to withhold information on depredation incidents, this is a self-defeating action. Since IFT response modes and resource allocations (i.e. budgets) are based largely on accumulated incident records, failure to report actual cattle depredations, suspected depredations, missing livestock, or nuisances because an individual believes nothing can or will be done only penalizes the community most affected by wolf reintroduction. A complete and accurate compilation of wolf depredation reports is essential to making appropriate management decisions regarding Mexican wolves.
279. **Comment:** Page 21, Table 1, Administrative: 40 wolves have depredated cattle. This table can also represent that the BRWRA doesn't have an adequate prey base or it can represent wolves prefer livestock as an easier source of diet. **Response:** Depredation on livestock does not of itself indicate an insufficiency of native ungulate prey (see C/R 23, 202, and 207 on prey base sufficiency). As discussed in the Technical Component, many factors contribute to livestock depredation. Ease of access to livestock and native prey availability are just two among many. Sufficient data do not yet exist for the BRWRA to elucidate clear correlations for each factor, let alone identify causative effects, for this area (see C/R 301 on a relevant ongoing study in BRWRA). However, as noted in C/R

- 258, when given the choice between livestock and abundant native ungulates, wolves in other areas have been shown to prefer the latter (Salvador and Abad 1987, Meriggi et al. 1991, Smietana and Klimek 1993).
280. **Comment:** Successful litters have been raised on livestock operations utilizing cattle as a prey source. **Response:** Livestock depredation has been documented within the BRWRA, but no litters of wolf pups have been raised solely on a livestock prey base. Adults as well as pups have been removed from the wild to address chronic livestock depredation issues. Wolves that establish a habit of killing livestock are now removed in accordance with SOP 13.0: Control of Mexican Wolves, regardless of breeding status or pack structure.
281. **Comment:** Mexican wolves released into the Gila Wilderness have not established permanent home ranges and instead moved consistently to adjacent livestock operations. **Response:** Mexican wolf home ranges are sufficiently large that is unlikely any pack would ever be confined entirely to an area as small as the Gila Wilderness (see also C/R 468). Note: portions of the Gila Wilderness are lawfully grazed by livestock, thus it is not necessary for Mexican wolves to leave the area to encounter livestock.
282. **Comment:** The USFWS should not use WS employees to monitor the wolves because their time needs to be spent controlling more traditional predators, especially coyotes. **Response:** See C/R 19 and 170 regarding WS funding. Congress provides annual funding and direction for WS to work on wolf management in AZ and NM. Decreases in annual appropriations have reduced the primary focus to livestock depredation response. Per SOP 11.0: Depredation on Domestic Livestock and Pets, WS IFT members are lead respondents on potential Mexican wolf depredation investigations. Routine monitoring is handled by IFT members from agencies other than WS.
283. **Comment:** If a wolf is in the area, WS leaves the area immediately. They are scared to do their job for fear of harming a wolf. **Response:** WS does not leave an area because they are afraid to do their job for fear of harming a wolf. However, WS sometimes does change its wildlife damage management methods when a wolf moves into an area in which WS is currently working. These changes enable WS to meet the needs of the cooperator, while still (a) meeting its own obligations under the ESA, (b) abiding by the Final Rule, (c) abiding by EPA Section 3 labels, and (d) abiding by a USFWS Biological Opinion on the WS depredation management program.
284. **Comment:** As ranchers below the Mogollon Rim, we feel the wolves have been allowed to roam into territory restricted to them. AGFD has informed us they don't manage for elk below Rose Peak. If elk are to be the prey of wolves, then wolves need to be kept above Rose Peak. This will ensure that the wolf program maintains a wild prey base to reduce conflicts with the growing number of livestock below Rose Peak. We propose the area between the Mogollon Rim and Rose Peak be used as a buffer zone to move in and out of. Any wolves below Rose Peak should be relocated to their designated territory. Wolves should be handled as any other predator when livestock or other domestic animal depredation occurs. **Response:** Wolves are allowed to roam throughout the BRWRA, in

accordance with the Final Rule under which reintroduction is authorized. Wolves that travel outside the boundaries set by that rule must be captured, removed, and translocated in accordance with the same rule. Regardless, the premise that presence or absence of elk alone makes an area wolf habitat or not wolf habitat is, from a wildlife management perspective, fundamentally unsound. Moreover, the purpose of the Mexican wolf reintroduction effort is to attain a self-sustainable population distributed throughout the BRWRA, including any available habitat below the Rim. Thus, setting ecological appropriate in-holdings aside from contiguous suitable wolf habitat in the BRWRA would impede progress toward wolf management objectives. The preceding notwithstanding, AMOC agrees that the desired future condition is recovery of the wolf, Federal delisting, and returning management responsibility to the States and Tribes, a scenario in which depredating wolves present in healthy, self-sustaining populations could be managed like any other predator.

285. **Comment:** The increase in the coyote population due to the lack of trapping and predator control has caused the deer population to decline. Unless the competition from coyotes is taken care of, the wolves will continue to rely on livestock as a main food source. **Response:** We have no information indicating that the BRWRA coyote population has expanded, the BRWRA deer population has declined due to coyote depredation, wolves in the BRWRA rely on livestock as a main food source, or wolves in the BRWRA will [continue to] rely on livestock as a main food source unless competition from coyotes is diminished.
286. **Comment:** Page 98, Item 56 (Technical): There are no effective regulatory methods in place to prevent wolves from scavenging on livestock. And contrary to the statement to this item, both wolf 166 and 592 were allowed to scavenge on dead cattle despite requests by agency personnel that they be allowed to remove these carcasses. Most dead livestock that are found are located after wolves have begun scavenging, which greatly reduces the chances the wolves will not become habituated. This review should identify what level of predator control that is ultimately caused by such scavenging this population can sustain in perpetuity and what level is actually occurring, as a baseline for determining whether this situation is being adequately addressed. **Response:** That statement will be changed to read “Carcasses of livestock are, when feasible and acceptable to the livestock owner(s), made unavailable to wolves by removal, rendering inedible, or on-site disposal by the IFT [however, see C/R 257]. Carcasses on public lands that are seen on aerial telemetry flights, or discovered through regular field monitoring, are routinely disposed of or rendered inedible by the IFT, when feasible and acceptable to the permittee. Similar actions are taken by the IFT on private lands, when given permission.” As was also noted in C/R 257, the IFT works with willing permittees to remove livestock carcasses or render them inedible in accordance with permittee wishes. During certain times of the year (e.g. calving season for cattle or denning season for wolves), it may be especially beneficial to livestock operators to remove or render inedible carcasses, to discourage wolves from localizing near the carcasses. However, the converse might also be true, i.e. Chavez and Gese (2005) suggested hyper-abundance of secondary prey items and domestic livestock carrion dampened the need for wolves to switch to cattle. In the case

of wolves 166 and 592, the livestock permittee would not allow agency personnel to remove or render the livestock carcasses inedible because of the belief that the wolves would then go on to depredate on other cattle that much sooner.

287. **Comment:** Rates of wolf removal exceed mortality rates and the combination of these rates (62%) is not sustainable. The FEIS predicted releases wouldn't be needed past 2002 but they have continued through 2004. This is not a "recovery" scenario. Removals of wolves for livestock depredations are not likely to decline given the near-ubiquitous distribution of livestock in the BRWRA. This is a serious impediment to wolf recovery. **Response:** AMOC believes the BRWRA population is approaching the point at which releases are not necessary to sustain growth that will result in achieving the current population objective of at least 100 wolves (see C/R 505 regarding the 2006 Moratorium). Although discussion of recovery is beyond the scope of the 5-Year Review (see C/R 64, 66, 85-87, 96, 357-375, 457, and 463), achieving a BRWRA population of at least 100 wolves would constitute an important step toward rangewide recovery. As stated in C/R 85-88, 103, 104, 106-109, 357, and 368, AMOC has determined that the Final Rule should be changed to facilitate progress toward that objective. Thus, after considering all public and cooperator comment during the 5-Year Review, and its own evaluations, AMOC has made recommendations regarding possible changes in the Final Rule or creation of a new Final Rule (see the AMOC Recommendations Component). However, as stated in C/R 52 and 257 and as reflected in SOP 13.0: Control of Mexican Wolves, AMOC also believes that livestock-related wolf removal practices are an essential component of wolf management, to strike the proper balance between addressing various impact concerns and maintaining a viable, self-sustaining population of wolves in the BRWRA. See also C/R 99 and 138 on sustainability.
288. **Comment:** Do not relocate "bad" wolves, properly eliminate them. **Response:** AMOC believes that SOP 13.0: Control of Mexican Wolves now provides appropriate guidance for the stepwise progression of control actions.
289. **Comment:** Response times to depredations are frequently longer than one day. **Response:** Depredation response time is the time between receiving a report and arriving at the scene to investigate it. For March 1998 through December 2003 (i.e. the 5-Year Review period), the average IFT depredation response time was 23 hours (range = 12 to 120 hours). For January 1, 2004 through October 10, 2005, the average IFT depredation response time was 18 hours (range = 12 to 48 hours). See also C/R 220.
290. **Comment:** A lack of field personnel has forced livestock operators and homeowners to perform depredation and impact monitoring functions (having to check livestock more often for fear of depredations, costing ranchers more time and money), which has passed an unfunded mandate to local government and private citizens. This mandate has been disruptive to the daily activities of local citizens and has created an adverse fiscal impact for local governments, livestock operators, and homeowners that the 5-Year Review fails to address. **Response:** Some livestock operators and other residents of the BRWRA have significantly contributed to wolf management since 1998 through their own "monitoring"

efforts (see also C/R 151). AMOC greatly appreciates these efforts, and encourages all parties to help ensure that relevant information flows quickly and accurately in both directions. AMOC also believes that inadequate funding and staffing for the IFT, and perhaps inefficient deployment of available IFT staff, have at times placed undue hardship on local residents, especially in the Reintroduction Project's early years. Since being formed in 2003, AMOC has responded to these problems by: securing additional funding; expanding the IFT (3 new positions added in 2005); developing SOPs to increase management efficiency, effectiveness, and consistency in IFT response; and increasing opportunities for interested and affected parties to apprise the cooperating agencies of their concerns, so appropriate adaptive management responses can be formulated and implemented. According to comment from ranchers and other affected parties in AMWG meetings during 2005, improvements have been noted in management response within the IFT. However, AMOC believes that more improvement is needed, thus, after considering all public and cooperator comment during the 5-Year Review, and its own evaluations, AMOC has made recommendations regarding IFT expansion on an agency-specific basis (see the AMOC Recommendations Component). With regard to any financial impacts of the Reintroduction Project, whether positive or negative they are addressed in the Socioeconomic Component and C/R 518-611.

291. **Comment:** Page 60, Table 8, Technical: Why does it only show cattle killed? Figures are misleading. We realize that it is difficult to come up with realistic figures but when a permittee has the loss figures from the years before and after the wolves move into their area to compare that is important, substantive data. It should be more meaningful than similar data from a state 1000 miles away. Why were probable kills left out? Were all cattle depredation investigation in other states handled or described the same way? **Response:** Only confirmed kill data were used in that Table (i.e. probable kills were omitted) because that was the only information available for the other states, and our intent was to contrast livestock losses among various wolf management/reintroduction projects. BRWRA depredation investigations are conducted by trained personnel and described as confirmed, probable, or possible (per SOP 11.0: Depredation on Domestic Livestock and Pets). Depredation investigations in other states are handled much the same as they are in the BRWRA. Although the BRWRA Reintroduction Project appears to spend more time looking for dead cattle than other wolf management projects do, the actual number of livestock killed within any project is impossible to determine because not all livestock carcasses are found and/or reported and because sometimes sufficient evidence does not exist to determine the cause of death. The best available information for numbers of cattle killed by Mexican wolves in 1998-2003 was reported in the Technical Component, i.e. 23 confirmed livestock kills, four probable kills, and 10 possible kills. We recognize there is a large discrepancy between the number of livestock kills reported (documented) by the Reintroduction Project and the number reported missing by livestock producers. However, we rely on reports verified by WS when determining actual wolf depredation numbers (a similar standard exists for the other wolf projects). Even so, to address this discrepancy, the Socioeconomic Component (see also C/R 518-611) presents a range of estimates of wolf depredations for 1998 through 2004. The low estimate represents the average of the agency records of confirmed kills

(including all records from the IFT and the Defenders compensation program [see Defenders of Wildlife 2005]). The medium estimate incorporates a multiplier from published literature that estimates unconfirmed kills in addition to confirmed kills. The high estimate reflects estimates of losses based on information provided by ranchers. According to these estimates, wolves have killed an average of five to 33 cattle each year, or less than 1% of the estimated 34,800 cattle grazed in the BRWRA annually.

292. **Comment:** The project needs to provide trained depredation personnel and realistic and flexible investigation procedures. (#16) Technical. **Response:** WS IFT members are professional wildlife damage management experts who are well trained in the field of predator depredation. IFT members and other personnel from the other cooperating agencies, who assist WS as necessary in depredation investigations, sometimes also have significant expertise involving depredation by protected wildlife. Any staff members who do not have the necessary experience are provided appropriate training, usually by WS, before they participate in investigations. See also SOP 11.0: Depredation on Domestic Livestock and Pets, for investigation criteria.
293. **Comment:** When wolves have been confirmed to depredate livestock, lethal take permits should be approved immediately for the affected party, as with any other livestock depredating predator. (#17) Technical. **Response:** Because Mexican wolves are Federally listed under the ESA as an endangered species, they cannot be managed like “any other livestock depredating predator.” All Mexican wolf management must comply with the Final Rule.
294. **Comment:** There is nothing to substantiate rancher claims of wolf losses. It seems most wolf losses are due to poor animal husbandry practices. **Response:** The 5-Year Review reflects all available information livestock losses (see C/R 291). The IFT investigates every reported livestock loss, but it appears that an unknown number of losses are not reported to the IFT (see C/R 278 and 346 on unreported losses). In addition to unreported but “known” losses, some carcasses or losses to Mexican wolves will inevitably go unreported since (due to topography, vegetation cover, decay and consumption rates, etc.) they will never be found. Nevertheless, AMOC cannot and will not speculate as to whether “most” depredation losses are due to “poor animal husbandry practices,” or whether all ranchers could improve their herd husbandry practices. See C/R 214, 223, 224, 235, 237, and 273 on animal husbandry practices.
295. **Comment:** Assess effects of ADC, specifically coyote trapping. **Response:** ADC became WS in 1997, thus WS is used throughout the 5-Year Review. The IFT considered all relevant wildlife management programs in the Technical Component. AMOC concludes WS is a significant asset to wolf conservation, and Section 7 consultations between WS and USFWS are the appropriate mechanism for assessing specific effects of WS programs such as coyote trapping. Any further assessment is beyond the scope of the 5-Year Review.

296. **Comment:** We disagree with the agency's methods, including bringing in a scientific team to make recommendations that are actually political recommendations and only afterward asking a working group to enhance the 3 year review. Even then the USFWS did not find the time or money to incorporate those recommendations, with the exception of one working group. This group concurred with the most burdensome claim made by the scientific team which was to regulate ranchers over livestock carcasses. The agency has spent tremendous time and effort on this single issue to the exclusion of all others. USFWS included subjective and biased incidental data from an extremist environmental organization to bolster their need to place the burden for increased wolf livestock kills on the rancher. We strongly disagree with this claim and adamantly refute all evidence USFWS used to back up the opinion that wolves kill more livestock when they find a livestock carcass. **Response:** This Comment is largely beyond the scope of the 5-Year Review. See C/R 45 on 3-Year Review issues. See also C/R 257 on the carcass issue, which as noted was first raised during the 3 Year Review and which was carried forward in the 5-Year Review to provide closure that should have been forthcoming in 2001. As noted in C/R 257, there is no legal foundation in existing laws, regulations, or policies for requiring removal of livestock carcasses from public land grazing allotments or from private lands. As for the portion of the Comment about including "subjective and biased incidental data from an extremist environmental organization," AMOC presumes the organization in question is the CBD. The CBD obtained those data from an AMOC agency, via FOIA. The CBD's FOIA records were consulted only to ensure that the information the IFT considered in the 5-Year Review was complete (the information actually came directly from an IFT database).
297. **Comment:** There have been many instances where confirmed wolf kills have been changed to possible or probable kills. WS and the project won't admit when wolves have actually killed livestock. **Response:** In the preliminary phase of an investigation pursuant to SOP 11.0: Depredation on Domestic Livestock and Pets, participants often speculate as to cause. The affected rancher is often on site at that time, as are IFT members from non-WS cooperating agencies. If a participant is not present all the way through the final WS determination, they might well come to an erroneous conclusion as to why the final cause differs from that which was first speculated (if it does differ). Again, the final call on cause of death in a depredation investigation is made by WS after careful review of all available evidence (in accordance with SOP 11.0). The final call may or may not be the same as the initial conjecture. Thus, interested parties should refer only to a final printed IFT report for a determination regarding a depredation investigation.
298. **Comment:** Agency personnel have avoided using their own best available science in determining actual livestock losses. It is obviously not a primary focus of data collection since agency policy is to use what suits the program best and refuse any information from the livestock experts. **Response:** See C/R 292 and 297.
299. **Comment:** The burden of proof on all livestock kills should be placed on the USFWS to prove that is absolutely was not a wolf kill instead of on the ranchers to prove it was a wolf kill. **Response:** See C/R 220, 274-275, 291-292, and 297 regarding outcomes of

depredation investigations. The burden of proof is not on ranchers, nor should it rest with them or with USFWS. The burden of proof is on the IFT investigator(s) (per SOP 11.0: Depredation on Domestic Livestock and Pets) to provide fair and unbiased reports on all depredation incidents. As of September 2005, 96 of the 162 potential Mexican wolf depredation reports in the IFT files attributed cause of death or injury to possible, probable, or confirmed Mexican wolf depredation. Other known, possible, or probable causes reflected in these reports included accidental injury, lightning, noxious weeds, coyotes, black bears, mountain lions, feral dogs, hybrid animals (not Mexican wolf hybrids), birthing, and unknown causes.

300. **Comment:** Entire wolf packs should not be destroyed following livestock depredation. Proper aversive conditioning and livestock carcass disposal should be exercised first. **Response:** Management of wolves causing livestock depredations focuses on individual animals as outlined in SOP 13.0: Control of Mexican Wolves. The first depredation response relies on non-lethal management to change the behavior of the depredator(s). With each successive depredation, the level of management intensity increases. The absolute last action would be removal of the entire pack if removal of selective depredators and/or other pack members did not stop the depredations.
301. **Comment:** Page 84, Item 7 (Technical): The cattle depredation study has been an on-and-off endeavor that has been handicapped by secrecy about where it has taken place and even who the peer reviewers for this research are. This secrecy undermines the validity of the study's methodology and has led to suspicion that the study was terminated or suspended because it did not demonstrate the high level of depredations that is adherents expected. The current status of the project should be clearly stated in the review and its procedures opened up to public scrutiny. **Response:** WS National Wildlife Research Center is conducting the referenced study, with support from some AMOC agencies. The study began in late 2003, at the end of the period the 5-Year Review covers (1998-2003), and its findings will not be available until 2007, after the Review is completed. Therefore, the study is not covered in the final Review, other than to acknowledge its existence. However, AMOC wants to make clear herein that: (a) the principal investigator discussed the general purpose and approach of the study in several AMWG public meetings during 2003-2004; (b) the final draft proposal for the study was vetted with the SWDPS Recovery Team Technical Sub-Group; (c) neither the methods of the study nor the study itself have been modified or terminated, nor will they be modified or terminated, because of any concerns about the possible final results (i.e. there is no "predetermined" outcome); (d) the draft final report will be subjected to rigorous peer review before and during the publication process; and (e) to help ensure that the study is not disrupted, further information about it (e.g. location, interim findings) will not be shared publicly until the final report has been completed.
302. **Comment:** Pages 20-24 (Administrative): It is irresponsible to find that 91% of wolves that are known to scavenge on livestock are also associated with depredations and not to recommend any regulatory changes. Such changes should be identified and implemented. It is also unfortunate that the statistics probably underestimate the incidents of scavenging

- since poor records of such are kept. Also note that the limited wolf monitoring (1 -2 per week) almost certainly missed other scavenging incidents. Whatever best estimate figure this review ultimately comes up with of how many wolves have become habituated to stock as a result of carcasses, it should be analyzed as part of a population viability analysis for what effect it has on this population's viability. **Response:** Sections of the 5-Year Review pertaining to correlations between scavenging and depredation have been reanalyzed and revised to clarify this issue. AMOC will not recommend regulatory changes to require carcass removal (see C/R 257 and the AMOC Recommendations Component). Doing so would conflict with the agencies' commitment to integrate Mexican wolf reintroduction into existing multiple-uses of public lands, with respect for private property rights. However, after considering all public and cooperator comment during the 5-Year Review, and its own evaluations, AMOC has made recommendations regarding possible incentives-based voluntary practices that could address carcass-related issues (see the AMOC Recommendations Component). With regard to a PVA, AMOC has made a recommendation regarding a habitat /population viability analysis that reflects concerns about data sufficiency for such an analysis (see the AMOC Recommendations Component; see also Fritts and Carbyn 1995, White 2000, Boitani 2003).
303. **Comment:** Mexican wolves are being forced to rely on elk gut piles left by hunters, elk calving season and livestock for their main source of manageable prey, while they have killed some grown elk almost equal to the number of USFWS verified livestock depredations, the majority are not subsisting on elk and are migrating from wilderness areas to livestock operations for an easier prey source. **Response:** See C/R 209, 281, 287, and 468.
304. **Comment:** Excessive livestock depredation has been prevalent in the past 3 years and has led to high removal rates of Mexican wolves from the wild. **Response:** See C/R 287.
305. **Comment:** Excessive livestock depredation has also led to the sale of several ranches in the BRWRA. **Response:** The 5-Year Review, including Socioeconomics investigators' discussions with rancher stakeholders and local communities, did not reveal any data that would confirm this Comment. Any information supporting this allegation should be submitted to AMOC as soon as possible.
306. **Comment:** Livestock depredation control program is incapable of keeping up with the livestock depredators that the USFWS is determined to re-release in the BRWRA. **Response:** See C/R 254 and 290 regarding problems stemming from insufficient IFT staff early in the Reintroduction Project. However, to date the IFT has addressed every known depredation issue in the BRWRA that has been brought to our attention. See C/R 220, 269, and 289 on response times, which decreased from less than 24 hours for 1998-2003 to less than 18 hours for 2004-2005.
307. **Comment:** Control actions are not being done in a reasonably timely manner. **Response:** See C/R 220 and 269 on response times. Please note that some control actions are more difficult (and take longer) than others, due to terrain, weather, and wolf behavior.

308. **Comment:** USFWS are seldom available to answer the calls when depredations are occurring. **Response:** See C/R 220 and 269 regarding IFT availability, their toll free phone number (1-888-459-9653), and alternative 24 hr/day toll free numbers to use if the IFT is not immediately available. SOP 0.C provides additional pertinent individual contact information for IFT and other Project-related staff. Also see C/R 269 regarding average IFT response times for investigating depredation incident reports.
309. **Comment:** There is a large discrepancy between the agency identified confirmed depredation losses versus rancher estimated losses of livestock. Clearly timely determinations of mortality could help to offset speculation of the cause of mortality be it wolf, bear, lion, or other agent. **Response:** See C/R 291 regarding the referenced discrepancy. Also see SOP 11:0: Depredation on Domestic Livestock and Pets, which establishes current timeframes for final determinations on livestock investigations. Those timeframes were established in part because prior to 2005 determinations were sometimes delayed unacceptably.
310. **Comment:** Implement a “one strike you’re out” policy on all depredating wolves with the definition of depredation being any attack or attempted attack on humans or domestic property, pet or livestock. **Response:** The Reintroduction Project is obligated by law and policy to address (provide relief for) depredation issues, but it is also legally compelled to help pursue recovery, which requires growth in the wild wolf population. Thus, a “one strike and you’re out” policy would be inappropriate. Conflicts between wild wolves and livestock are inevitable, but most should be addressed through management of the overall situation, not just management of the offending wolf. More than half the Mexican wolves that have been translocated after depredations subsequently produced pups in the wild. As noted in the Technical Component, the success rate for wolves translocated after being involved in depredation was twice the success rate for wolves released directly from captivity. This indicates that depredating wolves (and perhaps some non-depredating wolves) relocated to a different setting may significantly contribute to achieving the Reintroduction Project’s population objective. Interventions such as hazing, fladry, movement of wolves or livestock, and removal of individual pack members can also be employed to increase the likelihood of successful translocation of wolves that were previously involved in a depredation situation. See also SOP 13.0: Control of Mexican Wolves.
311. **Comment:** No funding for training of WS in livestock depredation investigation procedures. **Response:** See C/R 19, 170, 274, 292, 399, and 406 regarding budget and training. Although its annual Congressional appropriations continue to decrease, WS has been able to reallocate other appropriated funds in order to sustain essential depredation investigation training for other cooperating agencies as well as for its own employees.
312. **Comment:** No investigation or confirmation of hundreds of missing calves or cattle have taken place. **Response:** The 5-Year Review includes all depredation information reported to the IFT, except as noted in C/R 399-406 and 408 regarding SCAR. AMOC has no

information supporting a claim that hundreds of missing calves or cattle in the BRWRA have not been investigated. See also C/R 166, 275, 291, 432, and 449.

313. **Comment:** AMOC determines SOPs for investigations and should recuse themselves from investigating livestock kills and dog attacks. **Response:** AMOC sets policy for the IFT and oversees IFT activities, but typically is not directly involved in operational IFT activities. Thus, AMOC approved SOP 11.0: Depredation on Domestic Livestock and Pets consistent with the Final Rule's guidance on livestock and dog depredation, but the IFT carries out the investigations. In accordance with SOP 11.0, WS IFT members have the lead on conducting wolf depredation investigations. Other IFT members are available to help WS conduct effective, timely investigations. See also C/R 432 and 449.
314. **Comment:** AMOC forces WS to use AMOC procedures for livestock depredation investigations. **Response:** See C/R 313, 432, and 449.
315. **Comment:** WS are not allowed to trap problem or depredating wolves and USFWS refuses to allow WS to trap for problem wolves but makes WS responsible for confirming depredations as per AMOC and USFWS procedure for investigations. **Response:** See 11, 46, 253, and 275 on nuisance and problem wolves. See C/R 220, 274-275, 291-292, 297, and 299 on depredation investigations. See also SOP 13: Control of Mexican Wolves, which delineates AMOC's step-wise progression in procedures for controlling nuisance and problem wolves. WS IFT members have the lead in addressing problem wolf issues in the field. Other IFT members assist them, as necessary and available.
316. **Comment:** Livestock depredation removals are seldom done any longer, instead when there is a major livestock conflict USFWS removes the wolves for management purposes allowing them more flexibility to re-release problem animals. **Response:** See C/R 315 et seq. Permanent and other wolf removals will continue to occur in accordance with SOP 13.0: Control of Mexican Wolves.

## **K. Human/Wolf Interactions**

Note: As AMOC was completing the 5-Year Review, an event occurred in Canada that might be highly relevant to the subject of human-wolf interactions in North America. On November 8, the body of 22-year-old Kenton Joel Carnegie, a 3<sup>rd</sup>-year survey crew intern with an energy exploration company, was found in northern Saskatchewan. Dr. Paul Paquet (personal communication, December 13, 2005) advises AMOC that a final Provincial Coroner's report is expected in January 2006, at which time it also will be made public. However, Dr. Paquet, a wolf expert well known to the Southwest as author of the 3-Year Review "Paquet Report" (Paquet et al. 2001), advises AMOC that preliminary investigation by law enforcement officials, and his own ongoing investigation for the Provincial Coroner, indicate a pack of four wild wolves might have attacked and killed the young man. However, death by wild dogs, with subsequent scavenging by wolves, had not yet been ruled out as this account was being written.

If wolves are proven to have killed Mr. Carnegie, it would be the first documented human death attributed to healthy wild (free ranging) wolves in North America in at least 100 years (see McNay 2002a and 2002b). Canadian experts and officials speculate that several factors might have contributed to the attack. In particular, huge expansion of exploration and mining for oil, gas, precious metals, etc. has resulted in an explosion of “wildcat” dumps (i.e. unregulated dumps), which are well known to attract predators (and wild dogs) and to result in increased risk of negative human-wildlife interactions.

The excerpted article below from the International Wolf Center is the most recent and thorough account available as to what might have occurred. It is included here in the 5-Year Review to ensure that it becomes part of the context for considering the issue of human-wolf interactions.

Regardless of the final outcome of the investigations, the fatal incident and increasing prevalence of habituated wolves and wild dogs in Saskatchewan underscore the need to take precautions in minimizing risks, including: ensuring that garbage dumps (regulated and not) are maintained in such a way that bears, wolves, wild dogs, and mountain lions do not become habituated to them; never feeding free-ranging predators, especially not at arm’s-length distances; never providing food to domestic dogs or other domestic animals in such a way that predators might be attracted, and maintaining ready access to deterrent sprays and other protective devices in case of approach closely; etc. See Fritts et al. (2003) for broader discussion of topics related to dynamics between wolves and humans.

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*Four Wolves Suspected in Man’s Death in Remote Area of Canada*

By Jess Edberg, Information Specialist -- International Wolf Center, 12/12/2005

An apparent wolf attack has been determined as the cause of death for 22-year-old Kenton Joel Carnegie, whose body was found on Tuesday, November 8, at Points North Landing near Wollaston Lake in the Canadian province of Saskatchewan, about 450 kilometers northeast of La Ronge.

The main theory in this case is that Carnegie was attacked by a pack of four wolves seen in the area for some time that were showing signs of losing their natural fear of humans (an indication of habituation to humans), according to Saskatchewan Environment and Resource Management (SERM) wolf biologist Tim Trottier, who is investigating the case. There is also evidence that Carnegie and others had recently been interacting with the wolves at close range.

Canadian wolf biologist Dr. Paul Paquet has also been investigating the incident and says that evidence points to approximately four wolves, based on blood and tracks present in the area. Investigating conservation officers, given permission to kill any wolves suspected in the incident, have killed two wolves from the area. Dr. Paquet’s examination

of the animals showed cloth, hair and flesh in the large intestine that resembled human remains and are being tested for human origin.

Paquet said that the wolves suspected of attacking Carnegie probably had prior human contact and that the attack was likely spurred by the animals' interest in discarded food or garbage.

"I suspect that ultimately we will find that these are garbage-habituated wolves that are either being inadvertently fed or intentionally fed in the area," he said. "That is the common thread to most wolf attacks that I've investigated."

If wolves are proven to have killed Carnegie, it will be the first documented case of healthy, wild wolves killing a human in North America.

Does this mean that all wolves should be considered a serious threat to humans living in or visiting wolf country? Not necessarily. Wolves and other wild animals have always been unpredictable. Bears, mountain lions, bison, moose and even domestic pets have been known to present a serious threat to people under certain circumstances. The danger may lie more in how we as humans behave in the presence of a wild animal and not the other way around. Tens of millions of human visitor days have been logged in wolf country without wolf attacks.

Like other wild and domestic animals, wolves are responsive to the actions of humans. Humans have a remarkable ability to influence and shape animal behavior, whether that involves a black bear harassing campers for food after being fed by an eager photographer, a raccoon rummaging through your trash can when the lid is not secured, or a chickadee feeding contently at a backyard feeder while you watch through your kitchen window.

Our actions have the potential to cause immediate and sometimes dangerous behavioral changes in wildlife. Wolves are probably no different from a chickadee in how susceptible they are to habituation. By avoiding contact with wildlife or providing negative stimulus in the presence of a bold animal (yelling, banging pots and pans, throwing sticks), also known as aversive conditioning, we may be able to avoid habituating animals to us.

Could this regrettable event have been prevented with appropriate waste disposal and aversive conditioning by those encountering wolves? We cannot know; we can simply be aware of the potential danger of habituating wild animals to us and take action against it in the future.

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- 317. **Comment:** The issue of teaching wolf aversion to humans needs to be addressed in the 5-Year Review. **Response:** SOP 13.0: Control of Mexican Wolves provides guidelines that could help avoid or reduce nuisance behavior of wolves and some wolf/human conflicts.

SOP 3.0: Outreach addresses the need and various mechanisms (e.g. presentations, brochures, posters, website postings) by which to provide such information to the public, especially those who live or recreate in the BRWRA. This was not adequately highlighted in the draft 5-Year Review, but will be emphasized in the final document (see also the Note, immediately above).

318. **Comment:** Wolves should be removed from residents who fear and don't like wolves. **Response:** Fear or dislike of wolves is not sufficient cause for wolves to be removed. The Final Rule states that a person may take (kill) a Mexican wolf in self defense or in the defense of others. In addition, if the USFWS, or an authorized agency, determines that a wolf presents a threat to human life or safety, USFWS or the authorized agency may kill it, capture and euthanize it, or place it in captivity. SOP 13.0: Control of Mexican Wolves provides guidance on managing "nuisance" wolves. It calls for escalating response levels until the nuisance activities have ceased. See also C/R 11, 253, 275, and 278 on nuisance and problem wolves.
319. **Comment:** Work with State and Federal veterinary offices to guarantee that livestock operators will be financially protected should wolves carry and transmit FMD and anthrax to the U.S as it has become fact in Russia/Eurasia. **Response:** The last documented occurrence of FMD in the USA was in 1929 (see C/R 320-321, 324-325, and 421). To date, AMOC is not aware of any credible publication or other report that identifies wolves as a vector of FMD or anthrax. We are aware, however, that a Russian linguist, Mr. Will Graves, is translating Russian literature on wolves in Russia for a book that may be relevant to this Comment. We will review the book when it has been published. Regardless, responsibility for compensation due to FMD or anthrax related livestock losses would be at the discretion of Congress, and likely be administered through WS Veterinary Services. Further information on Veterinary Services can be found at <http://www.aphis.usda.gov/vs>. Additionally, for informational purposes only, AMOC notes that:
- a. FMD is a highly contagious but usually nonlethal disease of ruminants, camels, and swine that is characterized by vesiculation of the oral mucosa of the skin and of the feet (Thomson et al. 2001). In Africa, African buffalo (*Syncerus caffer*) play a pivotal role in FMD as a sylvatic maintenance host (Bengis et al. 2002). Outside of Africa, FMD is primarily maintained in domestic ruminants, particularly cattle, but wildlife occasionally are infected incidentally by spill over (Bengis et al. 2002). In the carnivore family, only two species of bears (grizzly bear [Grosso 1957] and Asiatic black bear [Neugebauer 1976 as cited in Hedger 1981]) have been identified as contracting FMD (Hedger 1981).
  - b. Anthrax is an infectious and often fatal disease of domestic and wild animals and humans that is caused by the endospore-forming bacterium *Bacillus anthracis* (Gates et al. 2001). Anthrax is global in distribution and is endemic to North America. In the USA, there are two endemic areas: western Texas and adjacent Mexico, where outbreaks are reported sporadically in sheep and white-tailed deer; and northwestern Mississippi and adjacent southeastern Arkansas, where outbreaks occur primarily in cattle. In general, herbivores (e.g. cattle) are much

more susceptible to anthrax than are carnivores. Carnivores are more likely to develop chronic anthrax, which is rarely fatal. During an epidemic, carnivores may eat large quantities of contaminated meat without developing anthrax. In a table of species susceptible to anthrax (Gates et al. 2001), several species of African canids were listed but no North American canid has been identified as being susceptible to anthrax. Gates et al. (2001) also included the following statement: "In an epidemic among bison in northern Canada, workers observed numerous apparently healthy wolves *Canis lupus* scavenging on carcasses, even though they had consumed so much contaminated meat that their abdomens were distended almost to the ground and they could barely run. No dead wolves have ever been found during anthrax epidemics in northern Canada."

320. **Comment:** Dr. Lawhorn of the Dept. of Homeland Security has said that the damage caused by FMD if introduced into the American cattle industry would be unquantifiable. Will the USFWS review all the Russian scientific literature dealing with this information? (comment predicated on a draft book regarding the truth about Russian/Eurasian wolves in which the author indicates wolves are the stimulators in carrying and mechanically transmitting highly contagious and infectious diseases such as foot and mouth and anthrax and questions whether due diligence been done in the lower 48 America by the USDA). **Response:** AMOC and the IFT make every reasonable effort to review the best available science and information pertaining to wolves, and incorporate it into the Reintroduction Project as necessary and appropriate. See also C/R 319.
321. **Comment:** Will the Governors of NM and AZ, the State legislators and appropriate agency personnel be provided all the scientific peer reviewed research performed by State and Federal veterinary authorities on the possibility of FMD outbreak and wolves being the carriers of the disease? **Response:** The Governors of AZ and NM receive briefings from their respective Department of Agriculture on diseases issues such as FMD. State legislatures are similarly advised on such issues, as necessary. AMOC operates the Reintroduction Project under direct and indirect guidance from various Federal, State, and private veterinarians, including any advice from the two State Departments of Agriculture. All reasonable disease concerns have been and will continue to be considered in developing and revising SOPs for the Project. However, thus far the possibility of wolves as carriers of FMD has not been sufficient to warrant modifying any SOPs for this Project. See also C/R 319 and 320.
322. **Comment:** Wolves as carriers of rabies needs to be addressed since most wolves in the wild are not vaccinated and the vaccine used on the collared wolves has been determined by the USDA to not be effective on wolves. This will greatly increase as wolves are allowed to range near Mexico where rabies is common. **Response:** The rabies virus is in the genus *Lyssavirus*, which has a near global distribution (World Health Organization 1994). Lyssaviruses are well adapted to particular mammalian species. Striped skunks, gray foxes, and bats are considered the primary rabies vectors (reservoir species) in the Southwest. All of these species are infinitely more abundant in the Southwest than are wolves. Moreover, mammalian species other than skunks, foxes, raccoons, bats, and

coyotes in North America are normally considered dead end hosts that do not serve as vectors. In other words, wolves are dead-end hosts for rabies and unlikely to transmit the disease to any other animal, including humans. Rabies is more likely to impact wolf ecology by decimating packs (Ballard and Krausman 1997; Chapman 1978; Theberge et al. 1994), due to their social habits and den use (Weiler et al. 1995). Rabies vaccines approved for use in domestic dogs have been used in captive wolves for many years, and more recently in the red wolf and Yellowstone gray wolf efforts (Federoff 1999). Regardless, the Blue Range Reintroduction Project vaccinates all captive wolves prior to release to the wild, and all those captured in the wild, for canine distemper, adenovirus, coronavirus, parainfluenza, parvovirus, and rabies. All these vaccines are approved for domestic dogs and can legitimately be used off-label for wildlife under veterinary direction. These vaccines are effective in preventing diseases in wolves, but wolves have not been clinically challenged by the diseases following vaccination. Although WS has not approved rabies and canine distemper vaccines for on-label use for wolves (Kreeger 2003), captive and free ranging wolves develop rabies antibodies when given inactivated canine rabies vaccine (Federoff 1999). The bottom line is that wolves have nowhere been shown to be significant disease vectors (for rabies or other diseases) in comparison to other wild or in comparison to domestic mammals typically present in a wolf-management area.

323. **Comment:** Significant issues concerning public health must be addressed and demands placed upon the agencies as to response to an impending threat to public health. Wolves are being introduced into a rabies endemic area. It is a proven fact that wolves can travel 140 linear miles and this places the Mexican border well within their range. Mexican feral dogs and coyotes are currently rabies epizootic and manifest exposure to Mexican wolves. There is no scientific evidence to prove efficacy of wolf vaccination; however, there is evidence of vaccination failure in wolves. Only a portion of reintroduced wolves have been rabies vaccinated. There is no known vaccine approved or recommended by WS or the American Veterinary Medical Association. Additionally, the AVMA also concluded that translocation of known terrestrial rabies reservoir species should be prohibited. The Mexican wolf is such a species. There are no known measures to control rabies zoonotic outbreaks. A single rabid wolf would result in a rabies disaster. The program should be terminated prior to a real imminent hazard of wolf rabies infections of humans directly or via domestic animal intermediaries. **Response:** See C/R 322.
324. **Comment:** Will WS/USFWS do the studies and take appropriate action to guarantee that an outbreak of FMD will not take place in the United States as it has recently occurred in Russia? **Response:** See C/R 319, 320, and 321. Addressing FMD is not within the scope of the 5-Year Review or AMOC's authorities or management obligations. Preventing foreign animal diseases in livestock at the Federal level is the responsibility of WS Veterinary Services. Further information on Veterinary Services and FMD can be found at <http://www.aphis.usda.gov/vs>.
325. **Comment:** Are the State and Federal game and fish personnel aware that if an FMD outbreak occurs, the quarantined area or "hot spot" will be locked down for 30 mile

- radiuses indefinitely by the Department of Homeland Security/USDA? **Response:** See C/R 319-321 and 324.
326. **Comment:** When problems come up both wolves and humans should be discouraged from the behavior which led to the problem. It does no good to kill “problem” wolves when “problem” people continue to act irresponsibly. **Response:** See C/R 11, 253, 275, 278, and 318 on nuisance and problem wolves.
327. **Comment:** The report does not address the enormous amount of fear, terror, and stress wolves engender. **Response:** See C/R 593. AMOC cooperators do not have the specialized expertise necessary to assess psychological/social impacts relating to human fear and stress that might be attributed to presence of wolves or much more common predators that exist throughout the BRWRA, including black bears and mountain lions. However, AMOC can (and will) continue to consider and provide the most accurate, complete information available regarding real or perceived stress-related impacts of Mexican wolves, and any means by which to help alleviate such impacts. As noted elsewhere (see C/R 72, 175, 318, 328, 330, 332, 344, and 415), the “best scientific” information available strongly indicates that fear such as is noted in this Comment is not warranted. Wolves simply do not constitute an appreciable (statistically significant) threat to human safety or health. Ultimately, though, AMOC realizes that fear is not necessarily a fact, data, or logic-based emotion, and absence of a factual or logical foundation for fear does make the personal impact any less “real.” Fear is a very personal thing: some people will fear wolves no matter what the “facts” are; others will not fear wolves no matter what the “facts” are.
328. **Comment:** Wolves are a threat to our and our children’s safety needs to be evaluated in the 5-Year Review. **Response:** As of September 30, 2005, there were no documented accounts of free-ranging (wild) wolves killing people (adults or children) in North America (see McNay 2002a and 2002b; L.D. Mech, personal communication, October 5, 2005). Although attacks by wild wolves on humans do occur, a wolf attack of any kind is an extremely rare event in North America. Most attacks in North America have involved rabid wolves, wolves habituated to humans (e.g. being fed by humans at campgrounds or near settlements), or wolves that were being beaten or which someone was trying to kill (and the “attacks” were thought to be the wolves’ attempts to get away). See also C/R 175, 318, 327, 332, 415, and 593.
329. **Comment:** Human safety is the main reason this program should be terminated. USFWS has recorded two pages of human encounters in the 5-Year Review and left out at least another page worth that they seem to have forgotten about or were not reported. **Response:** See C/R 72 regarding possible causes for terminating the Reintroduction Project and C/R 327 and 328 regarding concerns about human safety. With regard to the number of human encounters during the 5-Year Review period (1998-2003), all 11 incidents of wolves “approaching” humans in the BRWRA that were reported to the IFT were incorporated into a Project database and reflected in the Review. No documented reports were withheld or have been “forgotten.” AMOC is aware that other people claim

to have had such encounters, but, for various reasons (e.g. see C/R 278 and 346) have apparently declined to submit reports. We again encourage all persons to report wolf-human interactions within the BRWRA, so incidents can be investigated when appropriate to do so. Absent such information, AMOC is unable to fully consider the scale and significance of this issue in adaptively managing the Project.

330. **Comment:** Mothers in the Catron County area have seen wolves in their yards and keep their children in their homes when they should be allowed to at least roam their yards or stand at bus stops. **Response:** Observations of wolves in proximity to areas or structures occupied by humans do not of themselves mean the wolves might attack humans or domestic animals. Although some situations in the BRWRA have caused concern among local residents, no incidents of Mexican wolves attacking children have been documented anywhere in AZ or NM. Even so, humans living or recreating in areas occupied by predatory species of wildlife (especially bears and lions, which have occasionally attacked children in the Southwest) should take appropriate precautions, and be thoroughly educated about prevention measures such as those described in SOP 13: Control of Mexican Wolves and outreach materials available from the IFT. See C/R 332.
331. **Comment:** USFWS now tells local inhabitants not to allow their children to have a dog to protect them from coyotes, lions and bears because the dog will attract wolves. **Response:** AMOC does not tell anyone not to own a dog or another pet, but does provide information about relevant risk-reduction measures. In some circumstances, the presence of dogs can increase the chance of a close encounter with wolves. See also C/R 330.
332. **Comment:** The USFWS has admitted that children's voices attract the Mexican wolf. **Response:** McNay (2002a and 2002b) referenced six wolf/human-child interactions in Alaska and Canada (but none in the USA), none of which indicated that a child's screams or voices might have elicited the interaction. When AMOC asked about this Comment, L.D. Mech (personal communication, October 5, 2005), one of the world's most respected wolf experts, replied that he was not aware of any specific instances in which the voices of children could be specifically tied to a wolf attack on a child. However, he also stated, "if small children are in an area where large predators occur, be they bears, mountain lions, bobcats, coyotes, domestic dogs, or wolves, it is only prudent, no matter how unlikely an attack, that adults maintain an extra level of vigilance." See also C/R 330 and 331.
333. **Comment:** USFWS has gone so far as to try to build an 8 foot fence for a woman with 4 small children because of Mexican wolf encounters. **Response:** The Comment is not accurate. The referenced situation is this: Defenders is providing materials to a rural family to construct a 6-ft high fence to protect various animals (e.g. chickens, horses) from possible depredation by wolves. Defenders has specifically advised the family, which is contributing labor to the project, that allocation of proactive conservation funds to this project does not mean Defenders believes any humans, adult or otherwise, are at risk due to presence of wolves.

334. **Comment:** USFWS said in the EIS that Mexican wolves were shy and would avoid people, they now say that Mexican wolves are curious and intelligent and will follow people. **Response:** See C/R 175, 318, 327-328, 330, 331-332, 415, and 593.
335. **Comment:** Who is accountable if a Mexican wolf attacks and kills or injures a person? Current rules hold no associated agency responsible. These agencies have forced free roaming predators upon the populace with zero burden of responsibility. **Response:** A liability claim against a cooperating agency would likely be pursued through the appropriate State or Federal legal process. Federal claims would initially be considered within the Federal Torts Claim Act (FTCA), which provides a limited waiver of the Federal government's sovereign immunity when its employees are negligent within the scope of their employment. Under the FTCA, the Federal government can only be sued 'under circumstances where the United States, if a private person, would be liable to the claimant in accordance with the law of the place where the act or omission occurred.' 28 U.S.C. S 1346(b). Thus, the FTCA does not apply to conduct that is uniquely governmental, that is, incapable of performance by a private individual.
336. **Comment:** Mexican wolves kill and maim for pleasure and this is documented in the historic book "Slash Ranch Hounds." For people to think otherwise is utterly unfathomable. **Response:** Human emotions and feelings are often used in describing wolf behavior, especially in popular publications such as the G.W. "Dub" Evans hound book referenced in this Comment. "Slash Ranch Hounds" (1951; reprinted by High Lonesome Books in 2003) is an enthralling personal perspective by someone who experienced Mexican wolves first-hand as they were vanishing from the landscape. It includes a brief chapter entitled "Wolf Cunning." Much of the chapter describes interactions of wolves and ranch or hunting dogs. It is not, nor does it pretend to be, a scientific analysis or description of wolf behavior. Neither the Evans perspective (i.e. wolves are evil and should be exterminated) nor the diametrically opposed perspective evident in the popular literature (i.e. wolves are heroic and should be saved at all costs) advances adaptive management, which must be based on a more diverse reality, without judgment about perceived morality or lack thereof. Simply put, wolves are not humans; attributing human values and emotions to them fails to recognize their distinctness as a species and creates a shaky foundation for management.
337. **Comment:** Page 70, Technical: The description of "Event 1" is not entirely accurate. The dog was not "in camp" when it was attacked by the wolf and the wolf was not "in camp" when it was shot. These events took place some distance away from the actual camp site. **Response:** The text has been changed to read "Wolf 156 was shot by a camper who feared for his family's safety when the wolf was in the area of their camp and attacked their dog."
338. **Comment:** Appendix I, Wolf/Human Interactions, Technical: Incidents are missing and there are discrepancies. For example, #23 – is this August 23, 2002 incident with permittee or the incident later on with Wildlife Service personnel? Also, on August 15, 2002 there was a human interaction when a permittee witnessed a wolf eating livestock

- alive. **Response:** Incident 23 refers to the incident involving WS personnel. Based on discussion with the permittee, a wolf/human interaction event was added to reflect the incident (see Event 23 in the Wolf/Human Interaction Table). Also, based on the discussion with the permittee, we concluded that the August 15 incident was not a wolf/human interaction because it did not involve wolves interacting with the permittee. It was a depredation incident, in which the permittee observed wolves attacking and eating a live Hereford cow. The wolves were chased away and WS personnel initiated a livestock depredation investigation.
339. **Comment:** The human encounter section is incomplete and is missing some of the more interesting incidents. Event 27 is incomplete. The encounter the young woman experienced lasted 10 minutes. That same evening both wolves followed my husband who was on foot driving cattle down a road. He was stuck between the cows and the wolves for an hour. An IFT employee also suffered somewhat threatening behavior by the same wolves the same night and that should be included too. **Response:** The IFT report on Event 27 did not include a timeframe nor did it indicate the wolves were following the rancher. Based on discussion with the Commenter, we made several changes in the text. We inserted a timeframe in the memo for this event (now Event 28) to reflect that it occurred for 10 minutes. The IFT report indicated the rancher had driven up on the herd of cows and observed two wolves attempting to get at some of the calves. As the cattle were herded toward the rancher's private land, the wolves followed the herd down the road. This information is now presented as Event 29 in the Wolf/Human Interaction Table. The IFT member who responded to the incident did not feel threatened by the wolves. The only wolf behavior the IFT biologist observed was directed toward the cattle in the area. The biologist shot rubber slugs and cracker shells at the wolves when they approached the cattle. The wolves left the immediate area, and were heard howling shortly afterward.
340. **Comment:** I have had dozens of close encounters I could write about between myself and my employees and the wolves (numerous accounts detailed). These wolves have no fear of humans and are handled and followed too much. **Response:** The person who submitted this Comment included two detailed incidents of Wolf/Human interactions that occurred after the data cutoff (i.e. 1998-2003) for the 5-Year Review analysis had passed. The IFT is trying to contact the individual to get more information about these events, and any other events the person might have experienced during the 5-Year Review timeframe. When the information is obtained, the IFT will review it and the database will be updated appropriately. AMOC encourages all persons to report incidents of wolf-human interactions in the BRWRA to the IFT, so they can investigate when appropriate and maintain an accurate incident database. Mexican wolves are now managed at all stages of the reintroduction process to minimize contact and habituation with humans. This includes stringent limitations on personnel that wolves contact within remote captive facilities, and field procedures that minimize direct contact between wolves and IFT staff. Aversive conditioning is also used, when appropriate (see SOP 11.0: Depredation on Domestic Livestock and Pets, and SOP 13.0: Control of Mexican Wolves).

341. **Comment:** Page 23, Table 2, Administrative: There have been 2 lethal controls, not 1. **Response:** The draft 5-Year Review presented information for 1998 through 2003, during which time only one lethal control occurred (in 2003). Now there have been three lethal control actions: one each in 2003, 2004, and 2005.
342. **Comment:** USFWS should adopt the 5-Year Review's recommendations for improving the Mexican wolf program by changing the practice of eliminating wolves from "areas where they conflict with livestock or humans," to placing greater emphasis on innovative approaches to minimizing opportunities for such conflicts. **Response:** See C/R 224, 237, 257, and 265.
343. **Comment:** Wolf/Human interactions (Page 18): We believe people have the right to go into the forest with or without their dog present and work their cattle if that is their business or go for a pleasure ride or legal hunt. We also believe they should be able to take food for themselves if they camp out and it should not be their fault if a wolf comes into their camp attempting to get the food. They should not have to wait until their lives are in complete jeopardy to legally do something about it. **Response:** The Reintroduction Project does not regulate whether people take dogs afield while working, recreating, or hunting. However, as noted in our outreach efforts, the presence of dogs does increase the likelihood of a close, but not necessarily a threatening, encounter with wolves. AMOC and the IFT also acknowledge that in most wolf-dog encounters, the dog will likely get the short end of the stick. However, we note that presence of many other species of wildlife (e.g. lions, bears, rattlesnakes, scorpions) also constitutes a danger to dogs, especially free-ranging dogs. We also note that dogs set loose to pursue lions or bears probably have a greater risk of encountering a wolf than do unleashed dogs. But, these collective risks do not deprive humans of the opportunity to make their living within or enjoy a recreational visit to the BRWRA, with or without the company of their dogs. Each person must assess any risk associated with a dog's presence in an area occupied by wolves, just as they must choose to address or not address any risks associated with bears, mountain lions, coyotes, lightning, hypothermia, etc. Accordingly, AMOC will continue to provide educational information to livestock owners, hunters, and various other publics about living and/or recreating in "wolf country." For areas consistently used by wolves, this often includes posting appropriate cautionary signs and providing information in hunting and recreation regulations and with permits or hunt tags. It also includes IFT outreach presentations in Hunter Safety Courses, to civic and other groups, and in campgrounds and day-use recreation areas throughout the BRWRA.
344. **Comment:** If a wolf comes to the home place of a dog and the dog acts as a watch dog growling and barking at the intruder, this should not be considered "provoked by the dog." Instead, it should be classified as the wolf being the intruder and provoking the altercation. **Response:** Human/wolf interactions were classified in the draft 5-year Review according to a publication summarizing reported wolf attacks in North America (McNay 2002a and 2002b). Because of the close relationship between wolves and dogs, wolves tend to treat dogs as competitors and potential intruders in their territory. A dog is also likely to defend its territory when a wolf approaches. Thus, if a wolf conflict occurs

in the presence of a dog, McNay (2002a and 2002b) typically considered it “provoked by the dog.” Such encounters are dangerous for the dog, and precautions should be taken to protect pets in occupied wolf areas. See also C/R 343.

345. **Comment:** Page 70, Technical: There are 2 incidents not mentioned in the Wolf/Human Interaction section. May 5, 1998 when a permittee saw wolves circling and lunging toward his cattle he was checking on. When he approached the cattle he hollered to scare the wolves off. The larger wolf came angling toward him. He shouted, walking toward them but they kept coming, leaving slowly only after he fired shots in the air. May 8, 1998 the Campbell Blue male killed a female cow dog among 3 houses behind what was thought to be a secure fence while residents were there. **Response:** The IFT has no record of the May 5, 1998 incident. The IFT database does not indicate the May 8, 1998 incident involved a Wolf/Human interaction, so it was not presented in the 5-Year Review. However, a female cow dog killed on May 8, 1998 was investigated and confirmed by WS. The IFT is still trying to contact this individual to get more information about these events, and will update the IFT database appropriately when it is obtained.
346. **Comment:** Recreational campers are refusing to inform or report interactions they are having with wolves for fear of being on the suspect list if a wolf showed up dead. How should these incidents be handled? Most of this is happening in the Buffalo Crossing area and also Beaver Creek and Hannagan vicinities. More and more people are coming to us local ranchers every year with these stories but they will not tell the authorities so no report, no wolf/human incident. Also, usually no dogs are involved. **Response:** When a wolf is found dead, the subsequent investigation (see SOP 12.0: Mortality and Injury Response) focuses where the evidence leads. Someone who has previously reported a wolf in that area might be contacted for further information, but that does not mean they would be a suspect in the death. Withholding such information has no up-side. Accurate, timely information on wolf-human incidents is essential to designing appropriate management responses, and to ensuring sufficient resources are available to provide appropriate response(s). See also C/R 278 and 329 on non-reporting.
347. **Comment:** While we strongly agree that there should be no restrictions to wolf movements throughout the geographic scope of the SWDPS, we strongly disagree with the part of recommendation number 1 (Technical) that would exclude areas from wolf occupation where wolves “conflict with livestock and humans.” Most of the SWDPS comprises areas where wolves and livestock could conflict. We request the language be revised to indicate that while conflicts with livestock and humans must be addressed and resolved, they will not automatically preclude wolf recovery in a given area. **Response:** The 5-Year Review and ongoing adaptive management of the Reintroduction Project will continue to focus on finding and implementing incentives for voluntary actions by local stakeholders that would help accommodate presence of wolves by reducing conflicts such as livestock depredation. Potential conflicts with humans and/or livestock will continue to be considered in evaluating releases and translocations. Significant conflicts may be decisive in avoiding a particular area, but lesser conflicts may be unavoidable, given that humans and livestock are so widely distributed within the BRWRA.

348. **Comment:** Farmers, ranchers, and outdoorsmen should adjust to allow for the presence of wolves. **Response:** Decades of agricultural and recreational experience in areas of Minnesota and the Northern Rockies that are occupied by humans and wolves affirm that farmers, ranchers, outdoor recreationists, and indeed the full spectrum of humanity can adjust to allow for presence of wolves, if they choose to adjust. This does not, however, change AMOC's obligation to manage Mexican wolves as necessary to integrate their presence into the Southwest's existing mosaic of public, private, and Tribal lands.
349. **Comment:** Livestock owners, hunters, and others who have traditionally taken their dogs with them to either make their living or just enjoy a recreational visit to areas in the wolf recovery areas are now deprived of that right without putting their dogs in danger. **Response:** See C/R 343.
350. **Comment:** A new rule provision is needed that all dogs in the BRWRA whether resident or owned by visitors must be controlled by physical restraint at all times. Dogs used in livestock operations are the exception. **Response:** AMOC will not recommend dog-control rules, regulations, policies, or ordinances beyond those already implemented by the appropriate County, Tribal, and/or local government, or beyond the local closures occasionally (and temporarily) implemented through the USFS for den sites and/or rendezvous sites. Leashing dogs in wolf country is often advisable for several reasons, but AMOC cannot require it and will not recommend regulations to require it for all circumstances. See also C/R 343.
351. **Comment:** The project has released wolves near outfitting businesses but provides no plans to mitigate attacks on hunting hounds. **Response:** See C/R 37, 55, and 223-241 on compensation (mitigation). Most wolf releases have been in relatively remote areas, away from human residents. However, outfitters also often use these areas. Wolves, outfitters, and hunters are part of the multiple-use National Forest landscape. The Final Rule does not consider wolves that attack hunting/ranching dogs on public land to be problem animals, but does consider wolves that attack dogs on private land twice within a year to be problem animals. Defenders may compensate for loss of a ranching dog, but does not compensate for loss of a hunting dog.
352. **Comment:** Release locations are far too close to communities and to calving cattle. **Response:** Releases and translocations are carried out in the most remote areas available, but other factors must also be considered. SOP 5.0: Initial Wolf Releases and SOP 6.0: Wolf Translocations call for release/translocation sites to be: (1) five or more miles from a town, (2) three or more miles from a dwelling occupied year-round, (3) evaluated relative to presence of livestock within five miles of the release/translocation sites, and (4) as far away as possible from active livestock calving pastures. Wolves can travel great distances relatively quickly, and cattle calf year-round in much of the BRWRA. Thus, wolves can travel to areas occupied by humans or calving cattle from anywhere in the BRWRA. Although most wolves tend to shy away from human habitations, not all do.

Undesirable contacts are thus inevitable, and will likely increase as more humans move to the BRWRA.

353. **Comment:** USFWS and cooperators refusal to listen to recommendations of affected public over questionable release areas have led to wolf/human conflicts. **Response:** See C/R 352. AMOC developed SOP 5.0: Initial Wolf Releases and SOP 6.0: Wolf Translocations specifically to establish consistent processes by which to ensure that all public comment is carefully considered in reaching decisions on new release and translocation areas. Although some release and translocation sites that AMOC approves might ultimately prove to be less than entirely successful, as some already have from any of several perspectives, they will always represent the best overall choice based on the selection criteria, all the comment received, and all the relevant available information.
354. **Comment:** Re-release of problem wolves is now an SOP. **Response:** Translocation of nuisance and problem wolves has occurred in the past and will occur in the future, per guidelines within SOP 6.0: Wolf Translocations and SOP 13: Control of Mexican Wolves. Many translocations have resulted in pairs that subsequently contributed to population growth through reproduction. As discussed in the 5-Year Review, animals with a depredation history seem to be less prone to depredate after translocation (see C/R 131, 147, and 269). Furthermore, most documented nuisance situations are caused by wolves with limited time in the wild. This behavior generally ceases after about three months in the wild.
355. **Comment:** Problem animals are seldom removed unless there is intervention by higher authority. **Response:** See C/R 11, 46, 253, 275, 278, and 318 on nuisance and problem wolves. AMOC believes that sometimes the cooperating agencies have not responded appropriately to problem situations. Some responses lacked timeliness, or were not sufficiently rigorous. The Aspen Pack situation in the Blue (late 2004) probably brought such concerns to a head within AMOC. As a result, problem animals are now removed in accordance with SOP 13.0: Control of Mexican Wolves.
356. **Comment:** NGO cooperators are allowed to participate in decisions to expunge the record of a problem animal for re-release of problem wolves. **Response:** See C/R 49, 244, 245, 247, 455, and 456: NGOs do not have cooperator status within AMOC, and do not participate in making decisions about possible re-release of a nuisance or problem animal. Wolves are managed according to SOPs; criteria for re-release of wolves are set forth in SOP 6.0: Wolf Translocations and SOP 13.0: Control of Mexican Wolves. According to SOP 13.0, if an animal has been involved in three depredation incidents, it must be permanently removed from the wild in AZ and NM. However, if a wolf has been involved in fewer than three depredation incidents, it might, if more than 365 days have passed since the last incident, be considered a “new” wolf. Ultimately, however, the record of a wolf follows the animal throughout its life, and at no point in time is any information “expunged” from its record.

#### L. Recovery Planning

357. **Comment:** The 1982 Recovery Plan needs to be updated now to address ongoing management and future reintroduction (not recommended as the rule stands now). The BRWRA will not meet the 100 goal as the way the program stands now. **Response:** The structure, function, and activities of the SWDPS (Gray Wolf or Mexican Wolf) Recovery Team are outside the scope of the 5-Year Review. Concerns regarding the Recovery Team should be addressed separately and directly to the USFWS, which convenes the Team, defines its purpose, and enables its work on recovery issues. See also C/R 64, 85-87, 96, 457, and 463 on SWDPS Recovery Team issues. However, given that the goal of achieving at least 100 wolves in the BRWRA is a Reintroduction Project goal, not a recovery goal, but still must be placed in a recovery context, AMOC has made a recommendation regarding convening a Recovery Team to complete a Recovery Plan (see the AMOC Recommendations Component). See also C/R 85-88, 103, 106-109, and 368 on possible boundary changes.
358. **Comment:** The 1982 Recovery Plan needs to be revised to include downlisting and delisting criteria. **Response:** See C/R 357.
359. **Comment:** How was the 100 wolves as a reintroduction goal established? This information is not provided in the report. **Response:** See C/R 64, 85-87, 96, 357, 457, and 463 regarding issues pertaining to the SWDPS Recovery Team, Recovery Plan, and recovery or reintroduction population goal/objective. AMOC has noted considerable misunderstanding about “100 wolves” as a population or recovery goal. The 1982 Mexican Wolf Recovery Plan (USFWS 1982) identified the following as a “prime objective,” not as a recovery criterion or even as a downlisting threshold: a “self-sustaining population of at least 100 wolves in the middle to high elevations of a 5,000 square mile area within the Mexican wolf’s historic range.” The desired wild population, in conjunction with establishment of a captive breeding program, was intended to conserve and establish the survival of *Canis lupis baileyi*. The 1982 Recovery Plan “prime objective” was carried forward through the 1996 FEIS and the 1998 Final Rule. Thus, it became the current BRWRA reintroduction population goal or objective. In other words, it is not and never has been a final recovery goal (see also B.2 in the Administrative Component). Updated recovery criteria for southwestern wolves (i.e. the Mexican wolf) have yet to be recommended by a Recovery Team. However, AMOC remains accountable for determining through the 5-Year Review whether adjustments in the current nonessential experimental population goal and BRWRA boundaries are warranted. Thus, after considering all public and cooperator comment during the 5-Year Review, and its own evaluations, AMOC has made recommendations regarding possible changes in the Final Rule or creation of a new Final Rule, as well as convening a Recovery Team to address Recovery Plan issues (see the AMOC Recommendations Component; see also C/R 99). The USFWS Region 2 Director will then be responsible for acting on AMOC’s recommendations.

360. **Comment:** It should be abundantly clear to the USFWS and the Recovery Team that successful recovery of wolves in the SWDPS depends upon and is advanced by successful recovery of the BRWRA population. **Response:** See C/R 357.
361. **Comment:** Page 101, Comment #66; Technical: The primary author of this review comment is a member of the SWDPS Recovery Team and has no knowledge of a “population habitat viability analysis of the wild population in the BRWRA” being conducted by the Recovery Team. Even if this statement by the USFWS was true at the time this document was written, this action cannot now be categorized as “being implemented” because the SWDPS Recovery Team is now on hold due to recent litigation nullifying the 2003 rule which established the SWDPS. **Response:** The response to Comment #66 has been modified from the draft 5-Year Review to reflect the current status of the Recovery Team. See also C/R 64 and 357.
362. **Comment:** It is inappropriate and an abrogation of ESA responsibility for the USFWS to postpone currently authorized recovery actions as provided by the 1982 Recovery Plan for the Mexican wolf pending some uncertain future decision or plan rendered by the now inactive SWDPS Recovery Team. **Response:** See C/R 86 and 109 regarding recovery actions and C/R 357 regarding the Recovery Team.
363. **Comment:** Page 5, Paragraph 1 (Technical): The Recovery Team has been suspended and is unlikely the plan will be completed in 2006. Also the Team did not review the 5-Year Review as stated on an unnumbered page preceding the Technical Component. **Response:** See C/R 85-87, 109, 110, 122, 357, and 359, as well as the Administrative Component (B.2) of the 5-Year Review for background on and current status of the recovery planning effort. See C/R 6 regarding Recovery Team review of the draft 5-Year Review.
364. **Comment:** Page 101, Item 66 (Technical): Because the Recovery Team has been suspended, this review should include such a population and habitat viability analysis. **Response:** See C/R 71 and 361.
365. **Comment:** All references (Administrative) to decisions, analysis, and products stemming from the SWDPS Recovery Team’s work must now be amended to reflect that team’s suspension. **Response:** We amended the 5-Year Review accordingly.
366. **Comment:** The USFWS should move forward in finalizing the draft SWDPS Recovery Plan no later than the August 2005 expected release date. **Response:** See C/R 357 and 363. See also B.2 in the Administrative Component.
367. **Comment:** USFWS should re-evaluate the northern limit of the recovery area. The Mexican wolf is the best source for establishing wolves in the Southern Rockies Ecosystem. The northern boundary of the recovery area should be expanded north to include additional suitable habitat for Mexican wolf reintroduction. **Response:** The

Southern Rockies Ecosystem referenced in this Comment is outside the scope of the 5-Year Review.

368. **Comment:** The expansion of the recovery zone was anticipated by the Coalition of Counties and livestock producers when the original rule was proposed. The USFWS and environmental organizations that support their agenda have been notorious in their lack of integrity concerning making agreements and sticking to them. The FEIS should have accurately disclosed the ultimate goal of reintroduction. That is, reintroducing Mexican wolves from the Mexican border to southern Utah and Colorado should have been analyzed in the FEIS as a predictable outcome of incremental actions leading to a final action. **Response:** The original (current) Final Rule and BRWRA boundaries were based on a different understanding of Mexican wolf historical distribution than exists today, due to recent advances in science (see C/R 82, 88, 164, and 181). Moreover, the first few years of the Reintroduction Project were expected to provide new insights about how well BRWRA boundaries provide for progress toward the Project's population goal. This was reflected in the Final Rule's requirement for evaluating the reintroduction effort through 3-Year and 5-Year reviews. Whether boundary changes such as those referenced in this Comment should have been addressed in the FEIS is now moot. More importantly, any changes proposed through 5-Year Review recommendations (see the AMOC Recommendations Component) will be vetted through the appropriate administrative and regulatory processes.
369. **Comment:** Wolves moving outside the recovery area is indicative of a habitat choice that was a political decision and not necessarily within a Mexican wolf's instinctive comfort zone. Normally these were desert animals and the early arguments that lead to the BRWRA being defined as the Primary Recovery Zone are now being shown by the wolves themselves to be incorrect. **Response:** The 5-Year Review indicates that 68% of single wolves (those dispersing or that left the pack following release) were reported outside the BRWRA boundary at least once. However, only 11 of the 39 yearly home ranges of wolf packs delineated extended beyond the BRWRA. Thus, Mexican wolves primarily occupy the BRWRA, which habitat modeling is now affirming is one of the most suitable areas in the Southwest for wolves to occupy (Carroll et al. *in press*). One reason that wolves sometimes occur outside the boundary is simple: wolves disperse great distances and the current BRWRA is not very big relative to wolf movements. For instance, one Mexican wolf moved from outside the boundary on the west in AZ to near the northeastern boundary in NM in a relatively short period of time.
370. **Comment:** The goal of 100 wolves for the BRWRA is way overestimated and needs to be reconsidered as the number of wolves now occurring are leaving the recovery area and are slaughtering much more livestock than projected in the FEIS. **Response:** See C/R 99, 103, 104, 108, 189, 199, 202, 287, 357, and 359 regarding the population goal. See C/R 216 and 291 regarding livestock depredation.
371. **Comment:** Mexican wolf recovery efforts should be focused in Mexico, not here. **Response:** The ESA mandates that recovery efforts in the USA be undertaken by Federal

agencies and, more obliquely, cooperating State and Tribal agencies (see C/R 48). These agencies cannot legally abdicate that responsibility to foreign countries.

372. **Comment:** The new, Mexican Wolf Recovery Team is made up of people who are USFWS employees, State agency employees or board members and advisors of the Southern Rockies Wolf restoration group. Individuals not associated with government agencies or preservationist organization pay their own way to participate in the Mexican Wolf Recovery Team. **Response:** See C/R 357.
373. **Comment:** Allowing the NGOs to serve as experts on the Recovery Team has given them unique power over the landowners in the areas affected by endangered species. **Response:** See C/R 357.
374. **Comment:** Remove the Mexican wolf from the endangered species list. **Response:** The Mexican wolf will not be removed from the endangered species list until or unless one of the following occurs: (a) it is recovered; (b) it becomes extinct (i.e. it does not exist in captivity or the wild); (c) a court decision results in removal; or (d) the ESA itself is changed by Congress in such a way that listing is no longer appropriate.
375. **Comment:** Terminate the current Recovery Team and reassign a new team whose primary objective is reasonable recovery rather than social engineering. This team should sign a term of reference that includes consideration of human social impact and historical science. **Response:** See C/R 357.

#### **M. Livestock Grazing on Public Lands**

376. **Comment:** Establish a rule that wildlife has precedence over livestock on public land. **Response:** Livestock grazing on National Forest lands is a traditional lawful use and part of the USFS multiple-use mandate. Livestock grazing is authorized and regulated by the Multiple Use Sustained Yield Act of 1960, the Federal Land Policy and Management Act of 1976 [Section 402(a)], Forest and Rangeland Renewable Resources Planning Act of 1974, as amended by the National Forest Management Act of 1976, NEPA of 1969, and the Rescission Act of 1995. See also C/R 227, 378, 380, and 472.
377. **Comment:** Page 9, Paragraph 3 (Technical): Several factors to be assessed as causes are minimally germane to the success and should be removed or conflated with others: 1) the year of release does not convey any biological information; 2) time spent in acclimation pen if functionally synonymous with method of release and thus one of these should be dropped from the analysis; 3) state (NM or AZ) partly overlaps the question of type of release (i.e. translocation or initial release) and does not in and of itself represent a biological factor -- information that might stem from using this factor could better be analyzed by substituting "distance from other wolf pack home ranges," which better distinguished the situation in NM from that in AZ during the period under review; 4) what may be the most important factor in success of wolf release is the animal unit months of livestock grazed or actual (if actual use figures are not available) within a

given distance from the release site. **Response:** Year and State of release are used in this analysis as a blocking variable relative to other biological variables, principally weather patterns and environmental differences, in a given year. Data that overlaps years can mask or accentuate differences in other variables that more closely relate to yearly differences. Other variables were not prevented from entering into the model before year or State if they were more significant in describing the patterns observed. Analysis of the data indicates that method of release and time spent in an acclimation pen are not functionally synonymous; method of release had a significant effect on success, while time spent in an acclimation pen did not. Regardless, each variable analyzed had the potential to be in the model prior to other variables if it was more significantly related to success of individual releases. Cattle densities and distance to other wolves were discussed as possible analysis factors. However, releases and translocation sites were chosen to avoid other wolves and cattle to the greatest degree possible within the area available for releases. Thus, these factors were controlled for in release area selection. Further, no wolf deaths were caused by other wolves during the 5-Year Review time frame of 1998-2003 (see C/R 140 and 146 on the Lupine Pack for further information), thus other wolves had little influence on success of any releases. A wide variety of habitat features could be included in the release success model (e.g. 2-wheel drive and 4-wheel drive road densities, ungulate densities, livestock densities, wolf densities, vegetation characteristics [e.g. the openness of the habitat], water, and slope). However, searching for a specific link between environmental variables and release success was outside the scope of this analysis, because of time and resource constraints (such an analysis would take years of dedicated research). Rather, we looked at more basic factors associated with the wolves that might affect survival (e.g. age, sex); habitat variables might be investigated in future detailed analysis. There are two different underlying questions in assessing release success, (1) which animals and methodologies are likely to be successful, and (2) what areas promote successful releases. The first question could be assessed with existing data, but the latter question would require extensive GIS analysis and computations that could not be accomplished within the available time. Further, questions arise with regard to the timing of any cattle density comparison. Is it the number of cattle present at the time of release, or the animal unit months on the allotment throughout the year? What if the wolves do not use (remain in) the allotment in which the release occurred? Further, wolves within a given pack were subject to differing conditions relative to cattle presence, due to their post-release behavior (e.g. some dispersed, some stayed near the release site). Similarly, “distance to other wolves” had significant issues in terms of methodologies (e.g. Is it measured at the time of release – as in a point location to a point location, or via the preceding year’s home ranges, or via the home ranges that were eventually established by released wolves within the year. Overall, these analyses will require more time for careful consideration of the methodologies and a greater number of variables collected from GIS data to determine which areas promote successful releases.

378. **Comment:** The revised rule should prohibit the removal or lethal take of wolves for engaging in livestock depredation within the currently defined BRWRA. Wolf recovery should be established at least a co-equal (to livestock grazing) priority. Until wolf

recovery is stable and the population within the BRWRA is considered a “source” population, the USFWS should give deference to wolves when conflicts occur between wolves and livestock. We recognize this is potentially a very controversial recommendation and we are not recommending forced elimination of grazing privileges in the BRWRS, but rather innovative solutions that promote wolf recovery such as voluntary grazing allotment retirement programs or implementing new livestock husbandry and management practices that minimize conflicts. **Response:** Under the Final Rule, wolves released to the wild are considered expendable to the Recovery Program. The Final Rule reflects a commitment to integrate wolf reintroduction into multiple-uses of public lands and to minimize conflicts on private lands. The Final Rule is not structured, nor is the Reintroduction Project empowered or administered, to force changes in public or private grazing practices to accommodate presence of wolves. See also C/R 51, 106, 155, 227, 376, 380, and 472.

379. **Comment:** Cattle should be removed from all public land. **Response:** See C/R 376.
380. **Comment:** This kind of recommendation (notify livestock operators when wolves are likely to den in livestock pastures and consider modifying grazing use to minimize opportunities for depredation) is indicative of our claim that the Mexican wolf is being used as a means to control and limit the ability of livestock allotment users to access their Federal grazing allotments. There has been no cooperation with ranchers in developing implementation of this suggestion even though it says livestock permittees have been contacted. It is beyond my capacity to understand why Defenders is a partner in this recommendation. Livestock grazing is a legitimate, legal, and approved application of the Multiple Use Sustained Yield Act and should not be inhibited by this program. It is enough of a strain on ranchers to have to tolerate the excess predation without having to worry about the availability of pasture. (#15) Technical. **Response:** See C/R 227, 376, and 472. USFS is mandated by section 7(a)(1) of the ESA to contribute to conservation of the Mexican wolf. Therefore, USFS has been an active participant in reintroduction and recovery efforts for the species. USFS is not; however, removing ranching from National Forest system lands as a result of the Mexican wolf. USFS operates under a multiple-use mandate in which both uses have value. It is prudent for the IFT to advise ranchers when situations arise that could lead to livestock depredation. Defenders becomes involved in such situations only to offer assistance to permittees who desire such assistance. Ranchers have the opportunity to provide input and comments to AMOC on the 5-Year Review and any Federal rules that USFWS prepares in response to AMOC recommendations in the Review. Members of the ranching community have been involved in the Recovery Plan revision effort (but see C/R 357). Furthermore, the public is invited to attend AMWG meetings and provide input to AMOC. These public meetings are held quarterly at logistically convenient locations in AZ and NM.
381. **Comment:** USFS and BLM have a responsibility to be proactive in Mexican wolf recovery as outlined in Section 7(a) 1 of the ESA. They should modify grazing leases to require leaseholders to monitor and properly dispose of livestock carcasses to decrease wolf-livestock conflicts. **Response:** See C/R 380; Section 7(a) 1 of the ESA does apply to

BLM as well as to USFS. The types of requirements proposed in this Comment can be written into grazing permits, but only when mutually agreed upon by the permittee and USFS (see also C/R 257 regarding carcass removal).

#### **N. Law Enforcement**

382. **Comment:** Investigative actions need to be stepped up to try and apprehend people responsible for shooting Mexican wolves and penalties for killing wolves needs to be increased. **Response:** All wolf mortalities are fully investigated with every available resource. The USFWS Office of Law Enforcement conducts extensive proactive patrol activities in high risk areas to deter illegal take of Mexican wolves. Additional USFWS agents are routinely brought in to supplemental local staff in such actions. State and Tribal wildlife agencies, including IFT members and commissioned personnel, also assist in preventative enforcement contact efforts, and in investigations as requested by USFWS. Federal penalties for illegal take of a Mexican wolf are set in the ESA and could only be increased if the ESA were amended. State penalties are set by the respective State legislatures, and could only be changed by legislative action. WMAT Tribal civil penalties are under control of the Tribal Council.
383. **Comment:** Request additional law enforcement personnel and resources. Vigorously investigate not only shootings but also vehicular collision and human interference with wild wolves short of actual killing. Concentrate law enforcement efforts on identified sink areas and geographical clusters of mortalities and missing wolves. **Response:** See C/R 382. The USFWS Office of Law Enforcement investigates all wolf mortalities that occur in the wild, no matter the cause, and every suspect wolf-human interaction that might have resulted in illegal take of a Mexican wolf.

#### **O. Other Translocation Projects**

384. **Comment:** We request better coordination with respect to wolf releases into areas where other wildlife translocations are being conducted to ensure the wolf program doesn't hinder other active wildlife management activities. **Response:** This concern about the importance of coordination with other ongoing wildlife management activities was reflected in development and review processes for Project work plans, various SOPs, and management approaches in 2005, and will continue to be considered in future years. All wolf management actions (e.g. releases, translocations, and control efforts) are fully coordinated with wildlife management (including game management) programs within the State and Tribal agencies that are cooperating or are otherwise involved in the Project.
385. **Comment:** Wolves and lion hunting with hounds are not compatible and this can have grave consequences on future sheep transplants into the Bear Mountain area. **Response:** The conflict addressed in this Comment is largely unavoidable, especially considering projected increases in numbers of uncollared wolves. However, timely information on known or likely presence of collared wolves can better enable a houndsman to determine

whether or not to let hounds loose in a given area. This underscores the importance of ensuring that wolf management is effectively coordinated with other ongoing wildlife management activities. Consequently, Project work plans, SOPs, and management approaches have all been modified since 2004 to ensure appropriate coordination and flow of information (see C/R 384). Ultimately, though, loss of free-ranging dogs and running hounds to wolves (rarely does the opposite occur) is inevitable, just as hounds and other dogs are inevitably lost through encounters with mountain lions, bears, or other wild animals (e.g. rattlesnakes).

## **P. Scientific Procedures**

386. **Comment:** Conducting studies, monitoring, and analyses to evaluate any community-level changes that may result from Mexican wolf reintroduction should be a main priority of the project. **Response:** AMOC believes that monitoring changes in the ecological community is very important. However, AMOC does not believe that day-to-day management needs for Mexican wolf reintroduction can be sacrificed in favor of, or while awaiting funding for, long-term ecological monitoring. Community-wide studies are often labor-intensive and costly, and thus far the budget for Mexican wolf reintroduction has not been sufficient to allow for both studies and management to occur. Consequently, AMOC and the IFT have used information on community-level changes from wolf studies in other areas (where applicable) as a basis for BRWRA management. If additional funds become available in the future, community-level monitoring may be implemented. See also C/R 35, 42, 132, 224, 301, 392, 431, and 492 regarding research.
387. **Comment:** On Page 7, study area/reintroduction area Technical report: break out the permitted number of cattle from the actual number of cattle. These 2 numbers are significantly different, especially since the onset of the drought. **Response:** This section of the 5-Year Review was changed to read: “Approximately 82,600 cattle and 7,000 sheep were permitted to graze roughly 69% of the BRWRA and 50% of the allotments were grazed year-round when Reintroduction Project began (USFWS 1996). The actual numbers of cattle and sheep varied each year relative to environmental factors, and were generally lower because of drought conditions.”
388. **Comment:** There was an admitted inconsistent data collection and recording methodology by independent observers and between government agencies over the years, yet the data from those years were combined with that of the more reliable years of statistical analysis. Some observers were volunteers and the triangulations put wolves in the Mohave Desert. **Response:** The triangulations and locations in the Mohave Desert during the referenced test were the result of human error: people analyzing the data used locations in different UTM zones on the same map. The data were accurate, but were incorrectly displayed and interpreted within the 3-Year Review. This error was corrected by zone transformations in the 5-Year Review.
389. **Comment:** The statistics used in this study are useful only if they are collected in a consistent, reproducible, comprehensive, and uniform fashion. Much of the data in this

report are none of those and the limitations are repeatedly admitted, yet these data are wrongly used for statistical analysis, and for actionable conclusions. This objection applies to all field observations, including estimates of wolves in the wild, dispersion, mortality, reproduction, predation, and depredation. All of these issues are ultimately based on human observation with: 1) consistent documentation using standardized methods by trained observers over the life of the study; 2) use of documented representative sampling methods; and 3) standardized data bases. Yet in the document are statements that evidence that these minimal standards were not used (Pages 37, 42, 83, 91-92, 100). **Response:** We believe the information gathering and analysis approaches in the 5-Year Review were accurate and appropriate. If you have specific examples to the contrary, please provide them. Record keeping and methods were consistent for locations (based on location database at Alpine Field office), mortalities (event database at Albuquerque NM, with paper records kept with USFWS Special Agents), dispersal (based on location database), predation (based on predation database at Alpine AZ), depredations (based on paper WS reports associated with each investigation, housed at Albuquerque NM [events database]; Alpine AZ; and Phoenix AZ [depredation database]) during the review process. Visual estimates of the number of wolves and pups associated with each collared pack in the wild were composed yearly. The sum of the number of wolves and pups associated with each collared pack represented our minimum annual population and pup estimate per year. All observers were trained by qualified personnel. Sampling is generally required for large populations. The first requirement is to determine the sample unit. In the case of population estimates and reproduction, the sample unit is individual packs. During the course of this study, we attempted to place radio collars within every pack, and investigated credible reports of uncollared wolves, that were indicative of a pack being present. We used this “sample” (e.g. every pack with credible evidence of existence) as the basis for minimum reproduction and population estimates. Sampling methods for dispersal and mortality relied on individual collared wolves as an indication of the population. The sample in this case is whatever animals are captured and big enough to wear a collar. Predation and depredations were not designed to be sample, but rather summarizing the data that was collected from all kills that were found. Within scientific documents it is important to note the limitations of the data, and areas where additional or ongoing research may help to elucidate some of the hypothesis or questions. Many of the specific examples above relate to areas in the document where we note the limitations of the data or discuss specific research projects that have been initiated. Specific research will be analyzed and reported within a specific research period, and may eventually effect data collection methods, but does not represent a shift in the record keeping or methods currently. Further it is appropriate within scientific documents to discuss the limitation of specific data. The section on Page 42 refers to the differences between two databases housed in different offices relative to depredations. We have reconciled those two databases by referencing each individual paper record of depredations housed in the different offices. That reconciled version of depredations will be presented in the final 5-Year Review (see also C/R 132 and 161).

390. **Comment:** Require 5 years of livestock carcass removal and compare results to previous 5 years of not removing carcasses. **Response:** As of 2005, no research projects are

designed or planned to study the difference between carcass removal and no removal. Furthermore, as noted elsewhere (see C/R 227, 257, 266, and 267), there is currently no law, regulation or policy that would allow such a research project without individual livestock grazing permit owners volunteering to participate.

391. **Comment:** As the authors of the Technical Component indicate, the appropriate figures to examine when assessing the sustainability of the reintroduced population are the reproductive rate and the failure rate (mortality rate and removal rate). For all intents and purposes, a removed wolf in the population is equivalent to a dead wolf in a population not subject to removals for boundary infractions and depredations. Individuals in wild wolf populations in studies cited by Fuller et al. (2003) were undoubtedly subject to lethal control when they ran afoul of livestock, but those numbers were included in the mortality rates found in the studies, and were not additive to those figures. **Response:** Essentially, lethal removals from other populations were included in mortality rates because those wolves were killed. In the BRWRA population, many of those wolves were removed but not killed. To clarify, consider 2 wolves in each population. In the other wolf populations, these two wolves were killed, 1 by automobile and one by lethal control. In the BRWRA population, one of these wolves was killed by automobile and the other was considered removed. Also assume there are 60 radio days. The daily survival rate in the other area is  $(1 - (2[\text{number of deaths}] / 60[\text{radio days}]))$  equals 0.967. In our study, the daily survival rate would be  $(1 - ((1[\text{deaths}] / 60) + (1[\text{removals}] / 60)))$  equals 0.967. Thus, by adding the removal rate to the mortality rate you end up with the same answer as if you simply added the removals and deaths together and called them mortalities.
392. **Comment:** More research should be funded. **Response:** AMOC believes that research regarding wolves and wolf habitat is important. So is social research (i.e. human dimensions and socioeconomics). However, as noted above (see C/R 35 and 386), research is often costly, and the budget for Mexican wolf reintroduction is not sufficient to support both essential daily management and long-term research. Thus, AMOC and the IFT have used and will continue to use information from wolf research in other areas (where applicable). If additional funds become available to the Reintroduction Project, through agency budget increases or voluntary external contributions, specific wolf-related research projects might be implemented (see C/R 132, 224, 301, 386, 431, and 492), primarily by entities other than the IFT (see C/R 35).
393. **Comment:** Project databases/data collection should be improved. **Response:** Project databases and data collection methods have been improved several times already, but specific recommendations for further improvement would always be appreciated. Examples of improvements to date include: Data collection methods have been improved through development of SOPs that ensure more consistency and accuracy in recording, analyzing, storing, and retrieving information of all kinds. Depredations are tracked more closely now, and data from all sources are integrated more quickly into a common database. Individuals contacted after monitoring flights, to provide current location information, are now recorded and tracked centrally. Pack numbers are now tracked via

specific forms that provide summarized information to date. Hunter contact numbers are tracked through daily data sheets. Flight locations have been corrected within the database to ensure they are in the proper UTM zone. Also, flight locations are now reviewed monthly (per a base map) to ensure accuracy. However, after considering all public and cooperator comment during the 5-Year Review, and its own evaluations, AMOC has made recommendations regarding evaluation and enhancement of Project management information systems to ensure they are effective and efficient (see the AMOC Recommendations Component).

394. **Comment:** Data collection needs to be applied evenly rather than simply collecting data that benefits the program needs and expectations. (#3) Technical **Response:** Data are collected as necessary to achieve Reintroduction Project objectives. Results are reported without bias, and not skewed to be favorable to the Project. We are not aware of any area in which the methods or data collection were biased for or against program needs.
395. **Comment:** Has any of the research performed on the project been used to change data collection procedures? So far there seems to be nothing available to the public on these studies. Why are they being encouraged but not used? (#7) Technical. **Response:** Data collection procedures are incorporated into the current SOPs. They reflect considerable experience and knowledge gained since 1998. Project SOPs will continue to be revised as new information becomes available.
396. **Comment:** The program has not taken the obligation to create maps and reports that reflect population levels of prey base, their spatial and temporal distribution, and current and projected management and direction for NM, AZ, and Mexico seriously. (#11) Technical. **Response:** AMCO relies on the State and Tribal wildlife agencies to provide information on prey base abundance, distribution, trend, and management within the BRWRA. AMOC does not see the need to duplicate their efforts, nor do we have the staff or funding resources in the Project to do so. Also, AMOC has no authority over management issues or activities in Mexico.
397. **Comment:** So far there is nothing out there to show that identifying wild ungulate prey base habitat enhancements through private property incentive programs is being done. (#12) Technical. **Response:** Thus far, no measurable reduction in prey has been identified as resulting from reintroduction of Mexican wolves, therefore AMOC has not seen the need to pursue or advocate such enhancements to counteract presence of wolves. Also, as noted in C/R 396, management of game populations, including relevant private property incentive programs, is within the purview of the individual State and Tribal wildlife agencies.

#### **Q. Tribal**

398. **Comment:** There are questions about the validity of the livestock loss information acquired from the SCAT. The SCAT does a poor job of managing their cattle and is close to no management at all and the losses could easily be the result of their inadequate

management. **Response:** In accordance with a standing SCAT Council resolution, the only wolf management allowed on SCAR is depredation investigation and immediate wolf removal. Thus, per the Final Rule, SCAR is not included in the BRWRA. SCAT is not a formal Cooperator in the Reintroduction Project, preferring to handle depredation and removal issues directly with USFWS via a Statement of Relationship and with WS via a separate agreement. Questions or concerns about SCAT management practices are therefore outside the scope of the 5-Year Review, and should be addressed directly to SCAT.

399. **Comment:** The discovery or attempt to discover wolf depredations on SCAR has been inadequate and unfunded. This breaches the trust responsibility the US government has with Tribes. The SCAT desires adequate funding to hire personnel, get training, obtain wolf expertise to properly monitor the wolves on the Reservation and address the depredation issue. **Response:** See C/R 398. USFWS and WS respond independently of AMOC to SCAT requests for assistance with wolf issues. When SCAT reports a possible wolf depredation incident, WS conducts a formal investigation. USFWS also funds SCAT wolf management activities (i.e. detection and removal) and provides necessary equipment to the extent possible, via Recovery Program funds. In 2005, USFWS secured funding under the Tribal Wildlife Grants Program to provide additional assistance to SCAT. This will include (in cooperation with WS) training Tribal game officers in investigative procedures, to enable SCAT to take on more responsibility for conducting depredation investigations in the future. In 2005, USFWS also hired a Tribal member, permanently stationed in San Carlos, who divides his time between Mexican wolf and fisheries issues. As noted, WS also provides assistance with wolf control on SCAR, including training for SCAT employees, but is limited by available, budgeted funds. SCAT has declined to accept AGFD wolf assistance offered under an existing MOU between SCAT and AGFD. Thus, other IFT resources, such as AGFD employees and equipment, cannot be deployed to SCAR. AMOC will continue to cooperate with SCAT to the extent possible, but additional AMOC and IFT resources cannot be allocated to work on SCAR unless SCAT becomes a formal Cooperator or comes to some other mutually acceptable agreement with AMOC Lead Agencies other than USFWS and WS.
400. **Comment:** The USFWS currently decides whether a wolf depredation has occurred on livestock on the San Carlos Reservation. There may be a conflict of interest in that process because on one hand they endeavor to implement the program successfully and on the other hand decide whether a depredation has occurred. These policies conflict with each other. **Response:** See C/R 398 and 399. WS has the lead on conducting wolf depredation investigations on SCAR and determines whether a wolf depredation has occurred. USFWS employees assist WS in conducting timely investigations, and in removing wolves at SCAT request. These activities are conducted in accordance with SCAT guidance, and are beyond the scope of the 5-Year Review, given that SCAR is outside the BRWRA and SCAT is not a formal Cooperator in the Reintroduction Project.
401. **Comment:** Apaches on SCAR no longer camp and hunt in their traditional hunting camps because of interactions they've had with wolves showing no fear of humans.

These impacts were not adequately noted in the report. **Response:** The 5-Year Review reflects all information available to AMOC. Many wolf reports from SCAR that were passed on to the IFT were hearsay, often having passed through several people before reaching the IFT. Given the typical lag time involved between incident and reporting, and frequent inability to locate a specific source, USFWS, WS, and SCAT biologists were generally unable to get confirming details during follow-up efforts. This accounts for the gap between the number of incidents that SCAT officials have heard about, and the absence of documented reports in the 5-Year Review. USFWS is now working with SCAT to ensure reporting procedures are tightened up, so each incident is documented to the extent possible. Based on information discussed with SCAT on December 23, 2005, Event 33 was added to the Human/Wolf Interaction Table. Any further information obtained regarding specific events will also be used to update the IFT database.

402. **Comment:** SCAT's position is that any wolves found on SCAR should be removed by USFWS immediately before they depredate. **Response:** See C/R 398-401. AMOC is aware of SCAT's formal position, and accordingly defers to USFWS and WS to handle SCAT requests for assistance independent of the IFT. USFWS and WS response times are limited by available resources, and responsibilities within the BRWRA. As noted in C/R 399, additional IFT resources cannot be used for wolf management on SCAR because SCAT has declined to become a formal Cooperator in the Reintroduction Project or to come to some other enabling agreement with AMOC Lead Agencies other than USFWS and WS.
403. **Comment:** The boundaries should not include SCAR. There are not adequate funds to address the wolf problem on SCAR and it is not rational to discuss expansion of wolf release areas/boundaries which may impact Apaches even more. **Response:** As noted above (see C/R 398-402), SCAR is not within the BRWRA, and per a SCAT Council resolution all wolves must immediately be removed from SCAR. After considering all public and cooperator comment during the 5-Year Review, and its own evaluations, AMOC has made recommendations regarding possible changes in the Final Rule or creation of a new Final Rule (see the AMOC Recommendations Component). Within the processes by which those recommendations are explored, SCAT will again have ample opportunities to decide whether to allow wolf presence on SCAR. SCAT is not a formal Cooperator in the Reintroduction Project, thus requests for funding for wolf management on SCAR should be addressed to USFWS.
404. **Comment:** USFWS should have anticipated the problems wolves would cause on SCAR because of the livestock present on SCAR. **Response:** The FEIS and Final Rule recognized wolves would inevitably travel beyond the MWEPA and BRWRA boundaries, and provided direction on removing such wolves. SCAT was represented on the Interagency Team that drafted the FEIS. USFWS also met with SCAT representatives privately several times during the EIS process, and following completion of the EIS and publication of the Final Rule. However, as noted above (see C/R 398-403), SCAT is not a formal Cooperator in the Reintroduction Project. Unless it becomes one, consultation

issues with USFWS should be addressed directly to USFWS, as they are beyond the scope of the 5-Year Review and AMOC operations.

405. **Comment:** SCAT should have been consulted about the wolf reintroduction but we were not. **Response:** See C/R 404.
406. **Comment:** USFWS should develop Tribal procedures and provide training to the tribe. **Response:** See C/R 399 and 400. USFWS and WS are providing training to SCAT employees on wolf depredation investigation procedures. AMOC remains available to assist SCAT in adapting AMOC SOPs for use on SCAR.
407. **Comment:** Adequate studies have not been done to assess whether wolves that feed on livestock will then kill livestock. That is the reason the SCAR proposed a comprehensive study of wolf/cattle mortality on SCAR. A partial study was done, then abandoned by USFWS. In the absence of a scientific study on SCAR pointing to that conclusion, this issue is unsupported and opposed. **Response:** See C/R 399.
408. **Comment:** Any evidence put forth to conclude that there were only a certain number of wolf depredations on the SCAR is unreliable and suspect. The Tribe does not accept these conclusions and studies, since there are inadequate resources and personnel to assess the situation. **Response:** See C/R 399-406.
409. **Comment:** USFWS should develop a communication system that is effective and efficient with respect to communicating with a sovereign tribe (SCAR). **Response:** See C/R 398-403 and 406.
410. **Comment:** The methods used by the Tribes is not known, nor is their data. So the number estimates are suspect. **Response:** See C/R 398-406.
411. **Comment:** Page 61, Map, Technical: Why is SCAR not shown or referred to? **Response:** See C/R 398-406. SCAR is not within the BRWRA and a standing SCAT Council resolution affirms SCAT's desire not to have wolves on SCAR. Since the referenced map depicts only areas that wolves are allowed to occupy, SCAR is not shown or referenced.

## **R. Outreach/Education**

412. **Comment:** Page 30, #4, Administrative: The outreach coordinator was recommended to be a USFWS employee – AGFD should not shoulder the cost of this position. **Response:** In 2004 and 2005, AMOC secured increased commitment for outreach support (i.e. staff time) from the USFWS Region 2 (Albuquerque) Public Affairs Office, as well as comparable staff in other cooperating agencies. However, this support primarily applies to outreach (communication) through the mass media, from agency offices distant from the IFT's primary arena of activity, the BRWRA. Thus, reacting to AMOC's priorities for additional field staff, AGFD funded a new IFT position for outreach specifically in the BRWRA. As one of the six Lead Agencies, AGFD is amenable to using its resources this

way as an interim measure, on the assumption that other Project cooperators will handle other shared issues to the maximum extent of their ability. In summary, AMOC believes that Project outreach to local residents and communities within BRWRA has not been sufficient in the past. AMOC modified SOP 3.0: Outreach to address this, and the 2006 IFT Annual Work Plan will reflect the higher priority set by AMOC for local outreach. Further, after considering all public and cooperator comment during the 5-Year Review, and its own evaluations, AMOC has made recommendations regarding IFT expansion on an agency-specific basis, and outreach focus in 2006, that would address concerns inferred from this Comment (see the AMOC Recommendations Component).

413. **Comment:** Further assess prey base and educate the public regarding wolf depredation in order to dispel possible myths of stated “competition” with hunters, and with respect to hunting as having positive economic impact to Catron County. **Response:** After considering all public and cooperator comment during the 5-Year Review, and its own evaluations, AMOC has made a recommendation regarding further study of prey base within the BRWRA and MWEPA (see the AMOC Recommendations Component). Such studies would help update or supplement prey base population information provided by State and Tribal wildlife agency cooperators in the Reintroduction Project. Prey base information will also continue to be incorporated into outreach materials to address relationships between prey base trends and hunting permit trends. The “myth” of wolf competition with hunters is addressed in the Socioeconomic Component. As noted in the 5-Year Review, information from all available sources indicates that hunting (especially big game hunting) has an important beneficial impact on all Counties and Reservations within the BRWRA.
414. **Comment:** Continue to emphasize public education and outreach. **Response:** See C/R 412.
415. **Comment:** More accurate and realistic information about wolf behavior needs to be disseminated. No more false information such as wolves are afraid of humans and will run, they have never attacked a human in North America, etc. (#9) Technical **Response:** See C/R 175, 327-337, and 593 regarding fear of wolves and/or wolf attacks. The draft Technical Component stated that: “The paucity of documented wolf attacks in North America suggests that wolves rarely attack people there (McNay 2002a and 2002b). However, wolves in protected populations generally are less fearful of humans than those in exploited populations (McNay 2002a and 2002b). Thus, managers should continue to closely monitor initially released wolves and initiate aggressive aversive conditioning, or removal if appropriate, when wolves are near humans.” McNay (2002a and 2002b) also concluded that no documentation exists confirming that a wild healthy wolf has killed a human since at least 1900. Wolves do tend to shy away from (i.e. avoid) humans, or move quietly away from humans. Some people interpret that as fear of humans. Others see it as a sign of intelligence. Regardless, these are just behavioral tendencies, not certainties. Thus, it is also true that some wolves are more tolerant of (or even seem “curious” about) humans, and don’t shy away from humans. Some even approach humans rather closely, perhaps due to habituation or some innate behavioral trait

- (curiosity?). Humans can easily perceive such wolves as actual or potential threats, due to proximity alone. The fact that wolves display such behavioral variety can lead to “fact combat,” with one person arguing their experience or knowledge base is “the truth” while another argues the same from a different, perhaps even opposing, experience or knowledge base. Most likely, neither perspective is entirely right; neither is entirely wrong. Both might reflect different parts of the continuum of “normal” wolf behavior. Regardless, AMOC is committed to providing balanced, accurate information on all aspects of wolf behavior and wolf reintroduction (e.g. see SOP 3.0: Outreach).
416. **Comment:** Those directly affected by the wolves should have the opportunity to help develop the educational processes so they are more realistic. (#10) **Technical Response:** In April 2005, AMOC reviewed its public outreach efforts, including SOP 3.0: Outreach and the standard IFT outreach presentation. With assistance from Greenlee County AZ, both were modified to help ensure Project outreach efforts are accurate and appropriately balanced. This issue was discussed again in several subsequent AMWG public meetings. SOP 3.0 now provides better guidance for public outreach, including direction to ensure that such efforts are realistic and well-rounded. AMOC welcomes additional input and assistance from entities that wish to provide help with and input to Mexican wolf outreach efforts. AMOC is already working with livestock industry representatives from the Southwest to exchange graphics and other information, so both can integrate new material into their existing presentations to provide a more objective look at the full spectrum of relevant issues.
417. **Comment:** The Apache-Sitgreaves Forest highly encourages USFWS to work with the public to convey information on the role of wolves within the existing ecosystem. It is in the interest of all agencies to work closely with affected permittees to keep them informed and part of the process. **Response:** See C/R 412, 413, 415, and 416. AMOC and the IFT are committed to providing such information to the public, especially affected permittees, to keep them well informed and part of the adaptive management process. AMOC developed and implemented SOP 3.0: Outreach in 2005 to make clear our commitment to effective public outreach, and to communicating and coordinating effectively with land management and other agencies with an interest in Mexican wolf reintroduction. Effective and timely communication is essential to increasing social capital with regard to local acceptance of wolves. AMOC and IFT presentations must always provide a balanced perspective on wolf reintroduction, including factual information on the role wolves play in the ecosystem and their impacts on livestock operations. AMOC will continue to make every reasonable effort to work with permittees to improve communication and understanding. We hope more permittees will make the complementary effort that others are already making.
418. **Comment:** Public outreach education efforts regarding wolf behavior in the Blue Range Wolf Recovery Area and surrounding areas need to be enhanced for the purpose of improving the level of coexistence between livestock owners, residents, visitors and wolves. **Response:** See C/R 417. AMOC is striving to increase funding levels toward that end, has modified Project priorities and procedures (e.g. SOP 3.0: Outreach) to provide

for this, and is monitoring Project performance to ensure the desired results are achieved. Any help external parties can provide would be greatly appreciated.

419. **Comment:** Appendix II, #9, 52, and 55 (Technical): It would be valuable for the IFT to indicate to the public and to outside human dimensions experts the contexts in which the IFT has provided information regarding wolf behavior and means of preventing depredations as well as the content of the educational programs provided. In particular the frequency and locations of presentations as well as the means of advertising demonstrations, and public participation in presentations would demonstrate whether public education efforts are reaching the audiences that most need them. In addition it is important to indicate whether presentations include demonstrations in the field of methods that can be used to protect livestock. **Response:** IFT outreach presentations are documented in the Reintroduction Project's monthly updates (sign up for these at <http://azgfd.gov/signup>). Roll-up numbers for 1998-2003 will be incorporated into the final 5-Year Review. AMOC SOP 3.0: Outreach affirms the Project's commitment to effective outreach, identifies various outreach mechanisms, and standardizes outreach activities to help ensure timely, accurate, effective communication. An integral component of AMOC and IFT outreach activities is close communication with livestock permittees. All AMWG public meetings are posted on the AGFD and USFWS websites (<http://azgfd.gov/wolf> and <http://mexicanwolf.fws.gov>), and noticed through a self-subscription newsletter available at the AGFD website address listed above. Structured demonstrations of livestock protection methods have, to date, not been a component of IFT outreach presentations. However, the Project frequently provides information to livestock owners on proactive protection measures, on an event-driven, one-on-one basis. Ultimately, though, individual livestock owners will decide whether proactive measures are appropriate for them. See also C/R 415 and 416.
420. **Comment:** Part B, #10 (Administrative): It would appear that the most critical demonstrations at this point would be demonstrations to livestock producers and others such as pet owners, regarding non-lethal means by which to prevent wolf-human conflicts, especially livestock depredations. **Response:** See C/R 418 and 419. AMOC believes it is important to educate the public on all aspects of Mexican wolf ecology and behavior, including methods to reduce human-wildlife conflicts. AMOC and the IFT have provided a variety of demonstrations and materials to producers, such as the publication "Lines of Defense: Coping with Predators in the Rocky Mountains" (Gese et al. 2004). We will continue to work with permittees and other resource managers to provide the latest information on innovative approaches to reducing human-wildlife conflicts.
421. **Comment:** All information utilized by USFWS for public relations such as presentations in schools must be in compliance with the Data Quality Act. Will all the information be accurate, clear, complete (such as information on how the wolves eat live animals and could be carriers of FMD) and unbiased? **Response:** See C/R 415 and 416 on outreach. See C/R 319-321 and 324-325 on FMD. AMOC again notes that within the carnivores, only two species of bears (grizzly bear [Grosso 1957] and Asiatic black bear

[Neugebauer 1976 as cited in Hedger 1981]) have been identified as contracting FMD (Hedger 1981). Further, no FMD has been noted in the USA since 1929, thus the likelihood of wolves in the BRWRA carrying it seems sufficiently remote not to warrant special attention.

422. **Comment:** Both the good and bad sides of having wolves reintroduced need to be portrayed in public outreach efforts. **Response:** See C/R 412-421.
423. **Comment:** Ensure widespread postings on laws related to Mexican wolf reintroduction, punishment of offenders and reward offerings. **Response:** As discussed in AMWG meetings and the 5-Year Review, AMOC cooperators have posted such information widely within BRWRA and will continue to do so. Information on legal issues related to Mexican wolf reintroduction (e.g. illegal activities, reward offerings) is disseminated to the public in a variety of ways. For example, laws related to the killing, injuring, or harassing of Mexican wolves are published in the annual hunting regulations produced by AGFD, NMDGF, and WMAT. The BRWRA is liberally posted with signs and informational kiosks alerting the public that they are in wolf country, providing information on legal and illegal activities relative to Mexican wolves, and hot line numbers to call to report a violation of wildlife law. Similar signs are posted in USFS offices and other public places in and around the BRWRA. AMOC member agencies have also prepared and disseminated a variety of brochures relevant to these issues. USFWS and AGFD also post information on their respective websites. Finally, rewards are offered by USFWS, AGFD, and NMDGF for information leading to apprehension of individuals who illegally take protected wildlife, including Mexican wolves. Various NGOs have offered an additional \$35,000 for information regarding illegal killing of Mexican wolves. Reward information can be found in the Mexican wolf monthly updates (available through <http://azgfd.gov/signup>), or at <http://mexicanwolf.fws.gov/>.
424. **Comment:** More education is needed so people have less fear of wolves. **Response:** See C/R 412-423.
425. **Comment:** Page 85, Outreach, Technical: Program outreach needs to be more balanced and tell the real effects of wolves on ranchers, residents, hunters, campers, etc. **Response:** See C/R 413-423.
426. **Comment:** The impact following the Yellowstone wolf reintroduction was and continues to be enormous. The entire Nation should be aware of the significance of this program. The local education has been important but greater effort should be made at educating the rest of North America. Positive economic impact will follow. **Response:** To the extent that budgets and staffing allow, BRWRA Reintroduction Project personnel regularly participate in national-level conferences and workshops to disseminate information regarding Mexican wolf reintroduction and to gain insights from areas in which wolf reintroduction and management are issues. This information has been integrated into the 5-Year Review (e.g. Socioeconomic Component), and is reflected in ongoing management of the Project. Nevertheless, AMOC notes that Yellowstone differs

significantly from the BRWRA, including differences in the number and kinds of recreational opportunities available, visitor attractions beyond presence of wolves, pre-existing tourism focus, etc. The extent to which local economies in the BRWRA might benefit, or want to benefit, from tourism associated with presence of wolves remains largely conjectural at this time.

427. **Comment:** To access AMWG, affected persons have to leave work, drive long distances, perhaps rent a room and give their version of events. This is not a reasonable approach if the agency really wishes to ensure opportunity to the full spectrum of stakeholders. The restructuring has resulted in a tremendous burden to affected stakeholders and allowed the USFWS to further ignore their input. Restructuring IMAG was the worst thing that has happened to affected stakeholders since the program's implementation. **Response:** Agency and public criticisms of IMAG and Reintroduction Project adaptive management approaches prior to 2003 (e.g. Parsons 1998) were significant, and well reflected in the 3-Year Review comment (e.g. Stakeholders Workshop Final Report) and subsequent evaluation in September 2002 by the State Wildlife Commissions of AZ and NM. Still, AMOC understands that some interested or affected parties, perhaps for different reasons, might prefer the IMAG approach. Moreover, the AMOC approach of rotating regularly-held quarterly AMWG meetings between northern and southern towns within the BRWRA, and between AZ and NM, inevitably means local residents and distant parties both must travel farther to some meetings than to others. The IMAG alternatives seemed to be (depending on the year) fewer meetings, no meetings, or fewer locations for meetings. Each of these results in unequal participation opportunities and logistical hardship. Time and travel are hardships for anyone, but AMOC believes the current approach is fairer than any other that has been tried to date. Also, AMOC notes that the 5-Year Review did not surface any recommended alternatives to the current approach. If restructuring has been "the worst thing to happen to affected stakeholders since the program's implementation," it would help to have specifics on why and how, so AMOC might consider appropriate remedies.
428. **Comment:** Organizations that represent the livestock and outfitting industries are not being allowed to effectively participate in the program. We are seeing drafts of documents that NGOs have access to participate in developing and we are not. All we are allowed to do is comment on a near final product with no value to our industries in it. Any person or entity that cannot sign a multiple-use as-is support document should not be allowed participation. Multiple use of Federal lands is the law and allowing those who would violate the law into the process is appalling and creates more problems than it rectifies. **Response:** See C/R 49, 244, 245, 247, and 356 on NGO status. NGOs have the same access to AMOC documents as any other organization or member of the public. NGO personnel assisting in IFT wolf management and outreach activities on the ground are not allowed to participate in reviewing AMOC documents or discussions leading to AMOC decisions. AMOC documents are provided to all segments of the public at the same time, and in the same way, with one exception: a small supply (typically 35 to 50 copies) of each draft AMOC document pertaining to the 5-Year Review and a few other significant issues (e.g. draft SOPs) were provided to six individuals in rural areas of AZ

and NM to ensure that local “backcountry” residents had timely access to them. Also, AMOC often uses all public comment from quarterly AMWG meetings to develop initial drafts of Project documents. Interested parties who show up only at the final public discussion of such drafts, or who do not attend AMWG meetings, thus miss valuable opportunities to help shape them. Although AMOC and the agencies it represents fully support multiple-use laws, rules, and policies regarding public lands, AMOC cannot require that private citizens be allowed to participate in adaptive management only if they have the same values. Freedom of speech rights alone guarantee equal access to engage in public process.

429. **Comment:** Local residents, ranchers, county and local officials feel their requests for information goes unheeded. Ranchers in particular feel as if they are not given enough advanced warning about wolf locations in time to protect their livestock. County officials have expressed concerns that the economic impacts are being ignored, and the program is harmful to the economy. Communication between the USFWS and effected parties must improve and be on a timelier basis. **Response:** See also C/R 447 and 496. Concerns about timely information flow were significant elements of agency and public comment during the 3-Year Review. In 2004, AMOC still had the same concerns. Project SOPs were changed accordingly in 2005, outreach capacity in the IFT has been enhanced, and every IFT member has been directed to improve communication with the affected public. As of September 30, 2005, AMOC continues to believe that broad disclosure of location specifics would not be appropriate. The central problem is how to ensure that people who truly need to know details can be handled efficiently and effectively, without precipitating an unintended legal obligation to provide the same detail to everyone. AMOC (with significant assistance from Greenlee County) is continuing to explore alternative approaches, and has already adjusted its procedures pertaining to flow and detail of wolf location information to address this issue. With regard to economic impacts, those are addressed in the Socioeconomic Component (see also C/R 518-611).
430. **Comment:** The interface between Service personnel and ranchers should be increased. Work with ranchers to increase protection of livestock in wolf country. **Response:** The IFT works directly with permittees to protect livestock from wolf depredation. The IFT provides information on the Defenders program to assist ranchers by hiring additional riders, buying feed, or other alternative “proactive” approaches. The IFT also provides telemetry receivers to ranchers in areas of depredation concern, to help them prevent and find wolf depredations. Further, during its fieldwork, the IFT often locates dead livestock (including wolf depredations), and reports all such discoveries to the appropriate rancher(s) (see C/R 137). Additionally, the IFT has provided materials and labor to help ranchers erect chain link livestock pens, and provides weekly wolf locations to permittees to enable them to monitor areas with high wolf activity (see C/R 250). Overall, the IFT interacts with ranchers on a consistent basis regarding a variety of topics. However, AMOC and the IFT recognize that communication can always be improved, and will continue to strive to improve relationships with the ranching community.

431. **Comment:** On Page 42, management implications – technical: “As such we recommend that more research opportunities be explored and funded to provide insight to the overall Mexican wolf program.” Including some confirmation or analysis of social issues would be relevant to this review. There is a strong need to communicate with and respond to locals in a quicker and more consistent manner than accomplished to date. Consider an additional full time equivalent position located in Alpine. **Response:** See C/R 429 and 430, and the Socioeconomic Component. As suggested, AMOC will consider expansion of social research to provide further insight into Mexican wolf reintroduction in the context of local custom and culture (see the AMOC Recommendations Component). Although public comment at recent AMWG public meetings suggests progress was made in 2004 and 2005 regarding IFT management responses and communication with locals, AMOC will continue to pursue greater improvement in timeliness, consistency, and outcomes. Three new IFT positions were created and funded in 2005 (two AGFD positions were filled in 2005 and a NMDGF position will be filled early in 2006), and the need for more will be assessed on an ongoing basis (again, see the AMOC Recommendations Component).
432. **Comment:** USFWS is still not fully coordinating with the public and WS is trying every way they can to minimize the reported livestock losses in order to keep the wolf program up and running. **Response:** See C/R 216, 255, 278, 291, 292, 294, 297, 299, 513, 545, and 550-551.
433. **Comment:** Livestock operators are often snubbed and under-informed of planning and participation opportunities in favor of NGOs that can financially benefit the program and use it to further their own agenda. This is by far the worst program problem that needs to be rectified. **Response:** See C/R 428-430. NGOs, regardless of their agenda or funding, do not have greater planning and participation opportunities in this Project than local livestock operators do. They might take greater advantage of available opportunities by participating more actively (organizationally) in public meetings or in providing comment, but they do not have greater access to AMOC and certainly not to the IFT. Conservation and environmentally oriented NGOs argue that the opposite is true. They believe they have less access, based partly on daily IFT-rancher interactions and partly on livestock operator private meetings with congressional staff and USFWS in February 2005, during (but not as a part of) the 5-Year Review.
434. **Comment:** Public opinions have not been used in making management decisions on the recovery of wolves. Past management seems to listen to opinions of special interest groups and government personnel involved in the project. If there is to be recovery, there needs to be a change in the future decision making, a collaborative effort that will address the issues of the community before implementing any decisions. If the community has ownership in this program, it would benefit the recovery of the Mexican wolf. We as ranchers would like to be part of the solution and not part of the problem. **Response:** AMOC makes use of all relevant information, regardless of source, to shape and implement its decisions. Information, including public comment, is heeded to the extent that its substance and credibility merit such. Addressing the needs of local communities

necessarily occurs within the context of a previously-approved (via the FEIS), ongoing wolf reintroduction effort that is guided by a nonessential experimental population rule that AMOC did not enact, and by Federal, State, and Tribal laws with which AMOC, the IFT, and the Project as a whole must comply. AMOC cannot wait until all possible issues and alternatives and viewpoints have been discussed and addressed to act. Wolves are on the ground, more are coming (whether through release or natural recruitment), and appropriate management actions must be carried out now. Nevertheless, failure to develop local community support during the crucial early years of 1998-2002, or to remedy this problem since then, is a significant obstacle to success. Equally, local community ownership of wolf reintroduction is essential to long-term success, thus progress must surely begin with enhanced, constructive participation by local communities and local governments. Greenlee County is modeling that approach, but others must emulate it and AMOC must demonstrate responsiveness to it. So must all other interested and affected parties involved in this complex issue. AMOC would appreciate any assistance that any party would care to make toward that end.

435. **Comment:** Significant turnover at the field level has frustrated the development of constructive working relationships with citizens living in wolf-occupied areas. Acceptance of wolves by the local community is dependant upon trust and good working relationships with the agency and field team, both of which suffer from frequent turnover. USFWS and its cooperators should make every effort to minimize turnover. **Response:** Staff turnover can impede progress, for many reasons. Some factors in staff turnover are at least partially within control of AMOC cooperators, while others are not. AMOC is well aware of this issue and is striving to increase staff retention and to improve working relationships and trust with local communities throughout the BRWRA.
436. **Comment:** Pursue interagency communication and projects with regard to habitat enhancement through land restoration efforts (i.e. watershed restoration, juniper removal, native plant restoration, grassland enhancement). **Response:** State and Tribal agencies are responsible for prey base management in the BRWRA, and thus provide appropriate habitat recommendations to land management agencies and private landowners. However, there is no indication that habitat or prey base is limiting wolf population growth in the BRWRA. Thus, although the projects advocated in this Comment are commendable, they are beyond the scope of the 5-Year Review and AMOC.
437. **Comment:** We recommend increased education and outreach. USFS personnel are available to partner in outreach in the surrounding communities. **Response:** See C/R 413-425. Also, AMOC will direct the IFT to pursue greater USFS participation in local outreach and education efforts.
438. **Comment:** Use ranchers who have learned to live with wolves in your outreach efforts. **Response:** Such ranchers have been brought to AZ-NM in past years, from Northern Rockies States, to provide relevant personal insights to agency staff and the public. However, this has not occurred since 2001, or with specific outcomes in mind. Thus, after considering all public and cooperator comment during the 5-Year Review, and its own

evaluations, AMOC has made recommendations regarding outreach and IFT expansion on an agency-specific basis that could incorporate the suggestion in this Comment (see the AMOC Recommendations Component).

439. **Comment:** There should be discussions with ranchers who have learned to live with and tolerate predators. **Response:** See also C/R 438. AMOC notes that this has occurred in the AZ-NM reintroduction effort, with limited success. Some ranchers from local communities who have contributed to public discussions in this way have subsequently expressed concerns about being ostracized in their local communities, because of their beliefs about the need for and possibilities of co-existence (i.e. between wolves and ranchers, and between wolf advocates and ranchers). AMOC will strive to provide more opportunities for such discussions to occur, but tolerance within and among the peer groups will be essential to substantive exchange of ideas.
440. **Comment:** Monitoring and removal considerations should be appropriate to the level of interaction and consistent with the Recovery Plan. The mere presence of wolves in the vicinity of livestock is unavoidable if wolves are to be recovered in the Blue Range Wolf Recovery Area. Provision of telemetry equipment to non-IFT members may create more apprehension than help, and has created a sense of disparity or preferential treatment with other public land users. **Response:** AMOC established SOP 13.0: Control of Mexican Wolves in 2005 to address the first concern, ensuring that monitoring and removal considerations are appropriate to the level of interaction. All management actions in the Reintroduction Project, including those, are consistent with the existing 1982 Recovery Plan (USFWS 1982). As for the concern that providing telemetry equipment (receivers) might create more apprehension than help, AMOC will defer to individual ranchers to resolve that for themselves; those who believe benefits are worth the risks will be loaned available equipment. However, AMOC notes that most ranchers who have been loaned such equipment thus far have expressed gratitude for its availability, rather than complaints about additional stress. As noted in C/R 243, some individuals have complained about this “preferential treatment” for ranchers. AMOC believes this disparity appropriately reflects disparate impacts of wolves, but is prepared to consider loaning the same equipment (subject to availability) to any resident in the BRWRA who demonstrates a substantive need.
441. **Comment:** We recommend that efforts be taken to secure additional funding from all agencies involved and be open to discussion on shared work. **Response:** Per the MOU that now drives the Reintroduction Project, AMOC is making such efforts and will continue to do so. We have already been successful in securing funds by which to increase IFT staff by three FTEs. We have also established a process by which to ensure that responsibilities and resources within the Project are appropriately shared, so each agency’s contribution of funding, staff, and other resources is more effectively integrated into the overall cooperative effort. AMOC believes significant progress has been made in this area since 2003. However, we also note that failure to establish a sufficiently funded government program by which to address livestock depredation issues (i.e. through incentives for prevention as well as mitigation of losses) has been and will continue to be

a major obstacle to success. After considering all public and cooperator comment during the 5-Year Review, and its own evaluations, AMOC has made various recommendations regarding addressing funding issues for all agencies involved in the Project (see the AMOC Recommendations Component).

442. **Comment:** The agencies or the IFT as appropriate must develop an identifiable human resource that can independently monitor the affects of wolf recovery on the local population and economy and interact with the same. Intermittent “town hall meetings” are not sufficient to evaluate and accommodate the local reaction to wolf recovery efforts. Wolf recovery impacts on a local community are not just based on cattle depredations but involve perceptions and fear that are based sometimes on fact and sometimes on misperceptions of fact. This issue can not be evaluated without a direct and continued effort to understand and capture data more frequently. For example, ranchers have reported non-lethal physiological impacts on livestock such as weight loss, stress and lower birth rates and increased costs due to alteration of land use for forage and additional labor and other expenditures to prevent depredation. If true, this impacts the value of the operation in addition to depredations. Utilizing WS personnel for this matter is not sufficient. A generalist or a team should be hired to help better understand and manage the social nature of this issue on the ground. All interested parties will benefit whether they are in favor of Mexican wolf recovery or not. Better collection of data surrounding the social/economic issue could help develop solutions so factions become cooperators and thus contributors over the longer period of time required to recover the species. **Response:** After considering all public and cooperator comment during the 5-Year Review, and its own evaluations, AMOC has made recommendations regarding IFT expansion that would address the concerns inferred from this Comment (see the AMOC Recommendations Component).
443. **Comment:** NMDA believes the program would benefit from the development of a landowner agreement process with the purpose of signing up willing landowner participants for the recovery program. **Response:** After considering all public and cooperator comment during the 5-Year Review, and its own evaluations, AMOC has made a recommendation regarding IFT expansion that would incorporate the suggestion in this Comment (see the AMOC Recommendations Component). AMOC looks forward to NMDA assistance in developing, funding, and administering such a program.
444. **Comment:** NMDA recommends a grant program administered by the counties for hazing and shepherding to aid the producers. The Defenders hazing program is incorrectly designed. The counties should run the process expending funds through local sources to haze wolves from livestock, to help protect health and property in the affected area, and to respond to problem areas with non-lethal solutions to wolf interactions. If run properly, this could discourage wolves from approaching livestock or homesteads. **Response:** See C/R 441 and 444. After considering all public and cooperator comment during the 5-Year Review, and its own evaluations, AMOC has made a recommendation regarding voluntary incentives-based programs that would incorporate the suggestion in this

Comment (see the AMOC Recommendations Component). AMOC looks forward to NMDA assistance in developing and administering such a program.

445. **Comment:** Apply the science now and let others help you deal with vocal opponents through creative ideas and means. The objective and requirement under the ESA is the expedited and economical recovery of the Mexican wolf – not the appeasement of every opposing voice out there. **Response:** AMOC believes science should inform conservation and adaptive management practices, but multiple-use. Tribal sovereignty, and private property rights must also be considered. The ESA commits Federal agencies, and (via Section 6 Agreements or Statements of Relationship and other agreements) State and Tribal cooperators to furthering recovery, but also prescribes approaches by which to ensure that other values (and opinions) are appropriately considered.
446. **Comment:** The recovery effort is a patchwork of concerned parties – take that recovery effort to all your publics. Do not ignore the vocal, local minority but also do not simply react to their most recent concerns. Focus on outreach efforts that bring home how coexistence is possible for livestock owners, residents, vacationers, visitors and wolves. Make the recovery effort a part of the community and it will do much to make recovery sensible, possible and workable. **Response:** See C/R 417, 430, 434, 435, 442, and 479.
447. **Comment:** Local county governments need to be made full partners in the wolf program. **Response:** See C/R 429 and 496. AMOC has made repeated overtures for more participation by County governments. The MOU under which AMOC operates provides for such partnership. Limitations in the MOU on County roles were requested by Counties participating in structuring the MOU. Only Greenlee County AZ has remained a constructive, persistent partner since AMOC began work. The door remains open to all Counties in the impact area, but the Counties must begin participating within the existing framework or let AMOC know what they would want changed to enable them to participate. Meanwhile, AMOC will continue to hold public and non-public meetings in locations that facilitate County participation.
448. **Comment:** The USFWS does not cooperate with, report to, or coordinate with the USFS unless a closure notice is needed. **Response:** USFS is an active, constructive member of AMOC. In 2005, AMOC finalized a series of SOPs that detail how the reintroduction effort is managed. Five of these SOPs describe how coordination with USFS Ranger Districts is handled during: (SOP 5.0) Initial Wolf Releases, (SOP 6.0) Wolf Translocations, (SOP 7.0) Temporary Closures, (SOP 15.0) Helicopter Capture and Aerial Gunning (SOP 18.0) Aerial Telemetry. In addition, individual Ranger Districts in and around the BRWRA receive weekly wolf updates from the IFT, and can receive automated monthly Project reports from AGFD (<http://azgfd.gov/signup>). Members of the IFT also stop by Ranger Districts whenever possible to meet with USFS staff and update them on the Project. Also, USFS is evaluating hiring a communication liaison for the IFT, to further improve and strengthen communication between the Project and individual Ranger Districts. The lines of communication haven't always been perfect, but

AMOC and IFT pledge to continue to seek ways to improve on the timeliness and quality of information exchange with our internal cooperators as well as with the public.

449. **Comment:** We are concerned about the close ties of the USFWS and Defenders who pay for cattle losses. This partnership gives Defenders clout in determining the cause of death in a reported wolf depredation and this is highly unprofessional in a government program that should be fair to all. This partnership could terminate at any time leaving the rancher at a total loss of property **Response:** Virtually since reintroduction began in 1998, Defenders has voluntarily provided invaluable assistance to the field effort (to the benefit of the ranching community) by funding interns and (through USFWS) a student-trainee exchange program with Mexico. Although these individuals have mostly been temporary (seasonal) employees, they operate under direct daily supervision by IFT (agency) staff. As IFT assistants, these individuals sometimes are present during depredation investigations, but they do not participate in recommending or making final decisions about such investigations. They have no influence on investigation outcomes. In accordance with SOP 11.0: Depredation on Domestic Livestock and Pets, WS IFT members have the lead on conducting wolf depredation investigations. All other IFT staff are available to assist WS to ensure timely investigations. With regard to compensation issues, the Defenders program has never been presented as a panacea for all depredation issues, but it is an important asset. See also C/R 428-430.
450. **Comment:** The livestock industry has been given a disproportionate amount of control concerning the reintroduction project and the related political pressures are preventing a successful program. **Response:** The Reintroduction Project is conducted in full compliance with a Final Rule, including efforts to address livestock depredation and nuisance problems. The Final Rule and the associated EIS were outcomes of several years of public process subsequent to a court settlement between USFWS and various environmental groups. The Project thus reflects both a legal mandate under the ESA and a judicial mandate from the court. Participation by the livestock industry has helped ensure that local perspectives and concerns are represented as adaptive management decisions are shaped and implemented. Their participation has not, however, resulted in disproportionate control, even when political pressure has been high. The USA operates under a framework of participatory government, and those who do not participate have little ability to help shape decisions that affect their lives.
451. **Comment:** Given the current staffing and funding crisis, I suggest involving the public as much as possible as cheaply as possible. Use volunteers both for technical and outreach functions; engage public interest and harness enthusiasm by emphasizing the role of ecological and intrinsic valuation of the subspecies in your agency team's public approach; look at allowing the team to officially but not financially publicly support any external efforts to foster consensus-driven discussion between various stakeholders and the public in addition to the internal efforts the agency team is already in charge of; make full use of allies wherever you can find them and try to more overtly recognize those parts of the public and stakeholder constituency who may be more able to consider themselves less overtly financially tied to the absence of the subspecies on the landscape.

- Response:** After considering all public and cooperator comment during the 5-Year Review, and its own evaluations, AMOC has made recommendations regarding possible IFT expansion that would facilitate integrating some of the suggestions in this Comment (see the AMOC Recommendations Component).
452. **Comment:** Even though the USFS is not considered a primary cooperator, it is evident from talking with locals that a consistent USFS presence with the program would ensure more timely and appropriate communication. **Response:** See C/R 448.
453. **Comment:** We are concerned about the lack of legitimate input from the livestock community. They have the most to lose with this recovery plan yet are the least sought out for input during the review. **Response:** See C/R 427, 428, 447, 450, 455, and 496.
454. **Comment:** Local residents input regarding potential release sites needs to be taken more seriously. **Response:** The USA is a patchwork quilt of public and private priorities, values, and opinions; rarely can one be set aside entirely in favor of another. Finding a balance between opposing values is the essence of democratic process, and managing natural resources. While pursuing wolf reintroduction as a means of contributing to recovery, AMOC must therefore consider public lands, private property rights, and disparate opinions and preferences of the full spectrum of interested and affected parties. Each of these must be weighed against all others, and the best possible decision must be made. Sometimes such decisions are “win-win,” enabling stakeholders favoring different approaches to see that their input was considered and actually used in shaping the decision. Other times, a situation requires a decision that is antithetical to the wishes of one or more groups, the proverbial “win-lose” or “lose-lose.” Many people don’t like decisions that don’t go their way, but give and take (lose today, win tomorrow) over the long haul is vitally important to democratic process. In any event, AMOC always seriously considers the potential effects of wolf reintroduction (e.g. release site selection) on local residents, and relevant input from such individuals, before making decisions. SOPs 5.0: Initial Wolf Releases and 6.0: Wolf Translocations both commit the IFT to holding local meetings as necessary to discuss potential releases and translocations. See also C/R 102 regarding USFS NEPA compliance in 1997-2000 on release and translocation site selection and approval.
455. **Comment:** AMOC is loaded with Feds and NGOs and hardly any stakeholder involvement. AMWG is supposed to be the forum for stakeholder input but the way it is run, little if any real action is taken on input given there. The whole team consists of pro-wolf, anti-rancher, and anti-anybody who stands in the way of wolf recovery. **Response:** AMOC is composed entirely of State, Tribal, and Federal agencies. The MOU under which AMOC operates also provides for formal Cooperator status for any County or other State agency that chooses to sign on. AMOC also encourages active “informal cooperator” participation by any County or State agency unwilling to sign the MOU. Moreover, AMWG is open to participation by anybody, affiliated or not. If the public AMWG meetings are dominated by entities the Commenter does not consider

stakeholders, perhaps it is because those persons and organizations show up and the “true” stakeholders do not. You can lead a horse to water, but you can’t make it drink.

456. **Comment:** The NGOs, specifically CBD and TESH need to be taken out of full-cooperator status since they are anti-multiple-use and anti-rancher. **Response:** See C/R 49, 244, 245, 247, 356, and 455: no NGO has Cooperator status with AMOC. NGOs are eligible to participate in the public AMWG meetings, and several do. NGOs and other entities are also encouraged to contribute resources to the IFT to assist with wolf management on the ground, and some do, primarily Defenders and TESH. TESH also cooperates with USFWS in the Mexican wolf captive breeding program. But, no NGO is a Cooperator in AMOC, nor do any participate in making AMOC decisions, other than by providing comment and recommendations through AMWG, as can any other organization or member of the public.
457. **Comment:** The technical sub-group of the Recovery Team should have been multidiscipline. The failure to include the social and other physical sciences outside wolf biology and behavior has resulted in the inability to properly evaluate potential environmental impacts. The Counties and other State agencies were regulated to “stakeholders.” The lack of a multidiscipline scientific evaluation and defective participation of elected representatives of the affected citizens has seriously eroded the credibility of any information being developed by the Recovery Team and the USFWS. **Response:** The structure, function, and activities of the SWDPS (Gray Wolf or Mexican Wolf) Recovery Team are outside the scope of the 5-Year Review. Concerns regarding the Recovery Team should be addressed separately and directly to USFWS, which convenes the Team, defines its purpose, and enables its work on recovery issues. See C/R 64, 96, 109, 357-358, and 368.
458. **Comment:** The technical sub-group of the Recovery Team was made of entirely life-long wolf promoters and several non-government organization activists doubling as biologists. Not one person with livestock expertise was allowed to participate. It also seems as if the technical end of the planning was completed prior to the onset of the team. **Response:** See C/R 64, 96, 109, 357-358, 368, and 457.
459. **Comment:** USFWS should adopt the 5-Year Review’s recommendations for improving the Mexican wolf program by creating more field opportunities for biologists from Mexico to gain valuable wolf management experience, which will aid wolf recovery in other regions. **Response:** The Reintroduction Project has used funding from Defenders and a USFWS intern program to enable several biologists and officials from Mexico to visit and actively participate (for up to six months) in the BRWRA field effort since 2000. At annual meetings of the Trilateral Committee (USA, Canada, and Mexico), AMOC also continues to advocate closer linkages between wolf reintroduction efforts in Mexico and those underway in the AZ-NM.
460. **Comment:** The independent review of the 3 year review performed by AZ and NM could hardly be considered an independent review. Both State agencies are highly dependent on

USFWS for funding to run the program. Instead, the review was conducted with a built in bias for wolf reintroduction by individuals fiscally dependent on the program. The fact that the review promoted the position that the State's role needed to be increased was predictable. Contrary to enhancing public trust, the outcome resulted in increased cynicism. There has not been any increase in meaningful response to the Coalition's member counties and their roles as elected representatives of their citizens has been diluted to participation as mere "stakeholder and interested parties." **Response:** Consistent with guidance from Congress (see C/R 45), USFWS asked the two States to conduct an independent review in 2002, not to conduct an "objective" review. Neither State has ever pretended that the review was "objective;" It was intended to be "independent" of the 2001 review, i.e. unfiltered by USFWS. This objective was indeed accomplished. Funding issues had no impact on the State review, as should be evident from the sharp criticisms in the review. The State review's recommendation for increased State presence was predictable, given that this position had been advocated since the State role was known to be eroding in October 1997, even before wolves were first released to the wild. As for dilution of the Coalition's member counties role to participation as "mere 'stakeholders,'" that is a reflection of decisions made by some Coalition members. The door was opened in February 2003 for the Counties to help shape a new adaptive management program, and AMOC has held it wide open since October 2003 for Counties to sign the MOU (which several Coalition members helped shape), and thus be granted full Cooperator status per the MOU.

461. **Comment:** There is no cooperation between the wolf program and the public. I have been lied to by everyone I have had contact with since the program started and have also been called a liar by wolf program staff. **Response:** AMOC believes there is always room for improvement in cooperation. However, ample evidence exists that cooperation is occurring, and this is reflected in the 5-Year Review. Regardless, AMOC does not condone lying or calling anyone a liar. If this has happened, we sincerely regret it, but, absent specifics, there is nothing we can do to remedy the situation. If the Commenter wishes to pursue this further, please contact any member of AMOC.
462. **Comment:** The rule interpretation and translocation of "problem" wolves have not produced the effect of improving relations and building trust with those affected by wolves on the ground (Administrative, Page 9). **Response:** AMOC is obligated to manage Mexican wolves as necessary to comply with the Final Rule and thus to make progress toward the BRWRA population objective. We hope more timely, effective, and consistent management efforts will eventually improve relations and build trust with affected parties. We believe there is movement in that direction over the two years that AMOC has been operating, and we hope to see more progress in the next few years.
463. **Comment:** USFWS has lied all along about the 100 wolves as a population goal and about keeping the boundaries – you knew all along you would change both to unlimited number of wolves and no boundaries. **Response:** See C/R 64, 96, 99, and 359 and B.2 in the Administrative Component regarding the BRWRA population goal. The Final Rule required 3-Year and 5-Year Reviews of the Reintroduction Project to ensure that the need

- to modify the population goal and the MWEPA and BRWRA boundaries was reassessed while considering new information gained through reintroduction and research. Thus, after considering all public and cooperators comment during the 5-Year Review, and its own evaluations, AMOC has made recommendations regarding possible changes in the Final Rule or creation of a new Final Rule to address boundary issues (see the AMOC Recommendations Component) (see also C/R 99 and 359). The USFWS Region 2 Director will be responsible for acting on AMOC's recommendations in this area.
464. **Comment:** The USFWS, AGFD, and NMDGF should cease bending over backward to accommodate the selfish, short-sighted, and vocal minority (i.e. ranchers) that oppose wolves. **Response:** This Comment does not accurately portray ranchers as a whole, or AMOC's efforts to pursue wolf reintroduction on a public lands, multiple-use landscape with significant private in-holdings.
465. **Comment:** There is a conflict of interest for the Recovery Team to ignore data that would threaten their livelihoods such as achieving population goals. **Response:** See C/R 64, 96, and 99.
466. **Comment:** Page 103, #73, Technical: The public has been falsely misled to believe the wolves would stay put. **Response:** Since reintroduction was first discussed with the public in the late 1980s, agency representatives have spoken consistently and forthrightly about the likelihood that if Mexican wolves were reintroduced, some might localize and others might travel hundreds of miles. This was all based on conjecture, since no wild wolves existed to inform us. Experience has now proven that Mexican wolf packs range over large areas, and individual wolves sometimes disperse hundreds of miles. As predicted, some wolves have established home ranges in areas in which they were released, while others have moved to other areas to establish a home range. This was repeatedly acknowledged prior to reintroduction of Mexican wolves in the BRWRA, and remains true today. Wolves can exist anywhere within the BRWRA, and are fully expected to move outside it to some extent. AMOC is, however, generally required to remove packs that establish territories wholly outside the BRWRA, per guidelines in the Final Rule. The fact that this requirement exists in the Final Rule suggests that the public and cooperating agencies were both keenly aware that wolves cover large areas.
467. **Comment:** You failed to report you have also received extensive public resistance to modifying the rule to allow for direct releases into NM. **Response:** AMOC has modified the 5-Year Review to clarify that public comment was received in opposition to, as well as in support of, modifying the Final Rule to allow direct releases into NM. See also C/R 107.
468. **Comment:** The description of the Gila NF (Administrative, Page 18) is deceptive. The wilderness areas do not have adequate populations of native ungulates and do contain permitted livestock. **Response:** State and Tribal wildlife agencies provide information to AMOC on native ungulate (prey) populations (see C/R 23, 202-203, 207, 396, and 413). NMDGF asserts through such information that native ungulate populations in the Gila

NF, including the Wilderness Areas, are sufficient to sustain wolves and current and projected hunter use. See also C/R 281.

469. **Comment:** The authors of the 5-Year Review are biased against the livestock industry and rural lifestyles and their desire to portray their actions in a positive light prevent an accurate disclosure. This review should have been done by those completely divorced from the program and wolf advocacy. **Response:** See C/R 460. AMOC is responsible for conducting the 5-Year Review on behalf of all cooperators in the Reintroduction Project. Neither AMOC nor the IFT is biased against the livestock industry or rural lifestyles. To the contrary (see C/R 247 and others), AMOC has skewed its public participation processes to ensure that local interests have disproportionate opportunities to contribute to adaptive management of this Project, within the framework set forth in the MOU under which AMOC operates. Moreover, AMOC is committed to ensuring that wolf management actions are described on the basis of accurate information, regardless of whether this results in showing AMOC or the IFT in a positive or a negative light. Although AMOC is committed by law and ethics to contributing to Mexican wolf recovery through the Reintroduction Project, our actions are not based on the blind advocacy that we infer the Commenter means. Finally, AMOC and the IFT were the most appropriate parties to conduct this Review; we have the experience, information, and resources to do it in timely and objective fashion.
470. **Comment:** Limited monitoring has led to problems not being investigated in a timely basis. We call your attention to (Page 2, Item 2, Justification, Administrative): “Monitoring was limited by availability of flights which reflected limited air support and lack of funds to ensure that flight time could be increased to more fully meet project needs; and basic questions about wolf movements and behavior, impacts on native and domestic prey, wolf relationship to total predator load and all aspects of the human dimension (social, cultural and economic issues) etc. remained unanswered due to lack of funds.” This statement is totally devoid of credibility. **Response:** Since AMOC began functioning under its MOU of October 2003, its efforts to increase agency commitments of resources to the IFT have added three full time employees, provided expanded emergency assistance from a variety of non-IFT agency employees during management actions, and generally greatly enhanced IFT response capability for nuisance and problem situations. Development of appropriate SOPs has also enhanced management responses, and provided local residents with more certainty as to how and when the IFT will respond to specific situations. In short, the Project’s performance bar has been greatly elevated since 2003, and the public now can more objectively assess whether operates up to that standard. Other improvements are expected to result from outcomes of the 5-Year Review. However, as the wolf population grows, or spreads out, IFT capacity must continually grow to ensure that performance drop-offs do not occur.
471. **Comment:** A program should be developed for issuing guiding permits and market a program targeting wolf enthusiasts and conservationists who wish to see Mexican wolves in the wild in order to promote an additional economic benefit to the residents of the recovery area. **Response:** Although AMOC advocates pursuit of wolf tourism activities

to enhance public appreciation for and understanding of Mexican wolves, and contribute to local economies, administrative responsibility for such a program lies with USFS, not AMOC. Wolf tourism is a private enterprise, beyond the scope of AMOC authorities. Even so, AMOC believes wolf-related tourism could provide economic benefits within the BRWRA. In the socioeconomic analysis portion of the 5-Year Review, several interviewees provided anecdotal accounts on this topic. A conference in Alpine AZ, in 2003, hosted by an NGO, focused on "potential [tourism] ideas related to reintroduced wolves." More recently, locals have discussed developing a museum on local ecology that could feature wolves, and a charter school that could use wolves to study ecology. Although wolf-related tourism in BRWRA is already occurring, it has not resulted in economic benefits that could be detected by socioeconomic analysis in the 5-Year Review.

472. **Comment:** Wolves should not be secondary to livestock on public lands in the BRWRA. We recognize that grazing has a long tradition in the west and giving priority to wolves would be controversial. Mexican wolves are part of the nation's wildlife heritage and creative ideas should be used to solve this issue. Voluntary buy-outs of grazing leases to minimize conflicts between wildlife and grazing should be explored. **Response:** Under the Multiple Use Mandate of the USFS, wolves and grazing are both recognized as having value on National Forest system lands. Conservation of the Mexican wolf is a USFS obligation under section 7(a)(1) of the ESA. Livestock grazing is a traditional use of the National Forest and part of the USFS multiple-use mandate as authorized and regulated through the Multiple Use-Sustained Yield Act of 1960, among other applicable laws. With regard to permittee buy-outs, there is no law, regulation, or policy that would allow for a Federal buy-out program (see C/R 227). A Federal buy-out program would have to be approved by Congress and signed into law by the President. Meanwhile, through AMWG, AMOC and various public interest groups are working to develop creative ideas to minimize conflicts between wildlife and the ranching industry.
473. **Comment:** Conflicts with management and recovery of other Federally-listed species have occurred. Restrictions of closure areas have affected landscape management decisions regarding grazing and fire in the Blue Range Wolf Recovery Area. **Response:** Use of fire as a management tool, like other land management activities, is carefully coordinated within USFS (in consultation with USFWS) to prevent or reduce conflicts with a wide variety of multiple-uses on National Forests. USFS is mandated by section 7(a)(1) of the ESA to contribute to conservation of the Mexican wolf (see also C/R 472). Therefore, USFS has been an active participant in reintroduction and recovery efforts for the species. AMOC is, however, aware of two instances in which temporary wolf closures (e.g. for den sites) have conflicted with initial plans to conduct control burns on National Forest lands. These issues were resolved to provide benefits for both interests. We are not aware of any other conflicts with management and recovery of Federally-listed species. Some BRWRA livestock operators have, however, adjusted operations to reduce livestock-wolf interactions.

474. **Comment:** Mexican wolf recovery should formally enjoy at least an equal priority to livestock grazing on public lands. **Response:** See C/R 472 and 473.
475. **Comment:** Livestock depredation should not be considered just cause for removal of wolves. Livestock operators who lease public lands for personal profit must accept livestock depredation as a cost of doing business on public lands. **Response:** See C/R 348, 472, and 473.
476. **Comment:** The wolf program is starting to cost the NMGF as they cut 100 elk bull tags in the Wilderness this past year. The loss of tags means less hunting dollars into the general economy. **Response:** The number and type of elk permits issued in NM are based on unit management objectives and current population numbers, composition, and trends relative to those objectives. Within some portions of the Gila NF Wilderness Areas, the number and type of elk permits issued have recently been modified in an attempt to prevent populations from falling below these objectives. Decisions to modify permit numbers were, however, in no way influenced by presence of Mexican wolves. Information within the Socioeconomic Component indicates that hunter days within the NM portion of the BRWRA have increased during the period covered by the 5-Year Review.
477. **Comment:** The wolf program is costing us ranching jobs as cattle permits are cancelled to give the wolf room and ranching families must move. **Response:** No allotment permits have been canceled to provide “room” for Mexican wolves.
478. **Comment:** Because the majority of conflicts the wolves have had with humans were the result of wolves attacking dogs, the USFS should require people visiting forests to leave their dogs at home. In addition to provoking wolf attacks, dogs are a serious nuisance to other forest visitors and wildlife. **Response:** See C/R 349 and 350. AMOC will not recommend dog-control rules, regulations, policies, or ordinances beyond those already implemented by the appropriate County, Tribal, and/or local governments, or beyond the local closures occasionally (and temporarily) implemented through the USFS for den sites and/or rendezvous sites. Leashing dogs in wolf country is often advisable for several reasons, but AMOC cannot require it and will not recommend regulations to require it for all circumstances.
479. **Comment:** People who live in urban areas should have no “say so” for anything regarding the wolf program since it is the rural people who are affected. **Response:** See C/R 417, 430, 434, 435, 442, and 446. Wolf reintroduction in AZ-NM is occurring across a mosaic of private, public, and Tribal lands. The stakeholders in wolf decisions thus include the full spectrum of Americans. In a participatory democracy, such as we have enjoyed in this country for more than 200 years, that means all opinions count and all voices must be heard. AMOC is committed to ensuring that the voices of those most directly affected by wolf reintroduction are heard and heeded as decisions are shaped, made, and implemented, but other voices should also be heard.

480. **Comment:** The almost certain curtailment of hunting will effect a huge segment of our society. The wolf stands to affect a great many lives and lifestyles in a very harmful way not addressed in the social report. **Response:** See C/R 468. To date, no detectable changes have occurred to big game populations as a result of wolf reintroduction. No changes in the number of permits issued for big game hunts have been made as a result of wolf presence, either. Although no impacts to prey populations from wolves have been observed to date, wildlife management agencies do have the authority to implement wolf management actions if mortality by wolves results in unacceptable impacts to game populations. Unacceptable impacts to game populations are defined within the Final Rule as “2 consecutive years with a cumulative 35 percent decrease in population or hunter harvest estimates for a particular species of ungulate in a game management unit or distinct herd segment compared to the pre-wolf 5-year average,” The Final Rule also encourages wildlife management agencies to develop their own definitions of unacceptable impacts for approval by the USFWS. WMAT and AGFD have both adopted 25% as their thresholds for unacceptable impacts.
481. **Comment:** Catron County Commission requests the IFT always notify the County sheriff at the earliest possible time when there is a livestock incident potentially involving wolves. **Response:** The private individual (e.g. livestock operator) involved in such a situation has the right to decide whether to contact the County Sheriff. As AMOC discussed with Catron County in February 2005, the IFT cannot and will not violate that individual prerogative. However, if a livestock operator wants to contact the local Sheriff regarding a livestock incident that might involve Mexican wolves, WS IFT staff will work with the operator as necessary to help make that contact.
482. **Comment:** The difficulties of reconciling the depredation and other data between agencies is an indication that there is no desire to have accurate information on the program. **Response:** The draft 5-Year Review showed the referenced differences in data simply to ensure the public was aware of the discrepancies. The final 5-Year Review will provide reconciled numbers for depredations.
483. **Comment:** For USFWS to allow CBD incidental and non-scientific data collection into this document is biased and smacks of corruption. Whenever a county or a rancher or livestock organization provides data, it is apparently run through a shredder in Service offices. AMOC should have worked with the livestock industry prior to placing this pseudo-science into the document and until they do, this “data” should be removed from the 5 year review. **Response:** See C/R 257, 296, 460, and 469 regarding carcass and depredation information, which seems to be at the heart of this Comment. As noted in C/R 257, the carcass issue was first raised during the 3-Year Review by a panel of independent scientists. Currently, there are no laws, regulations, or policies that could require removal of livestock carcasses from public land grazing allotments or private lands. This is a matter of law, not policy or preference. Because the issue was raised during the 3-Year Review, and not clarified (due to lack of follow-through on that review), it was carried forward in the 5-Year Review. However, AMOC did not include subjective data on that issue from an environmental group. The CBD provided data that it

had obtained from WS through FOIA. AMOC only used that information to ensure that the 5-Year Review reflected all the available records. Each depredation incident and each carcass feeding incident included in the 5-Year Review was derived from a WS database, independent of the CBD's information.

484. **Comment:** The IFT and the Forest Districts coordinate wolf releases and grazing management when possible and will continue to do so. The Districts will continue to work to minimize wolf/livestock interactions where possible. The USFS requests that the details of releases, translocations and confirmed predations be shared with the Forest in a timely manner so that we may be included in discussions to identify appropriate locations and actions. **Response:** Per SOP 5.0: Initial Wolf Releases and SOP 6.0: Wolf Translocations, the IFT is required to submit draft proposals to AMOC for Lead Agency review, including discussion in an AMOC meeting. As an AMOC member, USFS is always represented in AMOC meetings. Therefore, USFS input on translocations and releases occurs early in the decision-making process. Additionally, as proposals are further developed, the IFT is required by SOPs 5.0 and 6.0 to seek input from individual District Rangers and USFS staff, to determine site selection and suitability and to ensure compliance with NEPA and any applicable site-permitting processes.
485. **Comment:** The data collecting and studies need to be easily accessible to the public. They should be listed and links provided online. Current wolf locations should be included in each monthly report. It is difficult for the public to know how to know where wolves are which can influence where they camp, hunt, etc. **Response:** Dissemination of data, in the form of Annual Reports as well as the 3-Year and 5-Year Reviews, is achieved in part through online postings (<http://azgfd.gov/wolf> and <http://mexicanwolf.fws.gov>). Persons without Internet access may request single hard copies from any AMOC Cooperator. Published studies are available in the scientific literature at various libraries. Multiple studies are in progress in the BRWRA and their final reports will be accessible to the public when they are completed. AMOC is also discussing interim wolf location dissemination guidelines that delineate response time, recipients, and perhaps more specificity for individual wolf locations. A final decision on these draft guidelines is expected by December 2005. Meanwhile, general inquiries regarding wolf locations that might affect hunting or camping decisions should be directed to the IFT via its toll-free number 1-888-459-9653. However, it is important to note much of the available location information is for radio-collared wolves, which make up only a portion of the free-ranging population and which sometimes move quickly over large distances. Therefore, AMOC urges residents and livestock owners, as well as anyone using the BRWRA, to consider that wolves may be present anywhere at anytime. See C/R 429 on draft information guidelines.
486. **Comment:** The database should be centralized to ensure consistency. **Response:** The suggested action is recommended in the management implications section of the Technical Component, and the IFT is already implementing it.

487. **Comment:** It is unrealistic to expect a rancher or any other working person to call every day to find out where the wolves are. It is much more efficient to provide personnel to contact the ranchers and other people potentially affected by the movements of wolves and have this person located in Alpine with the rest of the IFT. **Response:** See C/R 250, 412, 429, 485, 488, and 498.
488. **Comment:** Page 87, Item 14 (Technical): Note that only ranchers and people who oppose wolf recovery are now informed of wolves locations in proximity to livestock, wolves scavenging on dead livestock and wolves depredating. People who support wolves have been cut out of the loop to receive such wolf location information. All citizens should be treated equally and if they are not then the policy that elevates the rights of certain stakeholders over others should be explicitly articulated in the review. **Response:** AMOC is now considering guidelines that would better address this issue (see also C/R 250, 412, 429, 485, and 498).
489. **Comment:** Appendix II, #2 (Technical Report): Population estimation techniques (track station surveys or genetic sampling of hair or feces) need to be developed now to ensure they are in place as the population grows beyond the point where current techniques are useful so that the new population estimation techniques can be validated early on before the IFT begins to rely more on non-telemetric methods. **Response:** The IFT uses standard population estimation techniques, such as observational data, howling surveys, and track counts based on telemetric monitoring (see C/R 132 for discussion of these methodologies). However, we are also pursuing new methods, such as genetic sampling of feces, and funding to integrate such methodologies as they become available.
490. **Comment:** Why aren't the missing Fate Unknown wolves listed in the mortalities category? **Response:** See C/R 493. Fate Unknown wolves are wolves that we no longer know to be alive, e.g. perhaps due to radiocollar failure. These wolves could still be alive (i.e. some Fate Unknown wolves have been recaptured and recollared after months of "absence"), thus they should not be listed as mortalities.
491. **Comment:** The Lupine male did not die from snakebite as listed but from combination of snakebite, management—induced intraspecific strife and asphyxiation by radio collar. It is not accurate to report the only cause that was not anthropogenic and omit the two others. It should also be noted the necropsy of the Pipestem pups succumbed to disease after their capture indicated the pivotal role of the capture in their deaths. **Response:** See C/R 140 and 146.
492. **Comment:** Non-standardized and severely limited methods were used in data collection for the report therefore the statistics are not useful since the data was not collected in a consistent, reproducible, comprehensive and uniform fashion. This applies to all field observations, population estimates, dispersal, mortality, reproduction, predations, and depredation. In the document are statements that evidence that these minimal standards were not used (Pages 37, 42, 83, 91-91, 100). **Response:** Record keeping and methods were consistent for locations (based on location database at the Alpine Field Office),

mortalities (event database at Albuquerque NM, with paper records kept with USFWS Special Agents), dispersal (based on location database), predation (based on predation database at Alpine AZ), depredations (based on paper WS reports associated with each investigation, housed at Albuquerque NM [events database]; Alpine AZ; and Phoenix AZ [depredation database]) during the review process. Visual estimates of the number of wolves and pups associated with each collared pack in the wild were composed yearly. The sum of the number of wolves and pups associated with each collared pack represented our minimum annual population and pup estimate per year. All observers were trained by qualified personnel. Sampling is generally required for large populations. The first requirement is to determine the sample unit. In the case of population estimates and reproduction, the sample unit is individual packs. During the course of this study, we attempted to place radio collars within every pack, and investigated credible reports of uncollared wolves, that were indicative of a pack being present. We used this “sample” (e.g. every pack with credible evidence of existence) as the basis for minimum reproduction and population estimates. Sampling methods for dispersal and mortality relied on individual collared wolves as an indication of the population. The sample in this case is whatever animals are captured and big enough to wear a collar. Predation and depredations were not designed to be sample, but rather summarizing the data that was collected from all kills that were found. Within scientific documents it is important to note the limitations of the data, and areas where additional or ongoing research may help to elucidate some of the hypothesis or questions. Many of the specific examples above relate to areas in the document where we note the limitations of the data or discuss specific research projects that have been initiated. Specific research will be analyzed and reported within a specific research period, and may eventually effect data collection methods, but does not represent a shift in the record keeping or methods currently. Further it is appropriate within scientific documents to discuss the limitation of specific data. The section on Page 42 (in the Draft 5-Year Review) referred to the differences between two databases housed in different offices relative to depredations. We have reconciled those two databases through referencing each individual paper record of depredations housed in different offices. That reconciled version of depredations will be presented in the final version of the 5-Year Review. See also C/R 132 and 161.

493. **Comment:** Loss of wolves to “other” causes was projected in the FEIS to be 25%. Other Losses estimated in the FEIS for 2002 was 21. When you count the 16 Fate Unknown from 2002, add to that Fate Unknown from 2003 and 2004 and uncounted for or missing pups from all 5 years, the Other Losses number is much higher. **Response:** The 25% “Other Loss” figure presented in the FEIS (Table 2-2, Page 2-8) is an annual loss estimate and adding the figures together as suggested would not be an accurate representation of this value. Furthermore, all Fate Unknown and uncollared “missing” wolves are not mortalities. Some wolves (adults and pups) have “disappeared” for months (sometimes longer than the 3-month threshold for declaring them “Fate Unknown”) only to resurface alive. Other Fate Unknown wolves have eventually been confirmed as mortalities. Regardless, the FEIS definition of Other Losses was inadequate, and for purposes of clarity and full disclosure, we have elected to present these data in the 5-Year Review on the basis of “real world” evidence and experience, without

consideration for whether interpretation might increase or decrease mortality rates. Strict comparison with the FEIS would create the erroneous perception that all Fate Unknown animals were mortalities. Accuracy and understanding may be enhanced by subdividing Fate Unknown into sub-categories (i.e. Fate Unknown – likely alive, Fate Unknown – likely dead, and Fate Unknown – no information) and analyzing them individually. One weakness with this approach is wild-born pups that lack stud book numbers; they lack such numbers because they are not collared and cannot be identified, thus their fates cannot be individually determined. Another way to address this issue may be to use the collared population as a sample of the entire population versus absolute numbers. For example, “Mortality” and “Missing” rates could be combined and compared with the FEIS estimate of 25%. This issue is readdressed in the Technical Component.

494. **Comment:** Since the 5 year review deadline, several other mortalities of adult animals have occurred. **Response:** Four wolves died in 2004 and four have died thus far in 2005 (as of October 27, 2005). However, the 5-Year Review covers only 1998-2003.
495. **Comment:** There is a significant difference between the number of wolves in the wild and the number of Mexican wolves reported in the 5-Year Review but no one knows what is out there and what exactly it is. **Response:** See C/R 132.
496. **Comment:** Catron County elected officials are getting no information on the program even when requested. **Response:** See also C/R 447. Since February 2003, AMOC has diligently tried to ensure that Catron County has appropriate access to information about AMOC activities, AMWG meetings, and adaptive management of the Reintroduction Project. We have provided many opportunities for, and have repeatedly asked, Catron County to participate as a formal or informal Cooperator. Catron County officials and/or their designated representative from Western New Mexico University attended many AMOC and AMWG meetings from February 2003 through February 2005, and both attended a few subsequent AMWG meetings in 2005. The County’s representative and a now-deceased Commissioner contributed significantly to developing the MOU under which AMOC operates, and to drafts of many SOPs that AMOC has now approved. Although Catron County has declined to become a formal Cooperator in the Project, AMOC continues to provide electronic (email) notice to several Catron County officials regarding relevant AMOC and AMWG activities, just as we do for the Lead Agencies and formal Cooperators in this Project. AMOC has held its own business meetings and AMWG public meetings in Catron County several times to facilitate participation by the County. We have also offered to meet with the County in other settings (e.g. County Commission meetings) to provide information on the Project. Nevertheless, AMOC will respond to this Comment by contacting Catron County again to ask it to specify what information it desires that it is not getting. If AMOC can legally provide the desired information, and has not already provided it, we will provide it to the extent that is available.
497. **Comment:** The AZ/NM Coalition of Counties had to include in a lawsuit a complaint over the lack of response to a Freedom of Information Act request (winning that portion

- of the suit). **Response:** The case in question involved USFWS withholding certain documents requested under FOIA, based on USFWS concerns about the Privacy Act. Parties to the lawsuit (Coalition of Arizona/New Mexico Counties v. United States Fish and Wildlife Service et al., CV-03-0508-MCA/LCS) negotiated a Modified Scheduling Order that allowed USFWS to summarize and release the information on WS Mexican wolf complaint investigation forms, without violating the Privacy Act. USFWS released the information to the Court and Plaintiffs in the case in April 2004.
498. **Comment:** Local residents get limited or no information needed to assist them to keep up with livestock protection when wolves are in the area, costing them valuable resources, time, and cattle. On the other hand, the Forest Guardians, CBD and Defenders get information on a regular basis and have even teamed up with USFWS to defend against legal action. **Response:** See C/R 250, 412, 480, 485, 487-488, and 498.
499. **Comment:** All available data on scat analysis should be made available to the public on a regular basis. Information should include collection sites and contents of all wolf scat. **Response:** The IFT does not routinely collect scat for analysis, but all available scat information is or will be summarized in IFT annual reports. If someone needs more detail than is included in such reports, please contact the IFT at 1-888-459-9653.
500. **Comment:** All information obtained in necropsy reports on Mexican wolves should be made available to the public. **Response:** Necropsy reports that are not part of an active law enforcement investigation are available to the public upon request. Please contact the IFT at 1-888-459-9653.
501. **Comment:** Why are not all wolves collared as was promised? **Response:** The agencies involved in the Reintroduction Project cannot commit to collaring all wolves released to or born in the BRWRA. From the outset of discussions regarding reintroduction, in the 1980s, we have tried make clear that it was not likely all wild wolves could be captured and collared, and that collar failure on released wolves was inevitable. Wolf pups, whether born in captivity or the wild, are too small to collar. Our standard is to collar every adult wolf that is released or re-released to the wild, all non-adult released or re-released wolves that are large enough to collar, and to have at least one wolf in each wild pack collared at all times (e.g. some packs have as many as five collars). If their size permits, all wild wolves that are captured (e.g. wild-born wolves) or recaptured (e.g. wolves with failed collars) are collared or re-collared, in accordance with SOP 21.0: Handling, Immobilizing, and Processing Live Mexican Wolves.
502. **Comment:** Regarding the technical report, current information regarding the wolf program has been gathered under artificial conditions in a highly altered and managed environment and with interactions that would not likely occur under natural conditions. Applying borrowed theorems from other wolf research (even when it may be the only choice) puts in question the accuracy and relevance when applied to Mexican wolves. The biggest problem is no habitat models exist for the Mexican wolf. No work was done on prey evaluation, impacts, or any of a host of questions before the assumptions in the

document were made. Without knowing about habitat parameters, prey utilization, and the relationship to wolf behavior, it is impossible to make valid recommendations to expand the project or to evaluate the success of the existing program. **Response:** The purpose of the 5-Year Review is to evaluate the existing Reintroduction Project, and implement or recommend modifications where appropriate. Both the evaluation and the modifications will by necessity be based on the best available information. Where information (e.g. data) is lacking, informed opinion must be relied upon. Relevant experience and knowledge from other areas and projects, especially including other wolf projects, is vitally important. We recognize, however, that any inferences drawn are conjectural, and that all hypotheses applied may well be proven “wrong” (all or in part) when tested in the real world. There is little to no certainty in most if not all aspects of wildlife management; abundant probabilities and possibilities, but virtually no certainty. Regardless, management of wolves is a necessary part of reintroduction, to ensure that wolves adequately transition from captivity to the wild and to limit impacts on livestock owners and rural residents. The Technical Component is a summary of the information gathered from 1998-2003. Evaluation of prey impacts is based on the best information available from State and Tribal wildlife agencies (see C/R 23, 202-203, 207, 396, 413, and 468). Although a peer-reviewed GIS-based wolf habitat model is just now being published (Carroll et al. *in press*), the fundamentals of wolf habitat use are well known, largely intuitive, and have been applied to this Project since the earliest stages of development. Wolves occupy the landscape at an ecological scale that is not as fine-grained as many species. Mexican wolves are wide-ranging predators that tend to occur in oak and oak-pine forest and woodland (and adjacent grasslands), at 4000 to 7000 feet (although they range higher and lower), where deer and elk provide the primary prey base. Many details and location-specific refinements can be made, but those generalities are sufficient to drive most wolf management. They are also the same criteria that were used in winnowing 15 possible reintroduction sites down to the Blue Range. Thus, we believe the 5-Year Review, and the Reintroduction Project itself in daily operations, have consistently demonstrated use of the best available methodologies and information, and that where experience or new information from other sources has suggested possible improvements, such improvements have been or are being made (see also C/R 161).

503. **Comment:** NMDA does not agree with the assumptions made in the technical report quantifying or drawing conclusions about wolf behavior in relation to distribution, ranges, feeding, dispersal, and relations with humans or livestock because the current science is insufficient to support these conclusions. It would be more appropriate to state that it is too early to evaluate success or failure since some major components of research and data are not currently available. **Response:** See C/R 161, 389, and 502. AMOC believes that it is too soon to draw definitive conclusions about long-term success or failure of the Reintroduction Project. The scientific process is one in which hypotheses are posited and tested, and recommendations are made based on the data available at the time. As new information becomes available, existing assumptions and practices are retested or revisited. It is an iterative process, and we agree that this Project is still in the early stages of that process. We believe, however, that the data currently available in most areas is adequate for evaluating progress to date, and for elucidating important

recommendations for change and improvement. We also believe that any known limitations of the data are appropriately acknowledged in the 5-Year Review.

504. **Comment:** Appendix II, #6 (Technical Report): The review indicates the IFT has considered the use of modified #3 soft-catch traps rather than the McBride #7 but has determined that McBride #7 traps caused minimal injuries and the IFT was concerned about pull-outs if switching to #3 traps. However, the report provides no data on trap injuries or the incidence of pull-outs. The IFT must provide the public with the data that were used to make this decision so scrutiny by outside experts may help determine potential impact to the long-term viability of the population. **Response:** The IFT has evaluated the effectiveness of modified soft-catch #3s and McBride #7s. Our experience indicates the McBride #7 is best suited to our Project because they cause fewer injuries and because wolves have more difficulty escaping from them, in comparison to modified soft-catch #3s. However, we do modify all McBride #7s to improve their ability to catch and hold wolves and to protect animals while they are in the trap. In any event, per an AMOC recommendation (see AMOC Recommendations Component), the WS National Wildlife Research Center is already re-evaluating these traps and others to provide recommendations to AMOC on possible further improvements in IFT capture techniques.
505. **Comment:** Appendix II, #49 (Technical): With respect to resisting purely politically motivated solutions to problems, we note that the moratorium on new releases, the restrictions on translocations, and SOP 13.0 appear to be politically motivated and do not have a solid foundation in scientific data or in the recovery and conservation of the Mexican wolf. The IFT must provide a clear explanation of the factors – political, scientific and other that led to the proposed moratorium, restrictions on translocations and SOP 13.0. **Response:** First and foremost, the obligation to explain the rationale for adaptive management decisions in the Blue Range Reintroduction Project belongs to AMOC, not the IFT. “Political motivation” seems to refer to meetings that local livestock and landowner interests in NM had with Congressman Pearce’s (NM) staff, in Glenwood and Socorro NM, on February 12, 2005 (see C/R 3). The Congressman requested that officials from USFWS attend to listen and respond to comments on the wolf program. USFWS did not request the meeting, and had no role or involvement in planning or conducting it. USFWS’s request to the Congressman’s staff that AMOC be extended an invitation to attend was granted a few days before the meetings. AMOC declined the invitation, in part because the meeting was not open to the public. However, when a standing member of Congress requests that a Federal agency, such as USFWS, attend a meeting, that agency generally does not decline the opportunity. AMOC and its Federal, State, and Tribal member agencies cannot dictate with whom a Congressman and/or his staff meet, nor does AMOC arrange or schedule private meetings between Congressional leaders and select groups of their constituents. Anyone can request a meeting with a Congressman by contacting him or his staff directly. As for the moratorium, AMOC does not believe that a 1-Year Moratorium on initial release of captive-reared wolves will appreciably slow the recovery process. The 1-Year Moratorium for 2006 will not prevent free-roaming wolves from breeding and dispersing within the BRWRA. In any wildlife reintroduction, the desire is to reach a point at which the wild population no longer needs

enhancement by release of captive individuals. Captive releases are costly in terms of time, money, and other resources. Moreover, wild-born/reared individuals are generally superior to captive-born/reared animals in several ways. The point at which a transition could or should be made to reliance on growth in the wild Blue Range Mexican wolf population has been a discussion topic for several years, dating back to development of the EIS addressing the proposed reintroduction effort. Initial AMOC discussion in 2003 revolved around biological aspects of the question. However, other factors also needed to be considered, because reintroduction is occurring across a mosaic of public and Tribal land ownership and management, with private in-holdings. Guidance offered by the Final Rule under which reintroduction is authorized must also be considered. Events early in 2005 brought these issues to the forefront. In response to the February 2005 “Pearce” meetings, the USFWS crafted a proposed moratorium for AMOC consideration. AMOC received the rough draft proposal on April 20, and discussed it at a previously-scheduled meeting on April 21. Cooperator consensus indicated the proposal, with modifications, had sufficient merit from an administrative and managerial perspective to be brought forth for public comment, discussion, and final AMOC action (i.e. approval or rejection). AMOC made various modifications, and brought the Draft Proposed Moratorium to the public for initial discussion in a previously-scheduled public meeting on April 22 (San Carlos AZ). From April 22 through July 31, 2005, the Draft Proposed Moratorium was available to the public for comment. It was also discussed in eight AMOC public meetings in June 2005, four each in AZ and NM. All comment received, whether verbal or written, was evaluated and carefully considered in reaching a final decision on this matter. The moratorium is being enacted because AMOC believes the administrative and social contexts of this reintroduction effort warrant it, and because a hiatus on new pack releases for one calendar year will not substantially impede progress toward population objectives. The moratorium covers CY2006 only, and provision is made for replacing individual wolves lost to unnatural or other causes. Further, AMOC wishes to emphasize that the Moratorium is contingent upon achieving at least six breeding pairs of Mexican wolves in the BRWRA in the 2005 end-of-year count. If that number is not achieved, or sustained into 2006, the Moratorium may be rescinded. Regardless, AMOC acknowledges that, in hindsight, the question of whether to enact a moratorium, and the justification for and composition of a moratorium, should have been melded into the pre-existing 5-Year Review, review of relevant SOPs, and development of the Project’s Annual Work Plan for 2006. Thus, the need for, and elements of, any future guidelines for new releases will be discussed as AMOC and the IFT construct Annual Work Plans for each year beyond 2006. These documents will be discussed at AMOC’s quarterly public meetings in AZ and NM, with ample opportunity for public comment to ensure full consideration of relevant concerns before decisions are made.

506. **Comment:** Page 12, Paragraph 3 (Technical): It is at least as important to calculate causes of mortality when mortality is caused by humans because that may be the factor most amenable to change. Such a calculation should be included. **Response:** We will calculate human caused and natural mortality rates to be included in the final 5-Year Review.

507. **Comment:** Page 13, Paragraph 1 (Technical): The “slight corrections...needed in the formula” should be made and the results incorporated into the final version of the review. **Response:** We used the Heisey and Fuller (1985) method that included corrections for multiple causes. However, the wording in this section of the Technical Component has been revised for clarity. See also C/R 508.
508. **Comment:** Page 13, Paragraph 2 (Technical): It is unclear why the model to identify factors in allowing wolves to survive only measures survival as opposed to reintroduction, while the previous model to measure release success measures reproduction. Release success must be presumed to influence a shorter period of time than survival success, and thus it would be more appropriate to correlate release success with the absence of mortality or removal, and survival success with breeding success. Even if the benchmark for survival success is held to be appropriate, the independent variables miss the four most pertinent factors effecting survival: 1) Animal unit months of livestock grazed or authorized within home ranges or region in which wolf travels, 2) road density within home ranger or region wolf travels, 3) land classification (i.e. within BRWRA and FAIR or outside of these jurisdictions), and 4) whether the wolf encounters livestock carcasses or not. As in the release success model, two factors of slight or no pertinence have been improperly included: year and State. **Response:** Survival models use survival rates, or “hazard rates” in the Cox proportional hazard model (Cox and Oakes 1984), as the dependent variable. Thus, rates are an appropriate dependent variable in this case, rather than a binomial variable, such as “produced in the wild” or “not.” A wide variety of habitat features could also be included in the survival model (e.g. 2-wheel drive and 4-wheel drive road densities, ungulate densities, livestock densities, vegetation characteristics [e.g. openness of the habitat], water, slope, etc.). However, a specific link between environmental variables and survival was outside the scope of this analysis because it would take an extensive period of time and effort (see discussion below). Rather, we were looking at more basic factors associated with the animal that may affect survival (e.g. age, sex). Habitat variables may be investigated in future detailed analysis. There are two different underlying questions, (1) which animals are likely to survive, and (2) what areas promote conditions for wolf survival. The first question could be addressed with existing data, but the latter question would require extensive GIS analysis and computations beyond the scope of our current databases. Both State and year were used as blocking variables to allow comparisons between animals subject to similar mortality risks. This methodology is consistent with the published literature regarding survival analysis (see Heisey and Fuller 1985).
509. **Comment:** Page 21, Paragraph s 1 and 2 (Technical): The number of breeding pairs in 2003 should be included and compared to the 10 breeding pairs that were predicted in the EIS rather than simply stating it was below the EIS prediction. **Response:** The specified paragraphs reference Figure 3a, which compares the actual breeding pairs relative to EIS predictions for 1998 through 2003. However, to ensure clarity, the text in the 5-Year Review will be revised to provide the appropriate numbers.

510. **Comment:** Page 36, Paragraph 2 (Technical): It is incorrect that there were no mortalities from intraspecific strife (Lupine Pack M480 and subsequent demise of rest of pack)  
**Response:** See C/R 140 and 146.
511. **Comment:** Page 93, Item 37 (Technical): Data is not being collected and compiled on all facets of the project (i.e. carcass scavenging and captive wolf deaths). Data is being lost by USFWS. **Response:** Information for livestock carcasses investigated by WS is written into a depredation report for each incident. All wolves that die in the Sevilleta or Ladder wolf facilities are shipped to the National Wildlife Health Center (Madison, Wisconsin) to determine the cause of death. These captive deaths are recorded in USFWS files. No data have been lost, and all relevant information regarding the wild population is being incorporated into a central IFT database.
512. **Comment:** Better record keeping through more accurate, scientific methods used to track the number of incidents in which wolves scavenge on livestock carcasses is needed. **Response:** The IFT collects information on scavenging of livestock carcasses that is useful for wolf management purposes. Neither the IFT nor ranchers can detect all livestock carcasses, whether or not they result from predation, including animals scavenged or killed by Mexican wolves. All livestock carcasses detected by the IFT in the BRWRA, or reported by ranchers, are investigated by WS for evidence of depredation (see C/R 220, 255, 274-275, 278, 291-292, and 297, and SOP 11.0: Depredation on Domestic Livestock and Pets). With permission of the livestock owner, the carcass is removed from the area (or rendered inedible) to encourage wolves to find an alternative natural prey item (see also C/R 286). See also C/R 257 and 483 regarding livestock carcass removal.
513. **Comment:** There appears to be faulty information or biased collection practices. For instance, wolf distribution assessments are not done regularly, leaving a huge gap between wolves actually on the ground and what USFWS finds and reports back to the public. The livestock depredation data is subjective and collection is biased in favor of agency needs, leading to incorrect numbers of actual losses. Agency personnel have even avoided using their own best available science in determining actual livestock losses. It is obviously not a primary focus of data collection since agency policy is to use what suits the program best and refuse any information from livestock experts. **Response:** See C/R 132, 255, 278, and 299 regarding depredation data and reports. Monthly project updates have been disseminated regularly for more than a year, consistent with SOP 3.0: Outreach. These updates include general wolf location information. If you are not receiving these via the electronic self-subscription service, and you do have Internet connectivity, please sign up for them at <http://azgfd.gov/signup>. More detailed information on wolf distribution (i.e. current known locations) is provided to affected stakeholders within 24 hours of each weekly telemetry flight (see C/R 275, 429, and 485). Livestock depredation data stems from depredation reports that are investigated by the IFT consistent with SOP 11.0: Depredation on Domestic Livestock and Pets. These reports yield a minimum estimate of the actual number of cattle lost to wolves. The reports are factual and reflect the best available science and professional training and

ethics. In other words, neither they nor IFT analyses of depredation data reflect a bias in favor of or against agency needs, or anything else. AMOC does not refuse information from livestock experts. Any such input is carefully considered, as appropriate the situation and in the context of all other available information.

514. **Comment:** On Page 28, Results, Depredation – Technical: “There is no clear trend in the data, but 2003 had one of the lowest depredation rates observed during the six years (Table 8).” The year 2003 was the worst drought year over the previous periods, which resulted in a decrease in the number of cattle on the forests. A relief in drought conditions will result in numbers building back up to permitted numbers; wolf/livestock conflicts could likely rise as well. **Response:** The quoted excerpt is from the Results section of the Technical Component. The referenced data reflect what has occurred, not what might occur in the future. The referenced passage from the Discussion section addresses the possibility that depredation removal rates might remain constant, or fluctuate with yearly environmental conditions. Drought probably did contribute indirectly to lower depredation rates in 2003, as postulated, but other factors might also have come into play. We do not have enough information yet to say whether or not drought plays a significant role in the number of cattle killed by Mexican wolves.
515. **Comment:** Page 6, Study Area, Technical Component: Needs to be corrected to acknowledge it can/has snowed in October and into May and even June. **Response:** The passage in the 5-Year Review will be revised to read, “Snow typically occurs....”
516. **Comment:** Page 6, Study Area, Technical Component: Fails to list domestic animals (cats, dogs, chickens, sheep, goats, horses, mules, cattle) as potential prey. **Response:** The 5-Year Review will be modified to ensure that appropriate distinction is made between natural prey (i.e. native species of wildlife) and domestic animals on which wolves might prey, and within those categories which species are known or likely to be primary prey items.
517. **Comment:** The descriptions of elk, deer, and cattle numbers should be corrected or updated (Page 7, Technical). To say that elk numbers have increased recently we find it difficult to consider 9 years as “recent.” As we’ve stated numerous times, deer numbers have declined sharply and to lump the much larger area that is in NM into AZ was erroneous and irresponsible. **Response:** See C/R 413, 468, and 480. In summary, to date, no detectable changes have occurred to big game populations as a result of wolf reintroduction. The number of permits issued for big game hunts have not decreased as a result of wolf presence, either.

## **S. Socioeconomic**

518. **Comment:** Statements like “the economic impacts described in the FEIS were not realized with the exception of impacts to ranchers and the ranching community,” (Page ES02) are not substantiated and are inappropriate. The document compounds the use of this anecdotal information. **Response:** As stated in Section 1.4 of the socioeconomic

analysis, in-person discussions with numerous individuals were conducted as part of this analysis. These included discussions at an initial meeting in October 2004 to which there were approximately 65 invitees, Service open house meetings in January and February 2005, phone interviews with more than 60 local stakeholders, including private parties, as well as municipal, State, and Federal agency staff. It was not possible to interview every person in the BRWRA study area, nor was it the goal of this analysis. Page ES-2 of the socioeconomic analysis now states that "This analysis finds that from 1998 to 2003, the economic impacts described in the FEIS related to livestock losses to ranchers and the ranching community were not realized, except for some impacts on ranching and, to a lesser extent, recreational use. The lack of observable impacts is likely to result, in part, from the relatively small wolf population within the BRWRA during this time period compared to the 100-wolf projections of the FEIS....In addition to impacts on ranching, impacts on recreational use were also observed. Anecdotal evidence suggests that some individuals participated in recreational activities related to the Mexican wolf. This analysis finds that impacts to hunting participation did not occur during the study period." This is a statement of findings of this analysis, based on the research conducted. The Commenters did not provide evidence that contradicts this finding. Nevertheless, after considering all public and cooperator comment during the 5-Year Review, and its own evaluations, AMOC has made recommendations regarding possible changes in the Final Rule or creation of a new Final Rule and additional assessment of social issues pertaining to such modifications (see the AMOC Recommendations Component).

519. **Comment:** There were no valuable conclusions reached in the socioeconomic report. No substantive proof was ever offered that the economic impacts of the FEIS were never reached. Most conclusions were drawn following profiles from comparatively few interviewees and the writers depended almost entirely on the IMPLAN model for the statistics they incorporated into the charts and bar graphs. The literally hundreds of campers, hikers and others who visited the area to see or hear wolves were not interviewed. **Response:** See C/R 518.
520. **Comment:** The socioeconomic report is difficult to review and analyze as it provides so little solid information and data on the actual impacts. Overall it appears that the potential negative impacts have been overstated and the potential positive impacts have been understated. There is significant focus on depredation of livestock and is clearly overstated (see Section 3, Pages 3-1 to 3-29). Even if the worst case estimates were correct the overall impact is still less than 1%. **Response:** The purpose of the socioeconomic analysis is to estimate the social and economic impacts of the Mexican wolf reintroduction effort since its inception in 1998, as part of the 5-Year Review. This information is intended to assist USFWS, cooperating agencies, and stakeholders in their evaluation of the reintroduction effort. The analysis presents the assumptions and data used to develop impact estimates. It is intended to discuss impacts to all affected economic sectors, including ranchers, hunting guides and outfitters, and Tribal entities, as well as recreation and tourism. Thus, the analysis presents a chapter on each of the above topics. The benefits of reintroduction are included in the analysis and are discussed,

- though not quantified, in Chapter 6. This section has been expanded in the revised analysis.
521. **Comment:** The socioeconomic impact component is a non-conclusive, predetermined analysis with misdirected assumptions and diverted cause and effect. The analysis is confusing and difficult to follow or understand. It contains conflicting and inaccurate statements. The stated purpose of the report was not accomplished. **Response:** See C/R 520 regarding the purpose of the socioeconomic analysis.
522. **Comment:** The socioeconomic report does not help quantify the decisions on proposed changes to the 10(j) rule. Nowhere does the report address the economic impacts that would be caused by the proposed rule changes stated in the Administrative Component. It is difficult to understand how the Recovery Team and the stakeholders could make a recommendation to the Regional Director without a comprehensive economic impact report. **Response:** See C/R 520 regarding the purpose of the socioeconomic analysis. This analysis was not intended to estimate future impacts of the reintroduction effort, although in several instances, potential future effects are discussed in general terms. Thus, it does not consider future changes to the rule that may be considered.
523. **Comment:** The socioeconomic review is deficient in not noting or even attempting to assess the impacts on local residents of the failure of the FWS to implement the 3 year review recommendations on boundaries, direct releases into NM and livestock carcasses, and how the subsequent low numbers of breeding pairs of wolves diminished the advantages local residents and others would have had in greater success of the program. **Response:** See C/R 520 regarding the purpose of the socioeconomic analysis.
524. **Comment:** Exhibit ES 1 and ES 2 give a range of 32.2 – 233 depredations and \$38,650 to \$206,290 in economic impact to ranchers. This huge deviation is beyond any acceptable standard deviation for statistical validity. **Response:** The actual number of livestock killed by Mexican wolves is not possible to determine since not all livestock carcasses are found and/or reported, and because sometimes sufficient evidence such as the livestock carcass no longer exists to determine the cause of death. Thus, the economic analysis presents a range of estimates of wolf depredation. The low estimate represents the average of the Agency records of confirmed kills (including records from USFWS, WS, and the Defenders compensation program). The medium estimate incorporates a multiplier from published literature that estimates unconfirmed kills in addition to confirmed kills. The high estimate reflects estimates of losses due to wolf depredation provided by ranchers. Due to the uncertainty in depredation numbers, the cost estimates are also uncertain. The range in both depredation and cost estimates reflect this uncertainty.
525. **Comment:** In Section 3.10 of the socioeconomic report where the writers attempt to draw conclusions and compare their findings to the FEIS, adjusting the FEIS estimates, the wolves would have killed 36 cattle from 1998 to 2004. The writers' analysis list figures from 32 to 233. Obviously the FEIS aligns well with the low-end number of kills.

- As for the high end of 233, there is not substantive proof of this outrageously high number of alleged wolf kills. That the uncompensated losses range from \$5,020 to \$172,480 depending on the estimate used is again inconclusive. The charts produced from unproven statistics being fed into the model produced charts that are meaningless when attempting to reach realistic conclusions on economic impacts. **Response:** See C/R 524.
526. **Comment:** The livestock depredation data are subjective and collection is biased in favor of agency needs. **Response:** See C/R 524.
527. **Comment:** The geographic scope of the analysis guarantees a skewed result. Neither costs nor benefits of Mexican wolf recovery are limited to the BRWRA. Costs are shared more broadly through Federal and State taxes supporting the program. While it is true that local people may feel more directly the impact of the program, it is inherently dishonest to imply that all costs are borne locally. **Response:** The five counties included in the Study Area for the economic analysis each include some portions of the BRWRA, and thus are most likely to experience the largest impacts of wolf reintroduction. Thus, the socioeconomic analysis focuses on the demographic and social characteristics of these counties when trying to understand potential impacts related to wolf reintroduction. Section 6 of the analysis discusses the potential for the broader public to hold non-use, or existence values, for Mexican wolves.
528. **Comment:** The socioeconomic analysis should not be limited to the effects of the reintroduction program on the 5 counties of the recovery area. Neither benefits nor costs of wolf reintroduction are limited to the recovery area itself. Taxpayers on both State and national levels bear some portion of the costs, while all citizens of the nation reap potential benefits of reintroduction including fully functioning ecosystems. By limiting the “tentative categories of social and economic impact” to livestock grazing, outfitters and guides, local government, tourism/conservation, and tribes, the proposed outline ignores potential beneficiaries including educational and scientific institutions, many of which while not located in the 5 county area, conduct activities in the area. Broaden the scope to consider both costs and benefits to the region, State and nation, and attempt to capture intangible or difficult to quantify impacts on ecosystem services, spiritual values, and scientific knowledge. Consider also the impacts of projected levels of development and economic activity on the wolf reintroduction as well as the impact of wolf reintroduction on the economy. **Response:** See C/R 527.
529. **Comment:** It is appropriate to assess the benefits on a broader, national basis since most wolf recovery takes place on public lands which are owned equally by all citizens of the USA. Narrowing the scope of the analysis gives unwitting credence to the specious argument that local people should have more influence on the program because they are disproportionately impacted. This is tantamount to suggesting that because decisions by the Kansas City Board of Education more directly impacted my livelihood than those of my non-teacher neighbors, I should have had more votes for School Board members than they. **Response:** The socioeconomic analysis (Sections 3 and 6, in particular) draws on

- rancher interviews, livestock depredation estimates, available published literature on existence values, and overall ecosystem health estimates from outside of the BRWRA, including data sources in Idaho and Yellowstone. To the extent that additional relevant information has become available from other areas where wolf reintroductions are occurring, this information is discussed in the final socioeconomic analysis.
530. **Comment:** Wolf presence in other areas report huge economic benefits. To assume that people are different in the Southwest just because the topography is different is to take a jaundiced perspective of the southwestern population. Survey after survey taken in the SW report overwhelmingly that a large majority of citizens favor the return of the Mexican wolf. **Response:** See C/R 521 and 529.
531. **Comment:** The NMDA believes the socioeconomic report grossly underestimates the total impacts to communities, counties, and the agriculture industry because the impacts can be very localized while the report has spread its assumptions over the entire five counties. The effect may be a 1% loss to a five-county industry, but that could be devastating if that entire loss is to one or two producers. **Response:** Section 3 of the socioeconomic analysis recognizes that "while [estimated] losses and impacts may not be significant on a regional level, wolf depredations do not affect ranchers uniformly throughout the BRWRA. Therefore, certain establishments grazing livestock in proximity to Mexican wolf ranges have experienced a disproportionate portion of the impacts. For example, by rancher estimates, of 25 ranches that reported cattle losses since 1998, nearly all reported more than one depredation event. In 2002, two ranches together reported 89% of rancher-reported cattle depredations. In 2003, a third ranch reported 25 of the 38 rancher-reported cattle depredations, or 66%". The revised analysis presents additional detail, where it is known, about the number of ranches that experienced repeated wolf depredations during the study period.
532. **Comment:** There was a severe drought during the study period and the impact it had on local livestock mortality was not fully explored in the socioeconomic report. **Response:** Sections 2 and 3 discuss the potential impacts of drought on economic activities in the BRWRA area. As stated in Section 2, "the recent drought has affect forage availability for cattle and wild game, leading to a reduction in herd numbers due to the decreased carrying capacity of the land." Section 3 observes that the recent trend in reduced AUMs on USFS lands "is likely to result from multiple factors, including declining forage conditions due to drought and competition for forage by other ungulates...." A full analysis of the interaction between increasing drought conditions and hunting, ranching, recreation, tourism or other activities within the BRWRA was not possible during the time-frame for this analysis.
533. **Comment:** The people in Catron County, the most impacted, were not surveyed for economic or social impacts. **Response:** As stated in Section 1.4 of the socioeconomic analysis, in-person discussions with many individuals were conducted as part of this analysis. These included discussions at an initial meeting in October 2004 to which there were approximately 65 invitees, Service open house meetings in January and February

2005, phone interviews with more than 60 local stakeholders, including private parties, as well as municipal, State, and Federal Agency staff. It was not possible to interview every person in the BRWRA study area, nor was it the goal of this analysis. A representative of Catron County participated in the kickoff meeting for this analysis in October 2004. This representative represented Catron County in adaptive management discussions for the Reintroduction Project from February 2003 to 2005. He also played a key role in helping AMOC design the 5-Year Review's Socioeconomic Component. Some members of the Catron County Board of Supervisors met with analysts during the course of this analysis. Several additional residents of Catron County were contacted during revisions to the draft socioeconomic analysis. Their comments have been incorporated into the final analysis.

534. **Comment:** You should figure out what the future holds for small businesses, outfitters, hunters, and ranches who stand to lose the most in just a few short years if wolves keep multiplying as fast as they are now and apply corrective measures to ensure these citizens they will still be in business down the road. **Response:** See C/R 520 and 538.
535. **Comment:** The socioeconomic evaluation should address the potential effects/conflicts of wolf recovery on the existing/future socioeconomic landscape of the region and the potential effect/conflicts of the existing/future socioeconomic landscape of the region on the success of wolf recovery efforts. Even though the USFWS goal is to overlay wolf recovery onto existing land use practices, this analysis needs to remain open to the possibility that land use priorities on public lands may need to change to accommodate wolf recovery on a meaningful level. **Response:** See C/R 520 and 522.
536. **Comment:** Each loss of a viable business is meaningful. Most public lands grazing permits are held in rural areas, so any action affecting livestock operation is likely to disproportionately affect rural areas. Adverse changes to livestock grazing negatively affect the economy and social structure of poor rural areas to a greater degree than wealthy urban areas. **Response:** See C/R 522 and 538.
537. **Comment:** The selected contractor, Industrial Economics, Inc. has demonstrated a serious lack of knowledge of western ranching practices, rural economies, and social structures on previous socioeconomic impact analyses completed for the FWS in the past. This leads us to conclude there will be serious deficiencies in the product. **Response:** The socioeconomic analysis was developed by a team that consisted of: (1) researchers at Industrial Economics, Incorporated, with experience in southwestern land use issues; (2) Dr. Aaron Harp, rural sociologist and former Director of the Policy Analysis Center for Western Public Lands at the University of Idaho, and (3) three technical advisors. The technical advisors, who are experts in agricultural and resource economics as well as rural sociology, are Dr. Allen Torell, Professor of Agricultural Economics, NM State University; Dr. Larry Van Tassell, Dept. of Agricultural Economics and Rural Sociology, University of Idaho; and Dr. David Brookshire, Professor of Economics, University of NM.

538. **Comment:** The social assessment methodology does not address either distributional effects or cumulative effects. Why is the socioeconomic impact assessment void of any analysis of the actual or potential distributional effects analyses, given Federal agency requirement to conduct basic distributional effect analysis, environmental justice and civil rights impact analysis? The ESIMW emphasis is on attitudes rather than assessing distributional effects. **Response:** Sections 3 and 6 of the socioeconomic analysis address distributional effects. Specifically, Section 3.9.2 provides an assessment of the distributional (regional) impacts of decreased livestock production on local economies in the BRWRA study area, and Section 6.3 presents estimates of distributional impacts created by increased wolf-specific Agency expenditures. In addition, Section 5 presents estimated economic impacts of Mexican wolf reintroduction on SCAT and WMAT. A small business analysis is not conducted as part of this effort. A small business analysis pursuant to the Regulatory Flexibility Act as amended by the Small Business Regulatory Enforcement Fairness Act is only required for rulemakings; therefore, such an analysis is not required for the 5-Year Review. Nonetheless, the suggestion to provide additional information regarding the numbers of small entities that may have been affected by the wolf reintroduction effort is useful. The revised socioeconomic analysis provides additional information on small entities in the BRWRA study area.
539. **Comment:** Until 1998, non-wolf losses were an accepted and budgeted-for part of doing business. The wolf is an uninvited, additional business cost, systematically imposed upon these economic entities. Additionally, the report further implies that wolves have less of an impact upon the livestock industry than other predators, diseases, nature, etc. No support for this implication has been supplied. **Response:** Section 3 of the socioeconomic analysis states that "the average death loss rate for cattle and calves in Arizona and New Mexico was 4% in 1997 (the year prior to the Mexican wolf reintroduction effort); the average death loss rate for sheep in the two states was five 5% in 1997. Death losses include deaths caused by predators (such as coyotes, dogs, mountain lions, and bobcats); digestive, respiratory, and calving problems; weather conditions; poison; theft; and unknown causes (USDA 1999). Applying these percentages to the estimated number of livestock in the BRWRA, approximately 1310 cattle and calves and six sheep died from causes other than slaughter or predation by wolves in the BRWRA in 2002, compared to 5 to 33 cattle killed by wolves. Thus, wolf predation comprises a small percentage (between 0.3 and 2.5%) of typical cattle losses experienced annually in the BRWRA.
540. **Comment:** The socioeconomic evaluation should place livestock depredation by wolves in proper perspective by comparing this source of livestock mortality to all other sources of livestock mortality. **Response:** See C/R 539.
541. **Comment:** A better analysis would look at the wolf-populated areas versus the areas that are unpopulated by wolves and seeing if the ranchers in those areas having fewer depredations overall. Are they fairing better economically than ranchers in the BRWRA? How do you know that a wolf depredation on livestock is not displacing some other possible depredation by other predators or death by starvation? **Response:** See C/R 539.

542. **Comment:** It is inappropriate to include the high estimates of depredations because the information is purely anecdotal. If included, it should be noted as anecdotal. If used, the numbers should be labeled “alleged depredations” and the numbers that are real labeled as “actual confirmed depredations.” **Response:** As discussed in C/R 524, data collected by ranchers comprises the high estimate of wolf depredations. The rancher-collected data includes descriptions of livestock impacts that occurred on 25 ranches between 1999 and 2003. Due to the uncertainty in depredation numbers, the cost estimates are also uncertain. This uncertainty is reflected in the ranges in both depredation and cost estimates.
543. **Comment:** The report explains that ranchers “estimated” that their actual losses of livestock to wolves were much higher than the documented losses but there is no explanation of how the ranchers calculated these higher estimates or of how the reviewers collected them. It is irresponsible to include the higher estimates in the review without documenting how they were obtained. **Response:** See C/R 542.
544. **Comment:** Pages 3-21 – 3-22 (Socioeconomic): The review should count how many depredations were found by ranchers and how many by agency people to more accurately assess this. **Response:** See C/R 524 and 542.
545. **Comment:** The complaints against Defenders in the socioeconomic report (Section 3.3) are unfounded. How can WS determine cause of death if no carcass is produced? When no carcass is available the kill may have been from anything. Ranchers should check their private property (livestock) on public land often enough to know when depredation has occurred and not wait until weeks later then blame missing livestock losses on wolves. **Response:** Section 3.3 of the socioeconomic analysis states that "a State or Federal wildlife agent...must determine whether the kill is confirmed or probable upon inspecting the carcass; if no body is recovered, Defenders will not compensate ranchers (C. Miller, personal communication, March 20, 2005). Ranchers are frequently unable to locate carcasses or notify wildlife agents soon enough to receive a confirmed or probable designation because of the rugged and vast terrains where livestock graze, consumption by predators and scavengers, and carcass decomposition (Oakleaf et al. 2003). In addition, some ranchers who cannot locate carcasses may not bother to report their losses. Consequently, it is likely that more ranch animal depredation has occurred than has been recorded by wildlife agencies and Defenders."
546. **Comment:** The reference in the socioeconomic report to the “positive impacts” the wolf program might have on increased vegetation suggests that livestock producers are overusing the resources in the area. **Response:** The majority of quantified economic impacts resulting from the wolf Reintroduction Project are costs to ranchers. Section 3 of the socioeconomic analysis states that "the possibility does exist, however, that the establishment of wolves in their former habitat could restore ecosystems and increase vegetation. If so, such a change would benefit ranch operations because it would increase the quality of forage available for grazing. For example, wolves reintroduced to Yellowstone influenced elk, resulting in improvements in riparian vegetation, thus

improving grass conditions and allowing trees to repopulate the area (Ripple and Beschta 2003, 2004). The increase in vegetation has benefited other species, including birds (Berger et al. 2001). It is unlikely, however, that the presence of wolves to date has reduced elk competition sufficiently to improve forage in the BRWRA due to their low numbers. Consequently, the analysis does not attempt to estimate the economic impacts of forage improvements resulting from the reintroduction of Mexican wolves." Thus, the analysis does not comment on whether livestock grazers are "overusing" resources in their area. Instead, it discusses the potential impacts that competition with elk may have on forage availability.

547. **Comment:** Grazing numbers have decreased due to wolf reintroduction causing an economic effect along with local custom and culture changes. **Response:** Sections 3 and 7 of the socioeconomic analysis discuss economic impacts and social impacts that have resulted from Mexican wolf reintroduction.
548. **Comment:** The value assumed for livestock in the socioeconomic report may be accurate for calves but is way too low for the replacement of cows. The projected revenues for a cows future possible productivity should be considered as well since it can take months or years for a cow to acclimate to a new environment and be as productive as the native cows. **Response:** As stated in Section 3.3.2 of the socioeconomic analysis, the analysis uses the WS average value per head of livestock sold across all size and weight classes for AZ and NM during the years of 1998 to 2004. These values vary from \$740 to \$840 (2004 dollar values) per head. Economic logic says that the price of a cow today reflects the discounted present value of its future earning potential. The market price of a cow, therefore, should reflect its earning potential, discounted to present dollars. Although it would be best to use the price and value per head according to the livestock class killed, data on size-class and weight was available in depredation records. Anecdotal evidence suggests that wolves prefer calves, which carry a lower market value than adult cows. Thus, the analysis would overstate the value of the cattle killed if they were all calves.
549. **Comment:** The socioeconomic report should not attribute all declines in revenue to ranchers to wolves. It has no mechanisms to factor in taxpayer contributions such as the many subsidies received by ranchers such as below market land leases. **Response:** The socioeconomic analysis develops estimates of rancher losses based on the production value of the livestock lost, as well as costs to establish compensation claims. Because estimates are not reliant on estimates of rancher profits, they are independent of income sources for ranchers.
550. **Comment:** In the socioeconomic report there is little discussion regarding the purpose of the payments made by DOW. If payments are a reimbursement for medical expenses, should they be left out? **Response:** Section 3.3 of the socioeconomic analysis states that the Defenders Bailey Wildlife Compensation Trust compensates ranchers who have lost ranch animals to Mexican wolves. The program pays 50% of the value of a probable kill, and 100% of the veterinary services to treat an injured animal or the decreased market value of the animal. Both the total economic impact of livestock losses in the BRWRA

and the net "uncompensated" losses to ranchers in the BRWRA are presented in Section 3.10 of the socioeconomic analysis. Because these payments made by Defenders to ranchers as compensation for livestock losses are not reductions in local economic activity, they are not included in the regional impacts assessment in Section 3.10.

551. **Comment:** Several questions have remained unanswered in the socioeconomic report including the effects the program will have on the sheep and dairy industries inside the recovery area. **Response:** Section 3 of the socioeconomic analysis estimates that since 1998, losses of approximately 34 to 233 cattle and 2 to 5 sheep occurred. Estimated livestock losses include all cattle, including dairy cattle, though dairy cows are not typically grazed on Federal lands of the BRWRA. As discussed in C/R 548, cattle are valued using the WS average value per head of livestock sold across all size and weight classes for AZ and NM during the years of 1998 to 2004. These values vary from \$740 to \$840 (2004\$) per head. Sheep losses are valued at \$260 to \$590. Based on BRWRA acreage relative to county acreage, the analysis estimates that approximately 120 sheep and 34,800 cattle grazed in the BRWRA in 2002. Thus, impacts on the sheep and cattle industries represent less than 1% of grazed sheep and cattle in the BRWRA study area.
552. **Comment:** Page 3-2 (Socioeconomic): The value of time spent in applying for compensation is greatly overstated since the procedures consist only of mailing off a form provided by the government. Likewise, since most depredations are located not by ranchers but by government personnel, the time described to find these has been greatly overstated. **Response:** In Section 3, the economic analysis states that a rancher may need approximately 10 hours to identify a carcass, coordinate an inspection with wildlife agents, complete the necessary paperwork, and correspond and negotiate with authorities until payment is received. This time estimate was developed by Thompson (1993).
553. **Comment:** The complaints by ranchers in Section 3.6 of the socioeconomic report are unfounded. Tagging calves is a rancher's responsibility as is the time spent applying for wolf compensation. As an American citizen, I am not compensated by the Federal government for the time I have to spend filling out my tax return. **Response:** See C/R 552.
554. **Comment:** Page 303 (Draft Socioeconomic Component): Note that footnote 45 [= 47 in Final Socioeconomic Component] appears to be documentation of trespass grazing and this should be incorporated into the effects on ranchers. Note that in the case of the Gavilan Pack on the Wild Bunch Allotment (Apache NF) and wolf M166, trespass grazing was involved in habituating wolves to livestock. These and any other instances should be enumerated and analyzed fully in the context of the socioeconomic effect of wolves. **Response:** In the paragraph and associated footnotes, the socioeconomic analysis points out that 1) the number of permitted head is likely to be larger than the number of authorized head in any given year; 2) the FEIS estimates of grazed cattle in the BRWRA may have been based on permitted head estimates; 3) the estimates in this analysis of the number of horses and sheep (based on acreage) yields a larger number of these animals than was authorized by USFS in 2002. Thus, the paragraph does not provide evidence of

trespass livestock. These points have been clarified in the final analysis. As stated in C/R 520, the purpose of the socioeconomic analysis is to estimate the social and economic impacts of the Mexican wolf reintroduction effort since its inception in 1998, not to assess whether impacts could have been avoided.

555. **Comment:** Need to check figures for cattle grazed in the BRWRA. Cattle numbers in the report are higher than they really are. Allotments have been reduced and people are going out of business due to forced reductions, predators, and drought – many of those since wolf reintroduction began. **Response:** According to the WS 2002 Census of Agriculture, there are 122,500 cattle, at least 300 sheep and lambs, and 9,000 horses and ponies in Apache and Greenlee counties AZ, and Catron, Grant, and Sierra counties NM. Sheep and lamb data underestimate total numbers because Apache and Catron counties do not report sheep inventories in order to protect the proprietary information of the few establishments that raise sheep (USDA 2002). Section 3 of the socioeconomic analysis estimates, based on acreage, that 34,800 cattle, (6900 in AZ and 27,800 in NM), at least 120 sheep (80 in AZ and 40 in NM), and 1600 horses (800 in AZ and 800 in NM) grazed in the BRWRA in 2002. In order to estimate the number of livestock in the BRWRA, this analysis multiplies the total county livestock figures by the percentage of the county that falls within the BRWRA. Because this estimate is based on relative acreage, it could overestimate or underestimate the actual number of cattle grazed in the BRWRA. The analysis also presents data suggesting that the overall number of authorized AUMs in Gila National Forest has declined fairly steadily since 1986.
556. **Comment:** If the analysts had truly looked at the makeup of the livestock industry within the BRWRA they would have realized that cattle grazing on USFS lands is restricted by permits and allotment grazing plans. Moving livestock to an area out of reach of wolves is not an option. **Response:** The estimate of economic impacts on ranchers in the socioeconomic analysis does not assume livestock were moved, or could be moved, to decrease depredation. Section 3.3 offers a description of how depredation rates may vary based on livestock's proximity to wolf home ranges. The draft report then offers anecdotal evidence that one rancher's depredation rate decreased when she moved cattle to another pasture.
557. **Comment:** The study "Paying for tolerance: rural citizen's attitudes toward wolf depredation and compensation" was performed in Wisconsin and its applicability to the Mexican wolf program is slight. The ratio of average cattle killed, as used in the development of the medium estimate is low and biased against livestock owners. **Response:** The Naughton-Treves et al. (2003) study referenced in the Comment was used in the socioeconomic analysis in conjunction with two other studies to develop one estimate of the number of depredations that may have occurred in the BRWRA area during the study period. This estimate was then placed in context with two other estimates of the number of depredations: the low estimate was developed from Agency records of depredations; the high estimate was developed from rancher-reported losses collected by the local ranching community.

558. **Comment:** The analysis repeatedly states that there are impacts to ranchers, but dismisses the impacts without any further analysis. With the numerous impacts that have been identified but not quantified, it is reasonable to believe that these impacts could be significant. **Response:** Where possible, the socioeconomic analysis attempted to quantify total impacts to ranchers. Section 3 quantifies impacts resulting from depredation to livestock and rancher time spent applying for compensation. Other impacts that are identified include physiological impacts on livestock, a need to alter use of forage, a need for additional ranch labor (such as to provide increased herd supervision), and additional expenditures on items such as guard dogs, fuel, and wear on ranch vehicles. However, for these activities, estimates were not available that describe the frequency and scale of these impacts.
559. **Comment:** The analysis should have estimated the total impacts to ranches that were compensated for livestock losses. The greatest economic impact of the wolf reintroduction is that these disproportionately affected ranches will reach a threshold and go out of business. Additionally common sense would indicate a decreased value of the ranch itself due to the depredation of a predator. **Response:** Evidence was not presented in conversations with stakeholders or public comments that ranches closed or property values were reduced due to wolf reintroduction since 1998. Research suggests that the market value of ranches in NM has increased in real dollars between 1996 and 2002, though the value of permit ranches remained relatively stable over that time period (Torell et al. 2005; Torell et al. 2004). This slowed appreciation has been attributed to uncertainty about future grazing access on public lands and the many controversies associated with public land grazing, including issues such as grazing fees, NEPA compliance, and ESA compliance. Wolf reintroduction under the ESA might have been one of many factors, along with conservation activities for other endangered species, as well as other controversies and uncertainties, that contributed to the difference in appreciation rates for deeded land versus public land ranches in the BRWRA. See C/R 558.
560. **Comment:** There is an inherent bias in selecting information for inclusion into the socioeconomic report. The “costs” extend some 94 pages while the benefits are glossed over in 15 pages mostly spent justifying why the benefits could not be enumerated. **Response:** The socioeconomic analysis is intended to discuss impacts to all affected economic sectors, including impacts on ranching, hunting guides and outfitters, Tribal entities, as well as recreation and tourism. The statement of work for the socioeconomic analysis states that “to the extent that they are readily identifiable and measurable, non-market effects should also be considered in this analysis.” Thus, the analysis presents a chapter on each of the above topics. To the extent possible, the benefits of reintroduction are included in the analysis.
561. **Comment:** The DEA features only a very superficial discussion of the benefits of reintroduction. In many cases, this lack of quantitative assessment of benefits is unjustified. As a result of this mismatch, the study is seriously biased toward

emphasizing the negative impacts of reintroduction at the expense of the positive impacts. **Response:** See C/R 560.

562. **Comment:** The DEA mentions that reintroduction of Mexican wolves "could result in... increased educational opportunities." (Page 6-14 in the Draft Socioeconomic Component) This statement suggests that such impacts are hypothetical while a number of educational activities have focused on Mexican wolves. Examples: June 2002--Tempe high school field ecology conducted an interpretive program in Middle Mountain area, July 2004--field program organized for Tempe high school field biology class, July 2003--Mexican Wolf Workshop for educators at Sipe Wildlife Area, as well as 160 community outreach activities conducted by the Mexican Wolf Reintroduction Program. **Response:** Section 6 of the socioeconomic analysis presents available anecdotal information on attempts to establish for-profit wolf tourism, movement of people into the local area due to wolf presence, and increased educational opportunities that have resulted from Mexican wolf reintroduction. However, it was not possible to interview every person who may have visited the area on behalf of Mexican wolves, nor was it the goal of this analysis. Instead, a sample was interviewed. Additional information provided during the comment period was incorporated into the final socioeconomic analysis.
563. **Comment:** The DEA fails to mention several media productions that have featured the Mexican Wolf Recovery Program and the Reintroduction Project, including Bluestem Pack (BBC 2003), Jeff Corwin Experience (2003; Animal Planet), Wildlife Survivors: El Lobo: The Song of the Wolf (March 2004). **Response:** See C/R 562.
564. **Comment:** The DEA fails to mention the sales of some reintroduction-related products, such as Wolf-friendly beef products. This constitutes an economic benefit attributable to reintroduction. **Response:** See C/R 562.
565. **Comment:** On Page 6-9, the socioeconomic report indicates that there was one private citizen that reported leading two hikes for people who wanted to see wolves and goes on to say this appears to be the only case of wolf-related tourism occurring to date in the BRWRA. This is incorrect. The Arizona Heritage Alliance has had several wolf related trips including two where visitors stayed at the Hannagan Meadow Lodge and another where visitors stayed at the Holder Ranch. In addition to that, the Sierra Club has led at least 8 trips to the area where members stayed, dined, bought supplies, etc. at local businesses. There are likely many more examples of this. **Response:** See C/R 562.
566. **Comment:** The statement "USFS at Apache-Sitgreaves and Gila NF could not locate any applications to date for outfitter/guides proposing to run trips to track or otherwise observe wolves as of March 2005. One private citizen reports she led 2 hiking trips for several people who wished to see wolves. However this appears to be the only case of wolf-related tourism occurring to date in the BRWRA" is misleading. At least one outfitter/guide in the Gila NF acknowledges the fact that wolves are an attraction for some clients by including them in his advertising. One difficulty they have encountered is a resistance on the part of USFS officials to any mention of wolves in their permit

- applications and possibly their advertising. Second, I was the private citizen referred to in the quote and did indeed lead two all-women camping trips in AZ for a total contribution of at least 40 tourist business days and many enterprises benefited from business they otherwise would not have enjoyed. In addition, my husband and I have made a total of at least 30 trips to the recovery entirely due to the presence of wolves. I maintain a list of at least 20 businesses that benefited. I strongly doubt we are the only individuals making visits to the BRWRA primarily due to the presence of wolves. **Response:** See C/R 562.
567. **Comment:** Pages 6-9 and 7-9 (Socioeconomic): Wolf tourism is far greater than noted. I have run across several groups of people who traveled to this area for the purpose of seeing or hearing wolves. **Response:** See C/R 562.
568. **Comment:** Data sources were inadequate for the socioeconomic review. Pro-wolf people in the recovery region were only contacted very late in the review process and their opinions and impacts not fully incorporated into the results. This lateness resulted in several pro-wolf people who could not be reached at a first phone call but who called back later, not being contacted at all. **Response:** See C/R 562.
569. **Comment:** The socioeconomic analysis only looked at the ranching interest. What about local businesses that benefit from tourism resulting from people that come here to look for wolves to enrich their recreational experience? This is occurring – just check with Alpine businesses. **Response:** See C/R 562.
570. **Comment:** Wolves as an asset to the economy as a draw for tourism needs to be evaluated. **Response:** See C/R 562.
571. **Comment:** If anecdotal information is used for livestock depredations then why not use it relative to people's increased visits to the area and tourism? For example some of us visit Alpine once a month specifically for wolf related reasons. While this is anecdotal, it could be documented with credit card or other such receipts. **Response:** See C/R 562.
572. **Comment:** Section 6 of the socioeconomic report regarding tourism is very understated and to report that few people specifically make wolf-related trips to the area is untrue. It is also a poor assumption that many of the people who attend wolf meetings and spend money locally would have preferred to spend their time elsewhere – the vast majority are pro-wolf and travel voluntarily to attend meetings on wolf-related issues. **Response:** Section 6 of the socioeconomic analysis discusses tourism trends in the BRWRA area during the study period. Regarding expenditures related to wolf meetings, the analysis states that "because the ratio of those bearing opportunity costs to those who feel they benefit from meetings is unknown, this analysis does not include time, or expenditures associated with this time, to be a benefit or cost of the program."
573. **Comment:** On Page 6-14 the report indicates there is no evidence to suggest the Mexican wolves have altered or improved the ecosystem health of the BRWRA. We question whether that is something that was really documented in this analysis. **Response:** This

statement has been rephrased in the final socioeconomic analysis to state: "No data reviewed during the course of this study suggest that Mexican wolves have altered or improved ecosystem health in the BRWRA to date."

574. **Comment:** If hard data do not exist regarding the benefits of wolves to the recovery area and the nation as a whole they might at least examine more carefully the question of whether information on such benefits as wolf tourism dollars in the Yellowstone area and in North Carolina and Minnesota may not have some application in the Southwest. **Response:** See C/R 530.
575. **Comment:** Because the wolf program is new, there is no historic data to reflect the future economic potential for wolf-related tourism. Data from areas where wolf reintroduction has been in existence longer should be considered and analyzed. **Response:** See C/R 530.
576. **Comment:** Section ES-7 (Tourism/Conservation), the BRWRA is too isolated to receive the eco-tourism benefits that Yellowstone receives and almost assuredly will never equal our present elk hunting industry revenues. **Response:** See C/R 530.
577. **Comment:** Section 7 of the socioeconomic report is based on a biased profile of people and does not present a true picture. **Response:** As stated in Section 1.4 of the socioeconomic analysis, in-person discussions with numerous individuals were conducted as part of this analysis. These included discussions at an initial meeting in October 2004 to which there were approximately 65 invitees, Service open house meetings in January and February 2005, phone interviews with more than 60 local stakeholders, including private parties, as well as municipal, State, and Federal Agency staff. It was not possible to interview every person in the BRWRA study area, nor was it the goal of this analysis.
578. **Comment:** Pages 1-3 and 6-13 and 7-10-7-11 (Socioeconomic): The 1995 League of Women Voters poll on attitudes toward wolf recovery (52% support, 37% opposition in rural southwestern NM) should be incorporated into this analysis. **Response:** The revised socioeconomic analysis presents a discussion of this study.
579. **Comment:** In the Socioeconomic Component, it is not clear that "general public attitudes and perceptions regarding wolf reintroduction" encompasses people's WTP for wolf reintroduction, the measure commonly used to quantify the monetary value of non-market benefits. The IEc document is silent on whether or not non-market benefits will be included in the economic analysis even though the FWS document "Mexican Wolf Reintroduction Project 5-Year Review" states that they will be. The socioeconomic analysis fails to clearly commit to the inclusion of non-market benefits in the economic analysis. **Response:** The socioeconomic analysis (Sections 3 and 6, in particular) draws on rancher interviews, livestock depredation estimates, overall ecosystem health estimates, and available published literature on existence value from outside of the BRWRA, including data sources in Idaho and Yellowstone. It also summarizes published literature that estimate non-use values for wolves, primarily using contingent valuation

techniques (this section has been expanded in the revised socioeconomic analysis). It should be noted that while contingent valuation provides a useful method for estimating a full range of values (i.e. use value, non-use value, existence value, etc.), the reliability and validity of this method has been the subject of much controversy. In addition to concerns regarding the contingent valuation method, transfer of existing estimated values of wolf reintroduction to the Southwest would require consideration of all of the key elements for a successful transfer (e.g. adjustment for biases, treatments of outliers and protest bids, internal consistency, etc.), including whether populations sampled, reintroduction programs, and reintroduction areas are similar enough to conduct a reliable transfer. Because of the unique character of studied sites, this analysis does not attempt a benefits transfer using results of this analysis.

580. **Comment:** Non-market benefits, including positive impacts on the ecosystem, educational, and scientific opportunities should be included. **Response:** See C/R 579.
581. **Comment:** The DEA cites studies that question the validity of the CV method, but does not cite studies that show that appropriately designed CV studies can, and have been shown to, generate valid estimates of individuals' WTP. **Response:** See C/R 579.
582. **Comment:** The DEA states that the published economics literature shows that non-use values generate measurable welfare benefits (Pages 6-12). It would be more pertinent to state that studies have shown that non-use benefits are particularly important with respect to wolves. **Response:** See C/R 579.
583. **Comment:** The authors ignore all but one of the studies that examine WTP for wolf conservation. Furthermore, they argue that the study is not suitable for benefit transfer without conducting a substantive test of that argument on the basis of quantifiable criteria. The DEA only considers one of the two geographic regions for which the one study they cite generated WTP estimates while ignoring the central Idaho region. **Response:** See C/R 579.
584. **Comment:** The Socioeconomic Component states that non-market efforts will be considered in the analysis but only where these are “readily identifiable and measurable.” How are these to be defined? In the 1994 EIS of reintroducing wolves to Yellowstone and Central Idaho, non-market benefits were “identified” and “measured” (or rather, estimated). However if the level of effort required to develop those benefit estimates is beyond that which will be investigated in the Mexican wolf 5-Year Review, and if the USFWS/Industrial Economics, Inc. decides not to employ the economic methodologies available (i.e. benefits transfer) that would allow utilizing appropriately adjusted Yellowstone and Idaho benefit estimates in the Mexican wolf socioeconomic analysis, then non-market benefits may be termed not “readily identifiable and measurable” and could end up being excluded from the analysis. This is a real concern. Given that several existing studies have demonstrated the very real and substantial non-market benefits associated with reintroducing wolves, omission on these benefits from the analysis is

likely to substantially underestimated total benefits of Mexican wolf reintroduction. **Response:** See C/R 579.

585. **Comment:** In Exhibit 6-9, the "Net" row in the table is incorrect because it does not weight WTP for supporters and opponents by their respective shares of total respondents. If this had been done, the "net" mean WTP would increase. **Response:** The Commenter correctly points out that the draft socioeconomic analysis did not explain that the net value should be weighted. To provide a more clear discussion, the "net" row has been removed in the final socioeconomic analysis.
586. **Comment:** The DEA does not include the expenditures of NGOs and private individuals associated with the more than 100 meetings that have taken place to date on Mexican wolf reintroduction. It does not include the expenditures of non-Agency personnel stationed in the area for projects related to Mexican wolf reintroduction. Defenders had a total of 15 people located in the area working on wolf reintroduction. It does not include the expenditures associated with pro-active measures taken by DOW. These measures amount to a total of about \$18,100 between April 2002 and June 2005. **Response:** Section 6.3 of the socioeconomic analysis details known expenditures by Agencies involved in Mexican wolf reintroduction, and presents a regional impact analysis that describes the impacts of these expenditures on the local BRWRA economies. In addition, the analysis presents an estimate of the number of meetings held with people not employed by government agencies. The section focused on Agency expenditures because these figures are expected to comprise the bulk of expenditures for the area. The information provided in the Comment will be taken into account in the final report.
587. **Comment:** The cow/calf ratio is not addressed and the report does not assess the damage to elk and deer numbers that affect hunter opportunity. **Response:** Section 4 of the socioeconomic analysis presents available data on the estimated number of elk and deer in the BRWRA, as well as the number of hunters, hunter permit days, and the number of permits granted in the BRWRA area during the study period. The cow/calf ratio is one of the variables used to predict future population growth potential of a population. Though the analysis does not explicitly discuss the cow-calf ratio, it is incorporated into the agency estimates of population size during this time period.
588. **Comment:** Small businesses (gas stations, grocery stores, gun shops, cafes, motels, etc.) should be included as a category in the Socioeconomic Component as they stand to lose big time if elk hunting is substantially curtailed due to future wolf predation. **Response:** Section 3.9.2 of the socioeconomic analysis provides an assessment of the distributional (regional) impacts of decreased livestock production on local economies in the BRWRA study area. In addition, Section 6.3 presents estimates of distributional impacts created by increased Agency expenditures. Finally, Section 5 presents estimated economic impacts of Mexican wolf reintroduction on FAIR and SCAR. A small business analysis pursuant to the Regulatory Flexibility Act as amended by the Small Business Regulatory Enforcement Fairness Act is only required for rulemakings; therefore, such an analysis is not required for this 5-Year Review. Nonetheless, the suggestion to provide some

additional information regarding the numbers of small entities that may have been affected by this rulemaking is useful. The revised socioeconomic analysis provides some additional information on small entities in the BRWRA study area.

589. **Comment:** The socioeconomic study should compare the BRWRA to what is happening in Idaho, Montana, and Wyoming where wolves are numbering over 800 now and wiping out elk herds and taking the hunting industry along with it. **Response:** See C/R 530.
590. **Comment:** Why is there no discussion of the wildlife and outfitter impacts in Wyoming and Montana and the possible impacts within the BRWRA? **Response:** See C/R 589.
591. **Comment:** The socioeconomic report is severely faulty by not including the segment of the population most impacted by the wolves – the non-ranching residents of the Blue River – our feelings of safety of ourselves and our animals, our changed lifestyles and our diminished property values. **Response:** Section 7 of the socioeconomic analysis evaluates the social impacts associated with the Mexican wolf reintroduction in the BRWRA from 1998 to 2003. Social impacts are defined as “the consequences to human populations of any public or private actions that alter the ways in which people live, work, play, relate to one another, organize to meet their needs and generally cope as members of society. The term also includes cultural impacts involving changes to the norms, values, and beliefs that guide and rationalize their cognition of themselves and their society” (Interorganizational Committee 2003: 231). The analysis states that significant social change within the BRWRA is occurring independent of wolf recovery efforts, and that general social forces such as these can overwhelm social impacts from a specific policy such as wolf reintroduction. It is therefore difficult to separate the direct social effects exclusively caused by the wolf program from broader social trends. The analysis acknowledges that individuals may be impacted by wolf reintroduction. However, the analysis observes that negative impacts experienced at the individual and family levels have been difficult to see in the larger context of the community or at an institutional level.
592. **Comment:** Section ES-2 (Demographics) of the socioeconomic report does not fully recognize the real problem for the lower population growth rates, lower median incomes, higher poverty rates and unemployment. The main reason for this is a direct result of government and radical environmental groups foisting the endangered species programs on the rural residents. The socioeconomic report should not deny this and should admit that the Mexican wolf program is designed to get rid of the consumptive user on Federally managed lands. **Response:** See C/R 591.
593. **Comment:** The socioeconomic report seems to gloss over the mental stress to family stability due to losing their livestock to wolves. It also does not address the concerns by families in their reports of wolf attacks within their own private property nor their fears, concerns, and behavior changes such as constantly watching their children due to the proximity of wolves to their homes and children. **Response:** Section 7 of the socioeconomic analysis presents impacts associated with risk, health, and safety as well

as fears and aspirations resulting from Mexican wolf reintroduction that were identified to date. The identified primary social impacts of wolves on ranchers include, but are not limited to, uncertainty about herd losses and accompanying economic losses, trade-offs of time required to manage for wolves rather than work on other ranch needs, feelings of diminution and anger over the management of compensation programs, and, for Tribes, loss of culturally important calves and the associated cultural impacts. In addition, the presence of wolves influences the management logistics of the ranch and the allocation of family and hired labor. Ranchers also pointed to the personal and family stress involved with trying to run a ranch with wolves present. Finally, the available compensation program for economic losses appears to add to the social impacts due to the rules in place and the manner in which those rules are implemented. Ranchers feel that the compensation programs insufficiently mitigate the social impacts of wolf reintroduction on ranchers because they only pay for a portion of actual losses (see Section 3 for a more complete description of compensation programs).

594. **Comment:** Regarding the socioeconomic study, nowhere is the impact on non-ranching property owners who are greatly impacted by the wolves. An example is loss in property value. Many potential buyers would be discouraged by the threats to their family and domestic animals. We were told that wolf tourism would improve our property values yet there is no such tourism. **Response:** See C/R 593.
595. **Comment:** The loss of ranches, as small businesses, resulting in the loss of the investment-backed expectation, and the total loss of cattle, would result in irreversible and irreparable damage to their business, family, and communities. There would also be significant adverse effects to their lifestyles and social position. **Response:** See C/R 593.
596. **Comment:** The Mexican wolf reintroduction program has been ineffective in protecting native wolf species and the consequences to Catron County have been devastating. **Response:** The purpose of the socioeconomic analysis is to estimate the social and economic impacts of the Mexican wolf reintroduction effort since its inception in 1998 as part of the 5-Year Review. Impacts to Catron County are discussed in relevant sections regarding ranching, hunting, tourism/conservation, and social impacts.
597. **Comment:** It is stated that "with only Deming and Silver City, New Mexico, having populations greater than 10,000" (Pages 2-3), however, Deming is not within the 5 county analysis. **Response:** In the report, Deming is referred to as a community "in proximity to the BRWRA" and not as lying within the five county study area. Information on Deming was included to provide additional context for the analysis.
598. **Comment:** Exhibit 2-9 includes Deming, Lordsburg, and Magdalena NM although these towns are not within the study area. **Response:** In order to provide context for some of the demographic findings, the report also contains information about communities such as Deming, Lordsburg, and Magdalena that are in proximity to the BRWRA.

599. **Comment:** There are inaccuracies in the reported median household incomes of the counties. US Census data indicate Apache County did not have the lowest median income of the included counties. **Response:** The report uses median household income data drawn from the 1990 and the 2000 US Census reports while the numbers provided in the Comment are model-based estimates from the Small Area Income and Poverty Estimates. When the 90% confidence interval for the estimates is taken into consideration, Apache County and Catron County exhibit no statistically significant difference in income.
600. **Comment:** The demographic section does not adequately display the depth and scope of poverty, ethnic breakdown, overall minority population, and woman-owned business. **Response:** Section 2 of the socioeconomic analysis presents general demographic data on the five counties in the BRWRA study area. Section 5 of the analysis presents demographic information specific to WMAT and SCAT, where available. As shown, unemployment and poverty rates on Tribal Reservations exceed those of surrounding counties. In addition, Tribes have a unique relationship with the Federal government, and, though they are sovereign nations, often are more entangled with Federal processes than non-Federal entities. Nonetheless, rural residents and Tribal residents share a burden of a lack of diversity of alternative employment possibilities, which is discussed in Section 7 of the analysis.
601. **Comment:** A statement that "fewer employment opportunities exist to substitute for losses in income" for Tribal members (Page 5-2) does not indicate what major differences exist between rural Tribal areas and other rural areas that leads to fewer employment opportunities on one and not the other. **Response:** See C/R 600.
602. **Comment:** The report states that "higher poverty and unemployment rates, are most likely not related to wolf reintroduction." How can the FWS make this pre-determined conclusion without conducting a proper cumulative effects analysis? **Response:** As stated in Section 7 of the socioeconomic analysis, many ongoing social forces affect the communities in the BRWRA. For example, some communities are experiencing growth, while others face population contraction. Other factors such as significant and persistent poverty and demographic shifts (e.g. an aging population) have social impacts (see Section 2 for more information on population and economic trends in the study area). For example, Exhibit 2-8 indicates that Catron County experienced a decline in child rearing age classes (age 20 to 39 years) between 1990 and 2000. At the same time, the post-child age classes (age 40+ years) increased significantly. This demographic shift reduced school enrollments. Although different arguments exist as to why this change occurred, a common theme is that the loss of the timber industry changed the employment mix of Catron County. Young families found it difficult to make a living and chose to leave. At the same time, retirees and others without children have moved into the county. The cumulative impact over time is declining school enrollments. Further, numerous public land policies changed in the years leading up to and since the reintroduction of the wolves in the BRWRA. Thus, significant social change within the BRWRA is occurring independent of wolf recovery efforts. General social forces such as these can overwhelm social impacts from a specific policy such as wolf reintroduction. Thus, the analysis

concludes that it is therefore difficult to separate the direct social effects exclusively caused by the wolf program from broader social trends.

603. **Comment:** The NMDA's understanding was that the economic contractor was to review the wolf program, rather than justifying its existence through comparisons of government expenditures by the program and potential impacts from ecotourism. How much did each individual agency spend on the program in the counties discussed, and what sector did expenditures occur? **Response:** The purpose of the socioeconomic analysis is described in response to C/R 520. Agency expenditures are not typically tracked on a county basis. The revised socioeconomic analysis provides data by agency to better understand expenditures by type.
604. **Comment:** Regarding agency spending in local areas, once the wolf Recovery Program is completed, these short-term economic benefits will cease. These dollars are primarily tax dollars and are not new dollars or natural resource dollars which have a much bigger effect on the economy. **Response:** As stated in C/R 520, the purpose of the socioeconomic analysis is to estimate the social and economic impacts of the Mexican wolf reintroduction effort since its inception in 1998, as part of the 5-Year Review. The economic analysis quantifies only those expenditures that occurred during the study period. The analysis does not forecast economic impacts and does not speculate on future wolf recovery expenditures.
605. **Comment:** Pages 6-2 and 6-10 (Socioeconomic): Many agency expenditures would never have been made in the absence of wolves. **Response:** See C/R 604.
606. **Comment:** An accurate disclosure of wolf associated costs to stakeholders – costs to livestock grazers and permit holders from wolf depredation, cost to guides and outfitters, costs to recreation activities and cost to hunting/fishing activities. **Response:** Section 3 of the socioeconomic analysis presents estimates of economic impacts resulting from wolf depredation to livestock since the wolf program began. Sections 4 and 5 of the analysis present an analysis of economic impacts that occurred to the outfitting/guide industry and to recreational visitation to the BRWRA area.
607. **Comment:** An accurate accounting of wolf base prey and forecast of recovery. Relate this to the economic cost of wolf recovery versus loss or revenue from livestock sales and outdoor sports related activities. **Response:** As stated above, the socioeconomic analysis was not intended to estimate future impacts of the wolf reintroduction effort, although in several instances, potential future effects are discussed in general terms. Section 3 places the estimated economic impacts on the ranching industry in context. An analysis of that scale is beyond the scope of the 5-Year Review.
608. **Comment:** The socioeconomic report should have discussed the effect that the presence of abandoned carcasses left for wolves to feed on has on the number of wolf depredations. **Response:** Wolf depredations on livestock as a function of carcasses left out on the range is discussed in the Administrative Component. See also C/R 257.

609. **Comment:** How will the socioeconomics report assess aspects of non-residents for which the presence of wolves in the wild is part of their enjoyment of the forest resource when they come to visit? Will just the public input from the 4 public meetings be used for this? Can my views and others who don't live here be made part of this analysis? How can we participate? **Response:** The Socioeconomic Component presents available information regarding local versus non-local visitation to Apache-Sitgreaves and Gila National Forests. However, there is a paucity of visitation data to the area that would allow meaningful evaluation of trends in forest visitation since wolves were reintroduced. Ideally, visitation information would be obtained through a series of surveys and interviews with recreational users at the project site. Given resource and time constraints, however, designing and conducting a study to collect primary data from the project site was beyond the scope of the socioeconomic analysis.
610. **Comment:** "Mexican wolves killed between 0.1 cattle per wolf per year under the low depredation estimate to 1.1 cattle per wolf per year under the high depredation estimate" (Pages 3-13) These figures refer to a theoretical wolf and not to actual wolves in the wild. Since wolves are removed from the wild for having killed more than 1.1 cattle per wolf and since few wolves hunt alone, the figures are patently meaningless. **Response:** The estimates cited by the Commenter refer to wolves on the ground and simply represent the average number of livestock killed/year/wolf under the low and high depredation scenarios presented in the Socioeconomic Component.
611. **Comment:** Regarding Section 3.5 of the Socioeconomic report on the need to alter forage, ranchers should explore alternative grazing schemes such as calving once a year to allow for protecting calves of a vulnerable size, preventing grazing near wolf rendezvous sites, and developing more pastures with more fencing to provide for more frequent rotation of pastures. These are more work for the rancher but progressive ranchers that apply such methods reap greater revenue than those that allow for calf birthing year round and only move livestock on a seasonal basis. **Response:** As stated in C/R 520, the purpose of the socioeconomic analysis was not to analyze potential changes that could be made to improve wolf-human interactions. Instead, the socioeconomic analysis estimates the social and economic impacts of the Mexican wolf reintroduction effort since its inception in 1998. It is worth noting, however, that a number of ranchers in the BRWRA employ some of these tools in their grazing operations. However, not all ranch operations are equally suited for implementing these kinds of actions, either logistically or economically. Specifically, ranching on public lands in the BRWRA is a USFS permitted activity. The USFS permit specifies authorized activities (e.g. number of AUMs, pasture rotation schedule, improvement maintenance responsibility), but also provides a certain amount of flexibility in how the operation is run to allow for maximum efficiency and to respond to unforeseen events. Suffice to say that no two public land ranches (which generally include a variable mix of public and private base property) are identical. Decisions on day-to-day ranch management on public lands are primarily the prerogative of the individual rancher (within the constraints of his or her permit).

### Oral Public Comment and AMOC Responses

AMOC held a series of eight public meetings in AZ and NM in June 2005, to provide a forum for the public to ask questions and/or provide oral comment on AMOC's draft 5-Year Review, a proposed 1-Year Moratorium on wolf releases, and five other draft SOPs. Speakers were encouraged to provide comment specific to these three subjects, but were allowed to address any aspect of wolf recovery or the Reintroduction Project during the time allotted to each speaker. Attendees were reminded many times that only written comment would be considered on the three subjects, but that oral comment had value in terms of helping AMOC understand and interpret the range of issues. Copious notes on all oral comment were taken, and AMOC subsequently decided, in the interest of improving communication and dialogue. Below, we summarize the comment at the eight meetings, and respond to each question or concern.

**Important Note:** These Responses were written in September-October 2005, before AMOC finished developing responses to written comment on the 5-Year Review (see previous section), in November-December. New information and fresh perspectives gained during the 5-Year Review process might have resulted in disparities between these Responses and those in the previous section. If such disparities exist, please defer to the information in the previous section.

#### **A. General**

1. **Comment:** What is the purpose of the eight public meetings? **Response:** The primary purpose is to provide opportunities for the public to learn about and comment on the draft 5-Year Review of the Blue Range Mexican Wolf Reintroduction Project, draft SOPs that guide the Project, and a Proposed 1-Year Moratorium on New Releases of Captive Wolves. AMOC members will consider the oral comment from these meetings, but formal public comment had to be submitted in writing, as indicated before and during the meetings (i.e. oral testimony at the meetings was not formally recorded).
2. **Comment:** Information being put out by the Mexican wolf reintroduction program is flawed because it doesn't show the negative side. **Response:** Information about the Reintroduction Project is disseminated through monthly updates, educational presentations, annual reports, multiple agency websites, and 3- and 5-Year Reviews of the Project. The Project endeavors to present a balanced picture regarding Mexican wolf reintroduction. In particular, the Project's outreach slide show has been significantly modified in response to comment about its substance and tone.
3. **Comment:** Why were the closed-door meetings with Congressman Pearce allowed to be held? **Response:** The referenced meetings were not AMOC or USFWS meetings. Neither AMOC nor USFWS requested the meetings, nor did they have any role in planning or conducting them. The meetings were convened and attended by staff of Congressman Pearce (NM) and local (NM) livestock and landowner interests. They were held in Glenwood and Socorro NM, on February 12, 2005. The Congressman asked that USFWS officials attend to listen and respond to comments on the Mexican Wolf Recovery Program and the BRWRA Reintroduction Project. USFWS asked the Congressman's

staff if AMOC could be extended an invitation, which was granted a few days before the meetings. AMOC, as a body, declined the invitation, in part because the meetings were not open to the public. However, when a standing member of Congress asks a Federal agency such as USFWS to attend a meeting, that agency generally does not decline the invitation.

4. **Comment:** When can environmentalists have their own private meeting with Congressman Pearce? **Response:** Neither AMOC nor its individual agency members can dictate with whom a Congressman and/or his staff meet. Any group or individual can request a meeting with a Congressman by contacting him or his staff directly.
5. **Comment:** Why didn't the high level USFWS officials that attended the Congressman Pearce sponsored meetings attend these meetings? **Response:** USFWS and AMOC received such a request from several environmental organizations shortly before the eight public meetings held in AZ and NM in June 2005. However, the focus of those meetings (i.e. soliciting comments on the draft 5-Year Review, the proposed 1-Year Moratorium, and five draft SOPs) had been established months in advance by AMOC. Although individuals providing oral comment were allowed to make any statement they desired in the time allotted to them, the emphasis and intent of the meetings was to gather input for AMOC on the three stated topics of discussion, and not a general question/answer session between higher level USFWS employees and the public on the pros and cons of wolf reintroduction/recovery. Therefore, it was predetermined that AMOC was the appropriate level of officials to be in attendance at the meetings.
6. **Comment:** Why weren't Pearce's staffers at the June AMOC meetings? **Response:** AMOC has no control over what meetings Congressman Pearce's staff members choose to attend. However, one of his staff members did attend the Truth or Consequences meeting (June 17, 2005).
7. **Comment:** Should ranchers and landholders have more say in what happens on the land than people not resident to the area? **Response:** Approximately 96% of the BRWRA is public land, including the Gila National Forest in NM and the Apache National Forest in AZ. National Forests are managed by USFS under tenets of the Multiple Use-Sustained Yield Act of 1960 and the National Forest Management Act of 1976. Overlaying these basic statutory regulations are other laws, including the Clean Water Act, Clean Air Act, Wilderness Act, and the ESA; these statutes are further interpreted by litigation and case law, which in turn refine and define how public lands are managed. Livestock grazing is a recognized, legitimate use of much of the public lands in the BRWRA as per the Federal Land Policy and Management Act of 1976 [Section 402(a)], the Forest and Rangeland Renewable Resources Planning Act of 1974, as amended by the National Forest Management Act of 1976, the NEPA of 1969, and the Rescission Act of 1995 (see also the Responses to Comments 0.2 and 0.4). In addition to livestock grazing on the BRWRA, in-holdings of private ownership are scattered throughout the area. Some of these private in-holdings are considered base property by USFS in terms of issuing grazing permits and have been owned by the same ranching families for generations.

Other in-holdings have been sold and/or subdivided and have changed hands multiple times over the years. Regardless of the history of ownership, however, private lands carry inherent property rights that must be considered whenever a management decision is proposed and implemented. Ranchers and property owners in and adjacent to the BRWRA are arguably the most immediately and directly affected when a nuisance or problem wolf issue arises. The Final Rule recognizes that the concerns of ranchers, landholders, and Tribes must be considered in order to effect reintroduction and eventual recovery of the Mexican wolf.

8. **Comment:** It is not wolves that are interlopers in the wild, it is ranchers. **Response:** Livestock grazing on National Forest lands is authorized and regulated through a series of Federal statutes (see Response to Comment A.7). Livestock grazing is a traditional use of the National Forest and part of the USFS's multiple-use mandates. It is also a traditional and culturally important use of Tribal lands.
9. **Comment:** Are the views of pro-wolf advocates heard at the same level as minority ranchers? **Response:** Views of all constituents are heard and considered by AMOC. Comment that helps the managing agencies implement a successful wolf program that coexists with other land uses has more weight, regardless of its origin. The views of various constituents are not weighted by counting votes or by the strength with which the views are expressed. Therefore, views of pro-wolf, anti-wolf, and neutral parties have equal potential to influence the Reintroduction Project if they provide constructive input that leads to a more successful wolf project.
10. **Comment:** Reintroduction of wolves can be an economic boon to an area and ranchers could charge for eco-tourism. **Response:** We agree that wolf-related eco-tourism has the potential to provide economic benefit to the area. At this time, there is no way to predict to what extent such businesses will develop or how much revenue would be generated.
11. **Comment:** How much time has been lost on the ground (in terms of proactively moving forward with reintroduction and eventual recovery) in terms of what's been going on (in terms of all the meetings, litigation, political delays), and can we really afford to immerse ourselves in the process? **Response:** The Project is about two years behind schedule in terms of on-the-ground accomplishment, due to reasons stated by the commenter and various other issues (e.g. especially the 13 unlawful wolf kills in 2003). Despite lack of closure on several key recommendations, and unresolved discussion points in the 3-Year Review of 2001, adaptive management activities were restored in 2003 and have been well underway in 2004 and 2005. The Reintroduction Project has continued to move forward despite these setbacks.
12. **Comment:** Were there any special invitations to the Alpine Meeting? **Response:** No. The meeting announcement was disseminated via the Reintroduction Project's standard outlet, a self-subscription electronic newsletter, entitled *Endangered Species Updates*, available at <http://azgfd.gov/signup>. This newsletter reaches more than 5,000 individuals, agencies, and organizations that have an interest and/or stake in Mexican wolf

reintroduction. In addition to the newsletter, information on the meetings was provided to all newspapers and other media outlets in AZ and NM.

13. **Comment:** Why wasn't the Alpine meeting posted earlier? **Response:** The reference is to AMOC's failure to post a copy of the meeting announcement in one or more locations in the Alpine area. The failure was due to human error. It was an oversight, not an intentional act. AMOC and the IFT will do everything possible to ensure this does not happen again.
14. **Comment:** The \$12,000,000 spent to date on wolf recovery does not fully represent the cost of the wolf program. **Response:** State, Tribal and Federal agencies involved in wolf recovery/reintroduction have made concerted efforts to account for all of the monies spent on reintroduction and recovery of the Mexican wolf. The \$12,000,000 figure includes estimated expenditures on Mexican wolf recovery/reintroduction by all the cooperating agencies from 1977-2005. With the exception of depredation claims, cost to the ranching community is difficult to assess. However, the Socioeconomic Component attempts to further identify and characterize those costs.
15. **Comment:** Economic impacts have occurred to local communities due to the cumulative impacts of restrictions on use of natural resources (e.g. logging, grazing). Federal money would be better spent attempting to offset the loss of teachers and school facilities due to declining enrollment, instead of putting money into wolf reintroduction. **Response:** The purpose of the ESA is to conserve Federally-listed species; USFWS is the agency charged with administering this law. USFWS is not able to "choose" whether Federal money allocated by Congress for species conservation is spent on recovering the Mexican wolf versus funding education or other endeavors that local communities might believe are more important than wolf recovery. Securing funds for loss of teachers and school facilities is primarily the responsibility of the states, counties, and local school districts. More Federal money could be spent on education if the President's Budget Request and the Congressional Budget Resolution had those provisions. This comment is best addressed by how Congress develops tax and spending legislation. The Federal budget process is guided by a set of specific procedures laid out in the Congressional Budget Act of 1974. The centerpiece of the Budget Act is the requirement that Congress develop an annual "budget resolution" setting overarching limits on spending and on tax cuts. These limits apply to legislation developed by individual congressional committees as well as to any amendments offered to such legislation on the House or Senate floor. The budget process involves the President's Budget Request, it lays out the President's relative priorities for Federal programs — how much he believes should be spent on defense, agriculture, education, health, etc. The President's budget is very specific, and lists a recommended funding level for individual Federal programs or small groups of programs called "budget accounts." The budget typically sketches out fiscal policy and budget priorities not only for the coming year but for the next five years or more; it is accompanied by historical tables that set out past budget figures. The President's Budget Request tells Congress what the President believes overall Federal fiscal policy should be, as established by three main components: (1) how much money the Federal

government should devote to public purposes; (2) how much it should take in as tax revenues; and (3) how much of a deficit (or surplus) the Federal government should run. All Federal agencies submit their budget request through the President's Budget Request.

## **B. Legal Issues**

1. **Comment:** How can the wolf program be done away with entirely? **Response:** The Reintroduction Project is conducted under a nonessential experimental population rule (i.e. the Final Rule) pursuant to the ESA. The Final Rule and the associated FEIS were outcomes of several years of public process subsequent to a court settlement between USFWS and various environmental groups. The Project thus reflects a legal mandate under the ESA and a judicial mandate from the court settlement. In order to eliminate the wolf program, changes to the relevant laws, regulations, or a court decision related to the Final Rule would be required. It would also be possible to modify the program by amending the rule authorizing the reintroduction. Also, if sufficient progress is not made under the nonessential experimental population designation, the courts might be asked to force USFWS to conduct the reintroduction under the full protection of the ESA, which would result in far less flexibility for management of wolves on the ground.
2. **Comment:** What (ESA, courts, etc.) is driving wolf recovery? **Response:** The purpose of the ESA is to conserve threatened and endangered species and their ecosystems. Specifically, it requires development of recovery plans for all listed species, except in the rare case that such a plan would not further conservation of the species. These plans guide efforts to alleviate threats to the species such that they can be removed from the list of threatened and endangered species. A recovery plan for the Mexican wolf was approved in 1982; this document, in addition to the Final Rule, recommendations from the 3-Year Review, various court settlements, interagency processes, and public input has provided the framework for recovery efforts in the Southwest. A revised recovery planning process was initiated in 2003, but is currently on hold due to litigation. Ultimately, a new recovery plan will provide direction for wolf recovery in the Southwest. See also Response to Comment B.1.
3. **Comment:** There should be an independent General Accountability Office (GAO) investigation of the Mexican wolf recovery program. **Response:** The GAO's Office of Special Investigations (OSI) is responsible for conducting congressional oversight investigations of alleged violations of Federal criminal law and for integrating such oversight within GAO's audits and evaluations. GAO investigations are generally initiated at the request of Congress. OSI's powers and authorities derive from those vested in the Office of the Comptroller General, as codified in Title 31, U.S. Code, namely: 1) Investigate all matters related to the receipt, disbursement, and use of public money; 2) make an investigation ordered by either house of the Congress or a congressional committee with jurisdiction over revenue, appropriations, or expenditures; 3) give a congressional committee with jurisdiction over revenue, appropriations, or expenditures the help and information it requests.

4. **Comment:** What happens to the Mexican wolf after they're determined to be recovered? **Response:** Once wolves in AZ and NM are recovered, as indicated by delisting under the ESA, they will be managed by the appropriate State and Tribal wildlife agencies. Depending upon State and Tribal laws and regulations, wolves could be managed similarly to bears, mountain lions, bobcats, foxes, or any other animal. In order to achieve delisting, it is likely that the States and Tribes will have to first develop wolf management plans to provide guidance and assurances that state management will be able to maintain "recovered" wolf populations, and not to reduce populations to the extent that protection under the ESA would once again be necessary. Within the frameworks of the management plans, states would have the ability to offer the appropriate protections for Mexican wolves, and to determine if and under what circumstances take of Mexican wolves could occur.
5. **Comment:** Removal of livestock or their remains from private or public lands, except by the lawful owner, is illegal. **Response:** Arizona Revised Statute 3-1302 is entitled "[T]aking animal without consent of owner; classification," and states "[A] person who knowingly takes from a range, ranch, farm, corral, yard or stable any livestock and uses it without the consent of the owner or the person having the animal lawfully in charge is guilty of a class 2 misdemeanor." The comparable NM statute is not as explicit as the Arizona Revised Statute; however, it does address some of the same issues. New Mexico Statute 77-9-45 is entitled "[O]wnership; possession; transportation; seizure; disposition of livestock; refusal of certificate," and states "[I]f any duly authorized inspector should find any livestock or carcasses in the possession of any person, firm or corporation for use, sale or transporting by any means, and said person, firm or corporation in charge of said livestock or carcasses is not in possession of a bill of sale, duly acknowledged, or cannot furnish other satisfactory proof of lawful ownership or said inspector has good reason to believe that said livestock or carcasses, are stolen, said inspector shall refuse to issue a certificate authorizing the transportation of said livestock, or carcasses, and shall seize and take possession of same."

### **C. 10(j) Final Rule**

1. **Comment:** Can wolves be designated "fair game" when they wander out of the BRWRA? **Response:** No. The gray wolf species (which includes the Mexican wolf subspecies) in North America south of Canada was listed as endangered on March 9, 1978, except in Minnesota where it was listed as threatened (43 FR 9607). On January 12, 1998, a Final Rule under Section 10(j) of the ESA of 1973, as amended, was published in the Federal Register (63 FR 1752). The Final Rule was entitled "Establishment of a Nonessential Experimental Population of the Mexican Gray Wolf in Arizona and New Mexico." It established the boundaries of the MWEPA (MWEPA) as the portion of AZ lying north of Interstate highway 10 and south of Interstate highway 40; the portion of NM lying north of Interstate highway 10 in the west, north of the NM-Texas boundary in the east, and south of Interstate Highway 40; and the portion of Texas lying north of United States Highway 62/180 and south of the Texas-NM boundary. The BRWRA is contained entirely within the MWEPA, and includes the entire Apache

National Forest in east-central AZ, and the entire Gila National Forest in west-central NM. The final rule also sets forth management directions and provides for limited allowable legal take of wolves in the wild within the MWEPA, such as in defense of human life. If a Mexican wolf wanders outside the BRWRA, but remains within the MWEPA, then the rule states that no person, agency, or organization may “take” any wolf in the wild within the MWEPA, except as provided in the rule. “Take” as defined by the ESA and the Final Rule means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.

2. **Comment:** The reintroduction program should buy a ranch and fence it in and use that as wolf recovery. **Response:** Under the ESA of 1973, as amended, the term “endangered species” means any species which is in danger of extinction throughout all or a significant portion of its range. The gray wolf (*Canis lupus*) is native to most of North America north of Mexico City, with the exception of the southeastern United States, which was historically occupied by the red wolf (*Canis rufus*). The Mexican (gray) wolf subspecies historically occurred over much of NM, AZ, Texas, and northern Mexico. Recent literature on the genetics of gray wolves (e.g. Leonard et al. 2005) supports a larger geographic distribution of Mexican wolves (or zone of intergradation with other gray wolf subspecies) than previously described (USFWS 1996). Recovery of a listed species under the ESA generally connotes healthy populations of wild, naturally-interacting and dispersing, free-ranging animals that are no longer in danger of extinction throughout all or a significant portion of their range. Furthermore, the average home range size of Mexican wolf packs is  $182 \pm 24$  mi<sup>2</sup> (see Technical Component). Consequently, artificial containment of Mexican wolves to a fenced ranch, no matter how large, is not feasible and would not meet the legal standard of recovery of the species under the ESA. For example, wolves maintained at pre-release facilities such as Sevilleta and Ladder Ranch do not count toward recovery while in captivity.
3. **Comment:** Wolves need to be released outside their current boundaries. **Response:** A revision to the Final Rule would be required to allow the release of Mexican wolves outside their current boundaries. The need to amend the final rule will be assessed in the 5-Year Review. Furthermore, Mexico has an ongoing recovery program in which the future release of Mexican wolves into the wild may play a part.
4. **Comment:** Only the Mexican Wolf Recovery Team can ask for a rule change, and now the Recovery Team has been disbanded. **Response:** This is incorrect. Ultimate responsibility for pursuing a rule change lies with the USFWS Southwest Regional Director. Also, see Responses to Comments C.3 and M.1.
5. **Comment:** Wolves need to be kept in an enclosed area within the wilderness. **Response:** See responses to C.2 and F.24.
6. **Comment:** Wolves need to be reintroduced into large roadless areas such as the Gila Wilderness Area. **Response:** The Gila Wilderness Area is part of the “secondary recovery zone” of the BRWRA. The Final Rule defines “secondary recovery zone” as an

area adjacent to a primary recovery zone (i.e. a portion of the Apache National Forest that lies in Greenlee County, Arizona) in which USFWS allows released wolves to disperse, where wolves captured in the wild for authorized management purposes may be translocated and released, and where managers will actively support recovery of the reintroduced population. While wolves have been translocated into the Gila Wilderness Area on several occasions, captive-reared Mexican wolves (i.e. without wild experience) may not be directly reintroduced into the Gila Wilderness Area as per the final rule. The release of captive-reared wolves into the Gila Wilderness Area would require a revision to the final rule and will be explored in the 5-Year Review. Under the existing rule, captive-reared and “experienced” wolves can be released into wilderness areas in AZ, such as the Blue Range Wilderness.

7. **Comment:** Why were Mexican wolves reintroduced into an area with so many ranchers when there are better places in NM for reintroduction than the BRWRA? **Response:** Most of the public lands in NM administered by the USFS and BLM contain grazing allotments. Identification of potential areas for releasing Mexican wolves began in 1986 when the USFWS, pursuant to the 1982 Mexican Wolf Recovery Plan, solicited candidate areas from the wildlife management agencies of NM, AZ, and Texas. Four areas in AZ and one area in NM were settled on as likely candidates. USFWS and states compared and ranked the five candidates based on the following attributes: area of vegetation associated with typical Mexican wolf habitat, wild ungulate density, water availability, livestock density, potential effects on other threatened or endangered species, human population density, and road density (USFWS 1993). Overall, WSMR ranked highest, followed closely by the BRWRA. Further analysis of WSMR, however, suggested that it lacked enough suitable area to sustain an independent, viable population of Mexican wolves. Based on this analysis, USFWS determined reintroduction in the BRWRA was biologically and environmentally preferable and had the greatest potential for successfully achieving the current recovery objective for Mexican wolves.
8. **Comment:** Why aren't wolves allowed to establish territories outside the Blue Range Wolf Recovery Area? **Response:** See Response to Comment C.3.
9. **Comment:** Why aren't direct releases of wolves into the Gila National Forest allowed? **Response:** The Final Rule only authorizes direct release of captive-reared, “naive” wolves in the primary recovery zone of the BRWRA. Wolves that are either born or have gained experience in the wild can be translocated into the Gila National Forest. Also, see response to C.6.
10. **Comment:** Can the experimental/nonessential designation for Mexican wolves in the BRWRA be changed to endangered? **Response:** Yes, at least in theory. The ESA allows such changes. The process would involve a formal rule change and a corresponding NEPA analysis (in terms of preparing an EA, a supplemental EIS, or a new EIS). The process would take several years to accomplish. Project cooperators, however, believe that changing the status of wolves in the BRWRA from “nonessential experimental” to

fully endangered would severely restrict management flexibility. Thus, none of the AMOC Lead Agencies support such an action; some would aggressively oppose it.

11. **Comment:** Can ranchers be issued non-lethal ammunition such as rubber bullets like they do in the northern Rockies? **Response:** Some ranchers and local landowners, upon their request, have been provided cracker shells for hazing wolves around livestock or occupied dwellings. In terms of use of non-lethal ammunition such as rubber bullets, the final rule states that throughout the MWEPA (see also Response to Comment C1), which includes the BRWRA, you may harass wolves that are within 500 yards of people, buildings, facilities, pets, livestock, or other domestic animals in an opportunistic, noninjurious manner at any time – provided that wolves cannot be purposely attracted, tracked, searched out, or chased and then harassed. The Final Rule defines “harass” as an intentional or negligent act or omission which creates the likelihood of injury to the wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to breeding, feeding, or sheltering. The only type of harassment permitted as per the Final Rule is that of “opportunistic, noninjurious harassment.” Opportunistic, noninjurious harassment is defined as when the wolf presents itself (for example, the wolf travels onto and is observed on private land or near livestock). Any harassment must not cause bodily injury or death to the wolf. The basic intent of harassment permitted by the Final Rule is to scare wolves away from the immediate area. It is limited to approaching wolves and discharging firearms or other projectile launching devices in proximity to but not in the direction of wolves, throwing objects in the general direction of but not at wolves, or making any loud noise in proximity to wolves.
12. **Comment:** Why are wolves being shot by ranchers? **Response:** To date, not one rancher has been identified as legally or illegally having shot (or otherwise killed) a Mexican wolf. Twenty-five wolves have been illegally shot since inception of the Reintroduction Project. Most of these incidents remain under investigation. The Final Rule provides a provision that states livestock owners or their agents may be issued a permit on public lands, under the ESA, to take wolves actually engaged in the act of killing, wounding, or biting livestock. Before such a permit is issued, several conditions must be met, including: a) livestock must be legally present on the grazing allotment; b) six or more breeding pairs of Mexican wolves must be present in the BRWRA; c) previous loss or injury of livestock on the grazing allotment, caused by wolves, must be documented by USFWS or its authorized agent; and d) agency efforts to resolve the problem must be completed. At this time (September 2005), all four of these conditions have not been met in any one incident, and no permits have been issued. Furthermore, on private and Tribal Trust Lands anywhere within the MWEPA, the Final Rule states “livestock owners or their agents may take (including kill or injure) any wolf actually ‘engaged in the act of killing, wounding, or biting livestock;’ provided that evidence of livestock freshly wounded or killed by wolves is present; and further provided that the take is reported to the Service’s Mexican Wolf Recovery Coordinator or a designated representative of the Service within 24 hours.”

13. **Comment:** Are there any plans to use M-44s in wolf country? **Response:** No. Use of M-44s has been discontinued in occupied Mexican wolf range, as set forth by the Final Rule.
14. **Comment:** What happens if a hunting dog tangles with a wolf (in terms of defending the animal, compensation)? **Response:** There are no provisions under the Final Rule for defense of a hunting dog that results in “take” (see the definition of take in comment C.1) of a Mexican wolf. The hunting dog owner is limited to “opportunistic, noninjurious harassment” in defense of the dog (see also Response to Comment C.11). In regard to compensation, the Defenders program does not compensate for the loss or injury of hunting dogs to wolves.
15. **Comment:** What are the pros and cons of expanding the 10(j) area? **Response:** Expansion of the current MWEPA 10(j) area would require amendment of the Final Rule. If this were to occur, Mexican wolves could more freely disperse outside the current boundaries of the BRWRA (i.e. Apache and Gila National Forests in AZ and NM). This would relax or eliminate the requirement to remove wolves not causing a management problem outside the BRWRA and return them to the recovery area or captivity. This would allow the IFT to concentrate on more immediate management issues (e.g. outreach, nuisance and problem animals, tracking and monitoring, research and investigations) versus expending valuable resources (i.e. time, capital, manpower) on wolves that have established themselves outside the current recovery area boundary, but are not otherwise causing problems. This should lessen, but not eliminate some of the conflicts with livestock owners and landholders. Although the average number of conflicts/livestock owner or landholder should lessen, total conflicts may increase by spreading wolf reintroduction over a larger area. Removing or expanding the 10(j) boundary restriction would likely facilitate achieving the six or more breeding pairs benchmark more quickly, which in turn could liberalize management actions that could be taken in controlling livestock depredations, such as issuing take permits to landowners. Greater freedom to disperse should lessen management-induced disruption of social bonds to packs and promote territory establishment and stability within and between packs, which in turn should lessen the number of human/wolf conflicts. Allowing wolves to more freely disperse across the landscape into suitable habitat, versus attempting to artificially confine their movements to a recovery area with regulatory (versus biological) boundaries, should speed the goals of reintroduction and ultimately delisting, which will then allow management of the Mexican wolf to be turned over to the states. Expansion of the MWEPA to the southern borders of NM and AZ would also ensure management flexibility if wolves were to come northward from Mexico, where reintroduction is now underway. However, expansion of the MWEPA would also require greater management effort overall, which would only be possible with an expanded IFT, which would require additional funding.
16. **Comment:** Will the 10(j) area be expanded? **Response:** See Response to Comment C.3.
17. **Comment:** Why are wolves allowed to roam outside the wilderness where they can get in conflict with humans and domestic animals? **Response:** The BRWRA is much larger

than the Gila Wilderness Area, and includes all the Apache National Forest in AZ and NM, and the Gila National Forest in NM. See also the responses to comments C.1 and C.7.

#### **D. 3-Year Review**

1. **Comment:** Why haven't the recommendations in the Paquet report (i.e. 3-Year Review) been followed? **Response:** The 3-Year Review, including the Paquet Report, was conducted in 2001. However, the review did not culminate with the desired cooperator (USFWS, AGFD, NMDGF, and WMAT) discussion of the recommendations, thus final actions were not taken in a formal or organized, collaborative sense. Several things occurred that contributed to the lack of closure: (1) in July 2001, Congressman Skeen (NM), via language in the next-year's budget allocation, directed USFWS to conduct an independent review of the 3-Year Review before taking action on its recommendations; (2) the USFWS Region 2 Director position (covering AZ-NM as well as OK and TX) was vacated in 2001, and Acting Directors were hesitant to make decisions in the absence of a new Director; and (3) lack of cooperator and public consensus about the fairness and validity of the overall 3-Year Review process was evident. As a result of these issues, in August 2002 USFWS asked the State Wildlife Agencies in AZ and NM to conduct the independent review Congressman Skeen requested, and which was due in September 2002. The states conducted the review, and in September 2002 provided a suite of recommendations to the new USFWS Region 2 Director. From September 2002 through October 2003, the states, Service, and eventually other State, Federal, Tribal, and local government cooperators developed a cooperative adaptive management program to provide guidance to the Reintroduction Project, and restore and enhance opportunities for public involvement in the effort. A commitment to conduct a 5-Year Review of the Project, with substantial public involvement, during which the Paquet Report and all other aspects of the 3-Year Review would be considered, was fundamental to this renewed commitment to collaboration. Although the Paquet Report is often referenced as "pure science," there are administrative, legal, and social contexts for much of it, especially some of the key recommendations. Those are the aspects that were perhaps most clearly not fully vetted and resolved in 2001, and that must be done before final recommendations can be offered and decisions made. This vetting will be accomplished through the 5-Year Review.

#### **E. 5-Year Review**

##### Socioeconomic Section

1. **Comment:** How were people contacted to be interviewed for the Socioeconomic portion of the 5-Year Review? **Response:** As stated in Section 1.4 of the Socioeconomic analysis, in-person discussions with many individuals were conducted by Industrial Economics, Incorporated as part of this analysis. These included discussions at an initial meeting in October 2004 to which there were approximately 65 invitees, USFWS open house meetings in January and February 2005, as well as phone interviews with more

than 60 local stakeholders, including private parties and non-government organizations, as well as municipal, state, and Federal agency staff. The unstructured, personal interviews with individuals living in BRWRA communities form the basis of the Socioeconomic analysis. A "snowball sample" was used to identify interview subjects (Salganik and Heckathorn 2004). This approach is used when a random or probability sample is not a viable option and evaluating small groups or social networks is required. Interviewees were asked to offer referrals to other individuals living in the BRWRA, who were then contacted. Attendees of the initial meeting and public open houses as well as stakeholders identified by agency personnel as being active in support of or in opposition to the reintroduction program were contacted first. Some individuals were also approached in public areas in BRWRA communities to discuss impacts of the wolf and their communities, and asked to suggest additional local contacts. Data collection efforts also resulted in discussions with personnel at numerous local and state agencies. Approximately 60% of interviews were conducted in NM and 40% in AZ.

2. **Comment:** The Company (Industrial Economics) writing the Socioeconomic section of the 5-Year Review of the Mexican Wolf Reintroduction is from back East and doesn't know how things are done in the West. **Response:** The Socioeconomic analysis was developed by a team consisting of: (1) researchers at Industrial Economics, Incorporated, with experience in Southwestern land use issues; (2) Dr. Aaron Harp, rural sociologist and former Director of the Policy Analysis Center for Western Public Lands at the University of Idaho; and (3) three technical advisors. The technical advisors, who are experts in agricultural and resource economics as well as rural sociology, are Dr. Allen Torell, Professor of Agricultural Economics, New Mexico State University; Dr. Larry Van Tassell, Professor of Agricultural Economics and Rural Sociology, University of Idaho; and Dr. David Brookshire, Professor of Economics, University of New Mexico.
3. **Comment:** The Company contracted to do the Socioeconomic Review (Industrial Economics) did the reviews for the Mexican spotted owl and the Southwestern willow flycatcher and they were flawed. **Response:** As stated in Response E.2, the Socioeconomic analysis was developed by a team that included Industrial Economics, Dr. Aaron Harp, Dr. Allen Torell, Dr. Larry Van Tassell, and Dr. David Brookshire. Both the Mexican spotted owl and southwestern willow flycatcher analyses were written by Industrial Economics, and were also peer reviewed by relevant southwestern experts in their fields.
4. **Comment:** The draft Socioeconomic Review places the cost of a cow at \$640.00; cows are worth more than this. **Response:** As stated on page 3-15 of the draft Socioeconomic analysis, "[F]or cattle and calves killed by wolves, the analysis applies the average value per head in AZ and NM in the year that a loss occurred (ranging from \$740.00 to \$840.00 in 2004 dollars) to estimated losses in order to calculate the value of animals killed by wolves." Livestock values represent values reported in the USDA Meat Animals Production, Disposition, and Income: Summary, National Agricultural Statistics Service (1998-2004). This value represents the average value of livestock sold across all size and weight classes for each state.

5. **Comment:** Why doesn't the 5-Year Review discuss the impacts on human health from wolves? **Response:** Section 7 of the Socioeconomic analysis presents impacts associated with risk, health, and safety, as well as fears and aspirations resulting from Mexican wolf reintroduction to date. No attacks or injuries on humans have been recorded, nor have there been any disease transmission or other public health issues attributed to Mexican wolves. The 5-Year Review does discuss human-wolf interactions within the reintroduction area.
6. **Comment:** The contractors for the Socioeconomic Review did not talk to a representative sample of ranchers or the chambers of commerce from the affected counties. **Response:** See response to E.1.
7. **Comment:** Can counties provide local information on the Socioeconomic Review for local verification of facts and figures used? **Response:** Yes. The draft Socioeconomic analysis will be revised to reflect new data provided by affected Counties and other comments on the analysis.
8. **Comment:** Can the extreme stress-related illnesses suffered by residents along the Blue as a consequence of the Aspen Pack be addressed in the 5-Year Review? **Response:** As stated in the Response to Comment E.5, Section 7 of the Socioeconomic analysis presents impacts associated with risk, health, and safety as well as fears and aspirations resulting from Mexican wolf reintroduction identified to date. Revisions will be made to the analysis to incorporate data submitted during the comment period.
9. **Comment:** Are local communities in and adjacent to the BRWRA interested in looking into wolf reintroduction from an ecotourism view? **Response:** The Socioeconomic Component focuses on impacts that have occurred since the Project's inception in 1998. During the development of the Socioeconomic analysis, several interviewees provided anecdotal accounts related to eco-tourism interest, including a conference in 2003, hosted by the Southwest Environmental Center in Alpine, AZ, on "potential ideas related to reintroduced wolves" that reported 40 attendees, a discussion of a potential future museum on local ecology that would feature wolves, and a new charter school that would use wolves to study ecology. Wolf-related eco-tourism in the BRWRA may have occurred, but did not result in economic benefits of a magnitude that could be detected through the Socioeconomic analysis.
10. **Comment:** Are the negative effects to future generations of livestock producers being accounted for in the recovery program? **Response:** The purpose of the Socioeconomic analysis is to estimate the social and economic impacts of the Mexican wolf reintroduction program since its inception in 1998, as part of the 5-Year Review. This analysis was not intended to estimate future impacts of wolf reintroduction, although in several instances potential future effects are discussed in general terms. The analysis provides a range of estimates of past depredation of livestock, estimates a value of the losses, and presents regional economic impacts induced by uncompensated losses. The

information in this analysis is intended to assist cooperating agencies and stakeholders in their evaluation of the Reintroduction Project.

11. **Comment:** Thousands of jobs are being outsourced or eliminated annually, why can't ranchers adapt? **Response:** Multiple use of public land, including ranching and livestock grazing, is a legal and legitimate activity on Federally managed USFS lands that make up the BRWRA. The role of the USFWS and other cooperating agencies, and the Reintroduction Project is to uphold and administer the ESA by working to recover the Mexican wolf, not to make judgments regarding the appropriateness of grazing or other multiple-use activities on public lands.
12. **Comment:** Why aren't ranchers and other affected parties part of the subcommittee for the 5-Year Review, especially the Socioeconomic assessment? **Response:** No subcommittee groups of any kind were formed as part of the 5-Year Review. The Socioeconomic Review was performed by an independent contractor, Industrial Economics (and their local subcontractors), which in turn interviewed numerous stakeholders and affected parties as part of the review process. However, ranchers and other affected parties were represented by the AMOC and AMWG cooperating agencies that participated in (or had the opportunity to participate in) structuring and implementing the review. Unfortunately, most local governments opted not to take full, if any, advantage of those direct participation opportunities.
13. **Comment:** How is the 5-Year Review addressing the economic impacts of recovery on rural communities? **Response:** The study area for the Socioeconomic analysis is defined as the five counties that include lands within the BRWRA, including Catron, Sierra, and Grant counties NM and Apache and Greenlee counties AZ. The analysis attempts to identify all social and economic impacts in those counties that have occurred since the Project's inception in 1998.

#### Technical Section

14. **Comment:** Why were only confirmed livestock depredations, and not probable kills, used in the analysis in the 5-Year Review? **Response:** Tables 6 and 7 of the Technical Component show depredation figures for confirmed, probable and possible depredations and injuries of domestic livestock and dogs. Confirmed kills were used for comparison with both the FEIS (USFWS 1996) and other wolf populations. The FEIS (USFWS 1996) defined depredations as, "The confirmed killing or maiming of lawfully present livestock on Federal, State, Tribal, or other public lands, or private lands by one or more wolves. The Fish and Wildlife Service (FWS), Animal Damage Control (ADC), or FWS-authorized State or Tribal agencies will confirm killing or maiming of domestic livestock." The FEIS further stated, "No accepted method exists to project unconfirmed predation losses." Thus, the IFT compared confirmed depredations with the FEIS predictions because that was the information the EIS was predicting. Data from other wolf populations were based on confirmed kills, thus using probable and possible depredations with the Mexican wolf population would make comparisons invalid.

15. **Comment:** Is the issue of Mexican wolves hybridizing with dogs and coyotes addressed in the 5-Year Review? **Response:** It was not addressed in the draft version; however, it will be addressed in the final document. In addition, during the time frame associated with the 5-Year Review (1998-2003), there was only one instance of hybridizing with a dog by Mexican wolves and no instances of hybridization with a coyote. The pups of the one hybrid litter were euthanized. Thus, during the time frame of the 5-Year Review there was one hybridization event that had no effect on the population, thus no analysis of the data was possible or relevant. However, the lack of ability to analyze or describe an effect does not diminish the fact that genetic analysis of all captured animals is an important component of Mexican wolf reintroduction. We will continue to investigate genetic data and determine if introgression of either domestic dog or coyote genes has occurred within the Mexican wolf population. In 2005, a second hybrid litter was found and humanely euthanized. Again, these animals were captured prior to any introgression into the wolf population and thus had no influence on the overall population of wolves in the wild.
16. **Comment:** Why aren't the real livestock losses and wolf/human interactions accurately reported in the 5-Year Review? **Response:** All wolf/human interactions and livestock losses that were reported and available to the IFT were included in the 5-Year Review.

## **F. Wolf Biology**

1. **Comment:** Historically, the Mexican wolf never ate elk; the only elk they eat now are cripples and carrion. **Response:** Prior to when wolves were extirpated from the southwestern United States, distribution and abundance of prey species such as elk and deer may have been different from what they are today. Observations of wolves in the Southwest indicated that deer were the most important prey source (Bailey 1931, Bednarz 1988). This assumption was based largely on the fact that deer outnumbered all other large game, including elk, within the areas occupied by wolves. Today, elk are common within the reintroduction area, and this likely influences the relative frequency of elk to deer in the diets of Mexican wolves. At times, wolves may disproportionately use vulnerable prey. However, monitoring by the IFT and specific research studies (Reed 2004) indicate that wolves prey upon all sex and age classes of elk, and therefore are fully capable of killing live elk when necessary.
2. **Comment:** At the beginning of the program, people were guaranteed that wolves would not cross with dogs or coyotes. **Response:** Hybridization of wolves with dogs has always been recognized as a potential occurrence within the program as published in the Final Rule (63 FR 1752-1772). As discussed in the Final Rule, litters suspected to be wolf-dog hybrids have been captured, held in captivity, genetically tested for purity, and when necessary, euthanized to maintain the subspecies genetic integrity. A larger wolf population on the landscape would probably lower, but not completely eliminate the possibility of hybridization. The rationale behind this statement is simple: the more

wolves on the landscape, the more opportunities for single wolves to encounter and pair with other wolves. See also responses to E.15 and F.6.

3. **Comment:** Wolves won't stay in the Gila Wilderness Area because of a lack of prey (deer and elk). **Response:** Both wolves and prey populations may show seasonal movement across the boundaries of the Gila Wilderness. Some of the reintroduced wolf packs have established territories largely within the Gila Wilderness, and have spent extended periods of time inside the Wilderness. Although prey densities within the Wilderness appear to be adequate, at least seasonally, it is unreasonable to expect that any wolf packs will remain within the Wilderness 100% of the time.
4. **Comment:** Have wolves eliminated the prey base that coyotes and mountain lions depend on? **Response:** There is no evidence from game surveys and local observations that indicate elimination of coyote and mountain lion prey base. If the prey base had been eliminated, these predators would be absent from the landscape or there would be an increase in depredation incidences because these species would be preying on livestock and pets. These other predators have not been eliminated, and there is no evidence of an increase in coyote and mountain lion depredations since wolves were reintroduced.
5. **Comment:** As time goes by and there are more wolves, will they start running in large packs? **Response:** As the total number of wolves within the reintroduction area increases, wolves have the ability to congregate in larger groups. However, pre-reintroduction observations of Mexican wolves indicated relatively small pack sizes (Bednarz 1988). Resources (prey populations, water sources, large expanses of wilderness and other inaccessible areas) in the southwestern United States tend to occur at lower densities than in wolf habitats in places such as the northern Rocky Mountains. It is unlikely that large pack sizes (up to 37 animals; Smith et al. 2003) observed with reintroduced wolves in the Greater Yellowstone Ecosystem will occur in the Southwest. The average Mexican wolf pack size is 4.8 wolves. The largest pack observed to date was the Francisco pack in 2002 which consisted of 11 animals (six adults/subadults and five pups).
6. **Comment:** Hybridization is occurring between uncollared wolves and dogs; how is this being addressed? **Response:** There have been two documented incidents of free-ranging Mexican wolves breeding with dogs. Both cases involved a female Mexican wolf breeding with a male dog and resulted in hybrid litters. Both hybrid litters were humanely euthanized before any of the offspring had the opportunity to reproduce in the wild and impact the free-ranging population's genetics. Prior to releasing any Mexican wolf to the wild, blood is taken and banked at the University of New Mexico and the USFWS Ashland, Oregon Forensics Laboratory. Additionally, blood is taken and analyzed by the Forensics Laboratory from all canids (Mexican wolves, coyotes, feral dogs, wolf-dog crosses) that are captured or handled in the wild, for the purpose of monitoring genetic health of the free-ranging population and to assess any possible introgression of dog genes into the population. The Reintroduction Project cannot assure the public that no additional hybridization has occurred, since not every wolf born in the wild has been (or can be) captured and genetically assessed. However, aside from the two hybrid litters that

have been discovered, there is no evidence to date to suggest hybridization with dogs or other canids is occurring in the free-ranging Mexican wolf population. See also responses to comments E.15 and F.2.

7. **Comment:** How many litters are euthanized because they appear dog-like? **Response:** As noted in comment F.6, two Mexican wolf-dog hybrid litters have been humanely euthanized after genetic testing verified they were Mexican wolf-dog crosses. See also responses to comments E.15 and F.2.
8. **Comment:** The Mexican wolf is not a true wolf and can't bring down an elk. **Response:** The Mexican wolf is recognized by the scientific community and USFWS as a subspecies of the gray wolf. This recognition is based on scientific evidence, including morphological measurements (Bogan and Mehlhop 1983) and genetic analysis (Hedrick et al. 1997). The first Mexican wolves were released in 1998 and successfully preyed upon elk within six weeks of release. Released and wild-born wolves continue to prey on elk and other prey species.
9. **Comment:** Elk are not a native species and NMDGF should be focusing on controlling elk and bringing back the deer population. **Response:** Elk (*Cervus elaphus*) as a species are, in fact, native to the southwestern US. However, Merriam's elk (*C. e. merriami*), the subspecies that occurred in the Southwest at the turn of the 20<sup>th</sup> century, was eliminated by unregulated hunting. Elk were restored to AZ and NM in the early 1900s, when ranchers and kindred spirits brought in loads of Rocky Mountain elk (*C. e. nelsoni*), which have subsequently prospered. Regardless, elk were among the natural prey of wolves that historically occurred in central and northern AZ and NM. Mexican wolves are thought to have preyed more heavily on deer, however, especially toward the southern end of their range (i.e. in Mexico) where elk did not occur. Elk and deer populations in the Southwest have varied markedly over time. In recent decades, elk seem to have flourished in many areas, while deer herds appear to have declined. . Drought and habitat fragmentation are among the primary factors thought to lie behind deer herd declines. Both deer and elk are managed by State and Tribal wildlife agencies to meet population objectives that reflect trade-offs among many public and Tribal interests. Elk and livestock both graze, and competition between the two for forage allocations on public lands can be strong. In any event, it is unlikely that direct manipulation of elk numbers would result in substantial increases to deer populations, or vice versa. Deer browse, rather than graze, and forage use between the two is not as strongly overlapping as it is between cattle and elk. Moreover, changes in habitat quality and quantity would likely be the only effective way to increase numbers of either deer or elk. Some habitat manipulation could be accomplished by humans, but to some extent positive change is also dependent on weather cycles (rainy years are good for deer).
10. **Comment:** The Mexican wolf is capable of killing anything it wants. **Response:** The wolf is capable of preying upon a wide variety of prey items, including something as large as a cow or elk and as small as a mouse or insect.

11. **Comment:** Genetic viability of Mexican wolves is based on seven founders; what is the finite number for the genetic viability of a species in the wild? **Response:** The finite number for short-term viability in a sexual-reproducing species such as the wolf is two. However, to capture a representative amount of variability of a wild population, 20 to 30 unrelated founders is preferred (Ballou and Foose 1996; Ed Spevak, Cincinnati Zoo, personal communication). For some species this is no longer a luxury (e.g. Mexican wolf (7), Przewalski's horse (13-14), Pere David deer (3), black footed ferret (7), Mauritius Pink Pigeon (13), Guam rail (10), Mhorr gazelle (11), Attwater's Prairie chicken (19), red wolf (12), and Arabian oryx (13)). Conservation programs for these species were all started with the last known members of their species. In these instances, it is important to manage for as much genetic variability as possible.
12. **Comment:** Two of the Mexican wolf lineages have not been adequately incorporated in the wild population. This is easier to do while the population is small. This practice will help retain genetic variation and alleviate genetic depression. **Response:** The agencies involved in managing the reintroduced population are keenly aware of the issues and concerns, be they real or perceived, regarding the genetic health of the free-ranging Mexican wolf population. Sampling based on the collared free-ranging Mexican wolf population suggests the current *known* representation for the Ghost Ranch and Aragon lineages in the wild is 9.55% and 10.00%, respectively. The reality, however, is we do not know the full genetic composition of the wild population since releases and subsequent wild pairings and re-pairings have resulted in un-collared wolves breeding and producing offspring in which genetic testing to verify lineage representation has not been accomplished. Despite our best efforts to capture and test all wolves, the number of uncollared (thus genetically unknown) wolves will only increase as the population continues to grow. Genetic experts have indicated that ideally, the genetic composition of the wild population should mimic that of the captive population, which currently for the Ghost Ranch and Aragon lineages is 14.63% and 12.43%, respectively. As program managers, we can help facilitate this by carefully considering which wolves to release in the future. For example, most, if not all, of the releases and translocations accomplished in recent years have been done in order to infuse the wild population with Ghost Ranch and Aragon lineage wolves which we believe are underrepresented in the free-ranging population. This is because in the early years of reintroduction, the only wolves in captivity that were genetically redundant (and therefore available for release) were those of the McBride lineage. We also know that despite our efforts to augment the wild population with Ghost Ranch and Aragon wolves, many of them have been killed, removed from the wild, or otherwise have not successfully bred and reared offspring. However, it is important to note that even if release of wolves from the Ghost Ranch and Aragon lineages continues, the reality is that much of the genetic interplay is beyond the control of the agencies managing this program and in fact will depend more on which wolves survive in the wild to successfully interbreed and in turn, what successive generations do.
13. **Comment:** The reintroduction of wolves in the Blue Range Wolf Recovery Area (BRWRA) is jeopardizing other wildlife and watersheds. **Response:** Although we have

no data at this time specific to the BRWRA, primarily due to the small population size and lack of detailed studies prior to the reintroduction of Mexican wolves in the BRWRA, we can postulate on the effects of reintroducing a top level carnivore into an ecosystem from information gained in Yellowstone National Park. Scientifically obtained data shows a positive response from willows, aspen, and cottonwoods trees in areas frequented by wolves (Ripple and Beschta, 2003, 2004); suggesting wolf reintroduction has likely had a positive influence over watershed conditions. Wolves in Yellowstone have contributed to a more stable and healthy elk population (Smith et al. 2003). It has also been shown that wolves have reduced coyote populations and that wolf kills provide a meat source for bears, eagles and other scavengers (Smith et al. 2003; Robbins 2005). The Yellowstone studies have shown that the wolf plays an important role in contributing toward balanced ecosystem function. It is speculated that reintroduction of wolves will result in increased numbers of many species, and increased health of vegetation communities. There is no evidence whatsoever that Mexican wolves pose a threat to any other species of wildlife, in terms of population status.

14. **Comment:** Given that there are already bears and mountain lions in the Blue Range Wolf Recovery Area (BRWRA), the wolf is limited on where it can go and what it can do. There needs to be a study to look at the relationship between wolves and other top predators (i.e. lions and bears). **Response:** Wolves coexist with bears and mountain lions throughout much of their range. Specific interactions between wolves, bears, mountain lions, and other top predators have not been studied within the BRWRA. Resources within the Reintroduction Project have focused on day-to-day monitoring, management, and information dissemination relating to Mexican wolves. If additional funding were available, specific research projects such as those evaluating interactions among top predators might be able to be funded. These studies could also be pursued by independent researchers. AMOC has advocated that cooperating agencies and other interested parties undertake such research.
15. **Comment:** Doesn't the forest need a keystone predator like the wolf? **Response:** Keystone predators can improve the ecological health of natural communities. Although we have no data at this time specific to the ecological response of the reintroduction of wolves in the Blue Range Wolf Recovery Area (BRWRA), primarily due to the small population size and lack of detailed studies prior to the reintroduction of Mexican wolves in the BRWRA, we can postulate on the effects of reintroducing wolves from information gained in Yellowstone National Park. The importance of wolves in the ecosystem has also been shown on Isle Royal in Michigan (Peterson 1977). See also responses to comments F.13 and F.25.
16. **Comment:** What are the impacts of Mexican wolves on bighorn sheep populations? **Response:** To date, the impact of Mexican wolves on bighorn sheep has been insignificant. Wolves were possibly involved in the killing of two bighorn sheep since reintroduction began in 1998. In addition, wolves were documented feeding on the remains of a third bighorn sheep that was possibly killed by a mountain lion. It appears that mountain lions have a greater impact on bighorns than Mexican wolves.

17. **Comment:** How do we measure the pressure wolves put on other predators (e.g. bears, lions, coyotes) through competition? **Response:** Wolves most likely directly interact with other top predators at scavenging or kill sites. Wolves, especially when in packs, could displace individual predators from carcasses, resulting in a shortened time that an individual large carcass could feed a top predator. On the other hand, wolf kills could result in an increased number of carcasses being available for scavenging by other animals. Wolves may directly compete with coyotes, and reduce coyote populations (Smith et al. 2003). Quantification of the overall effects of wolf reintroduction on predator populations should be investigated through an intensive research project, which is currently beyond the financial capabilities of the Reintroduction Project.
18. **Comment:** Are wolves that feed on livestock carcasses more prone to attack livestock? **Response:** The 5-Year Review Administrative component states that 50% (22 out of 44) of the wolves involved in depredation incidents had fed on livestock killed by other causes. Conversely, 50% of the wolves that had depredation incidents had not been documented to have scavenged upon dead livestock. This data does not demonstrate a clear trend. However, 91% (20 out of 22) of wolves involved in scavenging incidents later killed livestock. The data is further confounded by the ability to find livestock carcasses caused by wolves or other causes. The possibility always exists that wolves have scavenged or killed livestock prior to the first documented instance of scavenging or killing. The IFT works with permittees to remove livestock carcasses or render them inedible according to permittee wishes. During certain times of the year (e.g. calving season for cattle or denning season for the wolves), it may benefit livestock operators to remove or render inedible carcasses whenever possible to limit localization behavior of wolves associated with carcasses in the area. However, Chavez and Gese (2005) suggested that hyper-abundance of secondary prey items and domestic livestock carrion dampened the need for wolves to switch to cattle. When given the choice between livestock carcasses and abundant native ungulates, wolves prefer ungulates (Salvador and Abad 1987, Meriggi et al. 1991, Smietana and Klimek 1993).
19. **Comment:** Is it true that when mountain lions make a kill, wolves will steal their kill, which in turn forces lions to kill more often than they would normally do? **Response:** Interspecific competition between wolves and lions has been documented throughout the West, including the Mexican wolf reintroduction effort. For example, mountain lions have been documented to kill wolves in the northern Rockies, and vice versa (Smith et al. 2003). However, neither is thought to be a significant mortality factor on the other (Ballard et al. 2003). The degree of interaction likely varies depending on the time of year and spatial use (Ballard et al. 2003). Wolves are more likely to interact with mountain lions in the winter, when prey, mountain lions, and wolves use valley bottoms because of high snow depth in the surrounding mountains. This may not hold true for the Blue Range Wolf Recovery Area, however, because snow is more ephemeral and prey species aren't as concentrated in valley bottoms. However, to the degree that the two carnivores interact, observations suggest that mountain lions generally avoid wolves, are at risk of predation from wolves, and are subordinate at kill sites (Smith et al. 2003). On

the Blue Range Wolf Recovery Area, wolves have been documented feeding on seven ungulates that were either confirmed, probable, or possibly killed by a mountain lion. It is unknown whether wolves usurped these kills from the mountain lions, or if the lions had simply abandoned the carcasses. In one instance, there was a dead wolf (killed by a mountain lion) at a mountain lion kill, and two other wolves feeding on the ungulate remains.

20. **Comment:** How many wolves involved in the captive breeding program have had litters of less than 100% pure Mexican wolves? **Response:** None. Only 100% pure Mexican wolves are part of the captive breeding program, and the breeding of Mexican wolves in the captive community is closely monitored and overseen by the Mexican Wolf SSP. The Mexican Wolf SSP program, administered by the American Zoo and Aquarium Association, manages Mexican wolf breeding to maintain a healthy and self-sustaining population that is both genetically diverse and demographically stable. Beyond this, the SSP participates in a variety of other cooperative conservation activities, such as research, public education, reintroduction, and field projects. The mission of the Mexican Wolf SSP is to help ensure survival of the Mexican wolf.
21. **Comment:** Why are documented hybrids allowed to run in the wild? **Response:** The Mexican Wolf Experimental Population Final Rule states that “the Service or any agent so authorized by the Service may capture, kill, subject to genetic testing, place in captivity, euthanize, or return to the wild (if found to be a pure Mexican wolf) any feral wolf-like animal, feral wolf hybrid, or feral dog found within the Mexican Wolf Experimental Population Area that shows physical or behavioral evidence of hybridization with other canids, such as domestic dogs or coyotes.” There have been two known occurrences of Mexican wolves breeding with dogs that resulted in hybrid litters; both of these litters were humanely euthanized. In addition to these, four possible domesticated hybrids (most likely family pets at one time, not Mexican wolf hybrids) have been discovered within the Blue Range Wolf Recovery Area. None of the cooperating agencies can control or regulate hybrids from the domestic pet trade, except that if they are captured, they are removed from the wild as per the Final Rule. See also responses to F.6 and F.7.
22. **Comment:** What happens to hybrid wolf litters? **Response:** Hybrid Mexican wolf litters are humanely euthanized. See also response to F6.
23. **Comment:** What can be done about the depleted gene pool? **Response:** The captive managed population is descended from seven founders, none of which are still alive. New founders could only be added if wild wolves were discovered in Mexico (an unlikely, but possible, event) and brought into the bi-national captive breeding program. The current gene diversity in the captive population is 82.41%, lower than the average for other mammals in the Mexican Wolf SSP (93%). When gene diversity falls below 90% of that in the founding population, reproduction may be compromised by such things as lower birth weights, smaller litter sizes, and greater neonatal mortality (Siminski and Spevak 2004). At present, the captive population of Mexican wolves could maintain only 75%

gene diversity for 38 years and would be expected to maintain 64.58% after 100 years. Loss of gene diversity could be slowed by increasing annual population growth rates and increasing the effective breeding population (number of animals capable of breeding). However, both are affected by the social structure of the species and the carrying capacity of the captive facilities (literally, the number of pens available for captive wolves), the latter of which would also need to be increased. Increasing the representation of under-represented founders will also slow the loss of gene diversity.

24. **Comment:** Why isn't there an active program of habitat enhancement in the wilderness to provide more prey for wolves and lessen the impacts on domestic livestock? **Response:** The Wilderness Act of September 3, 1984 and USFS policy prevent any direct habitat improvement in Congressionally designated wilderness. Passive improvement such as natural fire management is allowed which, under desirable conditions, creates a mosaic of early successional stage vegetation across the landscape that should favor ungulate populations. However, there is no indication at this time that prey abundance and availability are limiting for Mexican wolves anywhere in the BRWRA.
25. **Comment:** What is the value of a top predator like the wolf? **Response:** Although we have no data at this time specific to the BRWRA, primarily due to the small population size and lack of detailed studies prior to reintroduction of Mexican wolves, we can postulate on the effects of reintroducing a top level carnivore into an ecosystem from information gained in Yellowstone National Park. Scientifically obtained data shows a positive response from willows, aspen, and cottonwoods in areas frequented by wolves (Ripple and Beschta, 2003, 2004) in Yellowstone, suggesting wolf reintroduction has had a positive influence over watershed conditions. Wolves in Yellowstone have contributed to a more stable elk population (Smith et al. 2003). It has also been shown that wolves have reduced coyote populations and that wolf kills provide a meat source for bears, eagles and other scavengers (Smith et al. 2003, Robbins, 2005). The Yellowstone studies have shown that the wolf plays an important role in contributing toward balanced ecosystem function.
26. **Comment:** The program has spent \$12,000,000 to date on wolf reintroduction, or \$200,000/wolf. At this rate, it will take another \$25,000,000 to achieve recovery. Is it worth it? **Response:** Conservation of the Mexican wolf is required under the ESA. Top carnivores, such as the Mexican wolf, are known to make significant contributions toward ecosystem health and functionality. It is not possible to assign a monetary value to the role of wolves as top predators in the wild, and whether or not the program is worth a given amount of money is a question of values that must be answered individually. However, recovery of the Mexican wolf also addresses State and Tribal obligations to manage wildlife. Moreover, the total costs cover more than just the Reintroduction Project; recovery costs are also a significant component of the total cost. The costs of ensuring significant opportunities for public involvement in the program are also substantial. Moreover, the \$12,000,000 referenced includes funds spent over a 20-year period before reintroduction began.

27. **Comment:** What is the probability that wolves will transmit infectious diseases? **Response:** Wolves can host a variety of diseases and generally are susceptible to diseases that affect dog or coyote populations, such as canine distemper or canine parvovirus (Kreeger 2003, Hedrick et al. 2003). Many diseases may be passed from domestic dogs, coyotes, or foxes to wolves and back to these species. Wolves also can have diseases that are present in ungulates (such as leptospirosis, or brucellosis), or through intermediate host such as ticks spreading Lyme disease from deer or mice to wolves (Kreeger 2003). Wolves may acquire rabies by a bite or receiving a wound from an infected animal, or by ingesting an infected animal. Striped skunks, gray foxes, and bats are considered the primary vectors of rabies in the Southwest. The Mexican wolf project vaccinates all wolves in captivity prior to their release to the wild and those captured in the wild for canine distemper, adenovirus, coronavirus, parainfluenza, parvovirus, and rabies. All of these vaccines are approved for domestic dogs. The vaccines are effective in preventing diseases in wolves, but wolves have not been clinically challenged by the diseases following vaccination and thus USDA has not approved some vaccines (e.g. rabies and canine distemper) for wolves (Kreeger 2003). Transmission of rabies and other diseases to humans is very remote unless people are either bitten by a wolf (rabies) or smell the scat (e.g. *Echinococcus* spp.) of wolves. *Echinococcus* spp. are not known to exist in the Southwest, and to date no Mexican wolves in the wild have come into physical contact with people during the Reintroduction Project. The bottom line is that wolves have nowhere been shown to be significant disease vectors in comparison to the individual or aggregate number of other wild and domestic mammals present in an area.
28. **Comment:** What is the lower limit (minimum viable population) for wolves? **Response:** Minimum viable population size (MVP) for wolf populations in the Southwest has not been defined. Defining MVP requires the identification of an acceptable level of certainty of population persistence over a given period of time, given the parameters of the population, and the characteristics of the environment (e.g. likelihood of stochastic, or chance, events). MVP sizes may be considered during recovery planning as a component of the scientific standard for recovery. The 1982 Mexican wolf recovery plan (USFWS 1982) did not define a recovery goal, but rather stated “the Mexican Wolf Recovery Team sees no possibility for complete delisting of the Mexican wolf.” The 1982 plan went on to state its prime objective as: “To conserve and ensure the survival of *Canis lupus baileyi* by maintaining a captive breeding program and re-establishing a viable self-sustaining population of at least 100 Mexican wolves in the middle to high elevations of a 5,000-square mile area within the Mexican wolf’s historic range.” (USFW 1982). At the time, the Mexican wolf’s historic range was thought to extend to the north into southern AZ and NM, as well as southeastern Texas (USFWS 1982). Recent evidence indicates that Mexican wolves occurred as far north as southern Colorado (Leonard et al. 2005), suggesting a far greater area could be considered for recovery of the Mexican wolf. The Southwestern Distinct Population Segment Gray Wolf Recovery Team was formed in 2003 to draft a recovery plan for the Southwest. However, the team is currently on hold due to litigation (see Response to Comment M.1). This recovery team (when reactivated) will assess the best available science, including consideration of population viability, to develop recovery criteria that indicate threats to the species have been alleviated. Despite

the current lack of defined recovery goals in the Southwest, some information on a recovered wolf population can be drawn from other recovery plans for gray wolves. The Northern Rocky Mountain Wolf Recovery Plan identified a recovery goal of 10 breeding pairs of wolves for three consecutive years in three recovery areas (USFWS 1987). These sub-populations would be connected through dispersal and function as a meta-population of approximately 300 wolves. The Eastern Gray Wolf Recovery Plan identified the need for 1,251 to 1,400 wolves in Minnesota and one other viable population of wolves (200 wolves if the population was more than 100 miles from the Minnesota population, or 100 wolves if closer than 100 miles for five years) (USFWS 1992). We do not know yet what recovery of the wolf in the Southwest will entail when the Recovery Plan has been revised, but will be determined through the recovery process rather than the 5-Year Review process.

### **G. Compensation**

1. **Comment:** People are not turning in pet and livestock depredation reports because they know they won't be compensated for them. **Response:** The compensation program is administered by Defenders. There are specific criteria that must be met to qualify for compensation (see Response to Comment G.4); however, if reports are not turned in, then obviously compensation can't be considered or dispersed. Choosing not to submit a claim because "you know" that it will not be honored, is a self-defeating and self-fulfilling prophecy. Whether or not compensation is desired from Defenders, having a complete and accurate compilation of wolf depredation reports will assist the cooperating agencies in making appropriate management decisions regarding Mexican wolves. Many ranchers report possible coyote, mountain lion, and bear depredation for management purposes, despite no compensation for these predator losses. In areas where known wolf packs are present, the IFT works with ranchers to ensure that depredations discovered by ranchers are investigated. In addition, the IFT occasionally finds cattle carcasses while monitoring wolf activities. These carcasses are documented and investigated.
2. **Comment:** Does anyone pay compensation for chickens that are depredated on by wolves? **Response:** The Bailey Wildlife Foundation Wolf Compensation Trust, administered by Defenders, will compensate for wolf-related loss of sheep, cattle, horses, mules, goats, llamas, donkeys, pigs, chickens, geese, turkeys, herding dogs and livestock guarding dogs.
3. **Comment:** There needs to be a serious effort by the government to fairly compensate ranchers for their losses, including the added burden on finite resources of dealing with wolves (e.g. broken fences, bookkeeping, labor). **Response:** Federal, State, and Tribal governments do not compensate ranchers for livestock injured or killed by Mexican wolves and have no legal authority to do so. Suspected wolf depredations on livestock are investigated by the IFT. Copies of investigation reports are sent to the resource owners to determine if they are willing to share the information with Defenders for consideration of payment. The property owner bears the responsibility for contacting Defenders. Defenders will pay full market value for confirmed livestock killed by wolves up to

\$2,000.00/animal. They pay 50% of market value (up to \$1,000.00/animal) for probable losses when evidence is strong, but not conclusive that wolves have killed the livestock. If Defenders and the rancher do not agree on the value of the livestock, the local County extension agent determines the price. The fund does not compensate for livestock covered by an insurance program or an existing State program. Establishment of a Federal, State, or Tribal compensation program would require legislative action. xxx

4. **Comment:** An insurance program (vs. compensation) for livestock depredations by wolves should be evaluated. **Response:** AMOC has established a compensation subcommittee to evaluate alternative compensation programs such as the one described in the comment. Updates on progress have been reported during quarterly AMOC meetings.
5. **Comment:** Has there been any compensation to County governments for tax revenues lost because of wolf depredations on domestic livestock? **Response:** No. County governments are not compensated for loss of tax revenues associated with wolf depredations on domestic livestock.
6. **Comment:** Ranchers should be compensated for livestock losses due to wolves, and by the same token, ranchers are obligated to improve their management practices such that wolf depredations are minimized. **Response:** The issue of compensation is currently outside the purview of any Federal, State, or Tribal agency since no existing law, regulation or policy authorizes Federal, State, or Tribal agencies to compensate livestock owners for verified depredations from any types of predators (e.g. mountain lion, bear, wolf, coyote). See also Response to Comment G.3. Livestock grazing on national forest lands is administered through a grazing permit, annual operating instructions, and an allotment management plan. Livestock husbandry practices can be incorporated into any or all of these documents by agreement of both the agency and the permittee.
7. **Comment:** As compensation for rancher losses to wolf depredations, they could sell canned hunts for hunters to kill wildlife in fenced areas. **Response:** Both AZ and NM have laws governing establishment of game farms on private lands. The promotion of canned hunts for wildlife is beyond the purview of the Mexican wolf Reintroduction Project.
8. **Comment:** Compensation for livestock depredations by wolves should be government sponsored and not a Defenders program. **Response:** Federal, State, and Tribal agencies have no legal authority to compensate ranchers for livestock depredations attributed to Mexican wolves. At this time, the Bailey Wildlife Foundation Wolf Compensation Trust, administered by Defenders, is the only established mechanism to compensate for wolf depredations. Defenders' goal is to shift economic responsibility for wolf recovery away from individual ranchers and toward individuals who want to see wolf populations restored. See also Response to Comment G.6.
9. **Comment:** AZ only produces 2% of the beef in the nation, and there are only 1,600 public land ranchers in the State, 1/3 of which would accept a \$175/AUM buyout.

**Response:** If a rancher had a 300 head year-round permit on national forest land, a buyout would cost \$630,000 (3,600 AUMs X \$175). A “buyout program” would have to be approved by Congress and signed into law by the President. There is currently no proposed legislation, law, regulation or policy that would allow for the buyout and retirement of livestock grazing permits or the expenditure of Federal funds for such a program. Furthermore, the National Cattlemen’s Beef Association and its State affiliates and their membership oppose buyouts.

10. **Comment:** The current compensation program is inadequate to compensate for actual losses. **Response:** The number of confirmed depredations by Mexican wolves on domestic livestock in the Blue Range Wolf Recovery Area is a minimum value (see Exhibits 3-3, 3-7, and 3-8 in the Socioeconomic Component). Some livestock carcasses are never found, due to the large size and rugged nature of many allotment pastures. Other livestock carcasses may eventually be located, but not until weather, scavengers, and decomposition obscures cause of death. Finally, calves may be entirely consumed in a very short period. As stated in the Response to Comment G.3, the government does not compensate ranchers for livestock injured or killed by Mexican wolves and has no legal authority to do so. Defenders’ privately funded and administered livestock compensation fund is an attempt to shift some of the economic burden of wolf recovery from livestock producers to those who support wolf reintroduction. Pay-outs from the fund for confirmed and probable wolf depredations on livestock are market-based and Defenders goes to great lengths to work directly with affected livestock owners to ensure a fair and equitable valuation. AMOC continues to work toward addressing the bigger issues of how to fairly assess actual losses, develop additional sources of funding, and administer the program in a fashion acceptable to all involved parties.

11. **Comment:** Has Congress appropriated any money for wolf depredation compensation?  
**Response:** No. See response to G.3.

12. **Comment:** Ranchers should be fairly compensated for wolf losses and other wolf-related expenses, and there should be lower standards in terms of what constitutes proof of livestock depredation before a rancher can get paid. **Response:** Federal, State, and Tribal agencies currently do not have authority or funding to provide for a compensation program to offset wolf depredations and other wolf-related expenses. Such authorities would require legislative change. The only compensation program is a private program run by Defenders. Defenders’ website describes the program as follows: “In 1987, Defenders of Wildlife created a \$100,000 fund to compensate ranchers in the U.S. Northern Rockies for all verified livestock losses to wolves. Anticipating the reintroduction of the Mexican wolf, the fund was expanded in 1995 to cover potential losses in the southwestern United States and the States bordering the northern Rockies in 1999. In 1997, the compensation fund officially became the Defenders of Wildlife Wolf Compensation Trust. The trust expanded to \$200,000 in 1999. In the fall of 2000, The Bailey Wildlife Foundation made a generous contribution to Defenders wolf and grizzly bear compensation fund and the trusts were renamed to acknowledge the significance of the contribution. In total, Defenders has paid more than \$210,000 to more than 180

ranchers since the program's inception in 1987." (Defenders of Wildlife 2005). This includes \$35,023.00 in compensation claims in the BRWRA. In reference to lowering standards of proof, the IFT will maintain high standards to ensure that Mexican wolves are only accountable for their depredations. Reducing payment standards for the Bailey Wildlife Foundation Wolf Compensation Trust would need to be addressed by Defenders and those seeking compensation.

13. **Comment:** Grazing is already subsidized with low grazing fees, why should ranchers be further compensated? **Response:** Grazing fees are set by Federal law and are beyond the purview of AMOC. The present formula for calculating the grazing fees on Federal lands in the West was set forth in the PRIA of 1978. On February 14, 1986, after the expiration of the PRIA formula, President Ronald Reagan issued Executive Order 12548 directing the Secretaries of the Interior and Agriculture to continue to use the PRIA fee formula to calculate annual grazing fees. The order established a minimum fee of \$1.35. It also directed that for any given year the annual change in the fee shall not be greater than plus or minus 25 percent of the previous' years fee. In 1988, the fee formula from Executive Order 12548/PRIA was incorporated into 36 CFR 222 Subpart C.
14. **Comment:** What can be done to improve the compensation program to include probable wolf kills if the physical evidence points to wolves? **Response:** The Defenders compensation program pays 50% of market value (up to \$1,000.00/animal) for probable losses when evidence is strong, but not conclusive that wolves have killed the livestock. Reducing the standards for the Bailey Wildlife Foundation Wolf Compensation Trust would be between the Defenders and those seeking compensation. See also response to G.3, G.10, and G.12.
15. **Comment:** The Defenders compensation program does not adequately compensate for the loss of an animal. **Response:** See responses to G.3, G.10, G.12, G.14, and G.16.
16. **Comment:** The Defenders compensation program should pay for the lifetime value of cow production lost. **Response:** The Defenders wolf compensation fund is a private program funded by private donations. Their policy is to provide full market-based compensation (up to \$2,000.00/animal) for confirmed wolf depredations on livestock. In addition, they pay 50% of market value (up to \$1,000/animal) for probable wolf depredations on livestock. The average lifetime value of a cow (in terms of calf production and sales), given all the variables and hazards (both known and unknown) of an open-range existence would be extremely difficult to determine, and somewhat speculative in any event. Although AMOC can make suggestions, any changes to the existing compensation program is ultimately under the purview of Defenders. See also Response to Comment E.4.
17. **Comment:** Has the San Carlos Apache Tribe been compensated for cattle losses, and who compensates the Tribe? **Response:** SCAT has received compensation from Defenders for wolf-related livestock loss. Compensation claims are processed identically to those submitted by private ranchers/livestock owners.

18. **Comment:** Can additional funding be provided to the San Carlos Apache Tribe for range riders? **Response:** USFWS provides funding annually to the SCAT wildlife department in support of wolf management efforts. There is a great deal of flexibility in how this money can be used, depending on identified needs of the Tribe. In addition, the Defenders Proactive Carnivore Conservation Fund was established to reduce conflicts between predators (such as wolves) and humans before such problems arise. Tribal proposals to reduce conflicts between Mexican wolves and livestock on SCAR through use of range riders and/or other methods can be submitted to Defenders for funding consideration. Finally, USFWS is constantly seeking additional sources of funding, personnel, and equipment to assist cooperative efforts in managing wolves both on and off Tribal lands.

#### **H. AMOC/IFT**

1. **Comment:** Does AGFD purposely overestimate the number of deer in the Blue, not to put wolves on the land, but to keep hunter numbers (and license revenues) up? **Response:** AGFD does not overestimate the number of deer in the BRWRA for any reason. Hunt recommendations are made annually, based on surveys conducted by Wildlife Managers assigned to that GMU and in full compliance with agency-wide guidelines discussed with and approved by the AGFC Commission in public session. Each recommendation is discussed with AGFD's Executive Staff before final permit recommendations are made to and approved by the Commission. Any evidence of intentional over or underestimation should be brought to the attention of AGFD's Director.
2. **Comment:** Has AGFD decreased the number of elk permits because of wolves? **Response:** No. See also C/R 1, above.
3. **Comment:** Why were elk permits cut for the vicinity of East Fork NM? **Response:** The number and type of elk permits issued in NM are based on unit management objectives and current population numbers, composition, and trends relative to those objectives. Within some portions of the Gila National Forest, the number and type of elk permits issued have recently been modified in an attempt to prevent populations from falling below these objectives. Decisions to modify permit numbers were in no way influenced by the presence of Mexican wolves.
4. **Comment:** Why doesn't USFWS leave WS alone, so they can more effectively conduct capture and lethal of problem wolves? **Response:** In accordance with SOP 13.0: Control of Mexican Wolves, WS has the lead on control of wolves involved in livestock depredations. All other employees, including USFWS are there to assist WS to effectively implement control actions. The bottom line is that the six cooperating agencies, including WS, have signed an MOU to work together as full partners in the Mexican Wolf Reintroduction Project.

5. **Comment:** Are the agencies involved in wolf reintroduction shooting elk to feed wolves? **Response:** No. None of the management agencies shoot elk, deer or any other prey to feed wolves. Dead elk and deer are sometimes salvaged to provide supplemental food for captive or recently-released Mexican wolves. These carcasses are usually the result of automobile collisions, but sometimes become available from depredation control or other management actions if other needs for the carcasses have not been identified. All salvage and transport of carcasses is conducted in compliance with Reintroduction Project SOPs 8.0 and 9.0, and State and Tribal wildlife agency policies to prevent the spread of CWD.
6. **Comment:** Some County Commissioners say (including today in this public meeting) they will no longer attend AMOC meetings because it gives credence to wolf recovery. **Response:** It is unfortunate that some elected officials have opted not to take advantage of the opportunity to represent their constituents' interests through direct participation in the AMOC meetings. Past participation by such officials has been invaluable in ensuring that local perspectives and concerns are represented and considered as decisions are being made. AMOC is deeply appreciative of the continued effective, constructive, and persistent participation by Greenlee County, and encourages others to consider a similar approach. The United States operates under a framework of participatory government, and those who do not participate have little ability to help shape the decisions that affect their lives. Whether the non-participating counties' decision not to participate appropriately reflects the will of their constituents is not for AMOC to decide. Nevertheless, we believe the program and the outcomes would benefit from stronger participation by all interested parties, including county governments, and we invite them to do so. Although the purpose of the reintroduction program is to ultimately recover the Mexican wolf, pursuant to the ESA, participation by the Counties in the adaptive management process does not require their endorsement or support of reintroduction.
7. **Comment:** The AGFD radio room 1-800-352-0700 number has problems. **Response:** Absent specifics, it is impossible to address this concern. We do not know whether the alleged problems were of a technical nature, or something else. However, the AGFD Radio Room operates 24 hrs/day, every day of the year (i.e. no days off), Its operating procedures are highly standardized and rigidly enforced. Routine performance audits include supervisory personnel listening to the audio tapes (every call is recorded) to ensure that the highest possible standards of customer service are met. So, until and unless some specific details are provided, this allegation will not be considered further.
8. **Comment:** What is the purpose of WS helping USFWS in the recovery of Mexican wolves? **Response:** The ESA of 1973 commits all Federal departments and agencies to conserve endangered and threatened species, and to use their authorities in furtherance of the purposes of the ESA. WS, a Federal program, is responsible for providing Federal leadership and expertise to resolve conflicts between humans and wildlife, including threatened and endangered species under Federal legislation of March 2, 1931. Conflicts are resolved in cooperation with Federal, State, and Tribal agencies, individuals, and other public and private agencies, organizations, and institutions.

9. **Comment:** Ranchers can deal with predators, but with wolves, they have to come to the government agencies responsible for wolf reintroduction, and they do little to control the wolves. **Response:** The harassment provision of the Final Rule allows anyone to harass Mexican wolves to scare them away from people, buildings, facilities, livestock, other domestic animals, and pets anywhere in the MWEPA. A person may kill or injure a Mexican wolf in defense of human life or when wolves are in the act of attacking their livestock on their private land. In addition, under the Final Rule (p. 1764) the take of Mexican wolves by livestock guarding dogs when used in the traditional manner to protect livestock on public, Tribal, and private lands, is permitted. Livestock producers/owners can also call upon the IFT (which includes WS) for assistance (see also Response to Comment H.39). WS was created within USDA in 1885 to provide Federal leadership in resolving predator conflicts. In 1931, Congress formally granted authority to WS to manage predators where they came into conflict with humans. Congress has provided limited funding to WS for assistance in livestock depredations by wolves in AZ and NM. Additional options for livestock operators to address wolf conflicts could become available at the point where wolves were sufficiently recovered to be delisted under the ESA.
10. **Comment:** Hunting needs to be curbed because it takes away the wolf's choice. **Response:** All modeling and data analyses that have been conducted for the Blue Range Wolf Recovery Area indicate that prey availability is sufficient to support Mexican wolves. The participating management agencies believe that existing hunting regulations do not need to be modified in order to support sufficient numbers of prey for wolf reintroduction.
11. **Comment:** The red wolf reintroduction program back East is doing well relative to the Mexican wolf program. What is the red wolf program doing right and how can it be incorporated into the Mexican wolf program? **Response:** The red wolf program initiated wild releases in 1987. Thus, this program was initiated 11 years prior to the Mexican wolf program. By comparing the first seven years of the red wolf program (1987-1994) to the first seven years of the Mexican wolf program (1998-2005), the population parameters are actually quite similar. For instance, the red wolf program had 2, 0, 1, 4, 2, 5, 9 litters born in 1988, 1989, 1990, 1991, 1992, 1993, and 1994, respectively, consisting of 2, 0, 3, 14, 4, 18, and 25 pups, respectively (Phillips et al. 2003). The Mexican wolf program had 0, 8, 5, 3, 21, 20, and 22 pups born in 1998, 1999, 2000, 2001, 2002, 2003, and 2004, respectively, resulting in 0, 0, 1, 3, 5, 3, and 6 breeding pairs (a male and female and at least 2 pups that survive until December 31 of the year of their birth), respectively (Technical Component; see also AGFD et al. 2005). Other similarities exist between the two programs in release success (21% and 26% for the red and Mexican wolf program, respectively (Technical Component; see also Phillips et al. 2003)). Overall, the Mexican wolf program is making progress similar or slightly better than the red wolf program at a comparable stage in the reintroduction process.
12. **Comment:** Why was a recreation area at Snow Lake closed because of wolves? **Response:** At the request of the IFT, with concurrence from USFS, the recreation closure

at Snow Lake was put in place to prevent harassment and potential displacement of wolves that had denned within a mile of the trailhead during the reproductive period. This practice is put in place only in areas where substantial possibility exists of human/wolf conflict to prevent disturbance to wolves when they are birthing and caring for pups.

13. **Comment:** Why are so few illegal wolf shooting cases resolved? **Response:** Most crimes are solved by gathering information from witnesses present at the scene. This allows investigators to accumulate information and build a case. Also, witnesses are rarely in the area for wildlife related crimes. Furthermore, people often falsely assume that wildlife crimes are not a serious violation (similar to speeding), and thus do not report these crimes. Despite these hindrances, special agents within USFWS investigate all wolf mortalities and make cases on wolf shootings wherever wolves occur in the USA.
14. **Comment:** Could a reward system be implemented to assist in the apprehension of criminals that illegally shoot wolves? **Response:** Rewards are offered by USFWS, AGFD, and NMDGF for information that leads to apprehension of individuals who illegally take protected wildlife, including Mexican wolves. An additional \$35,000 is being offered by a variety of public interest groups for information regarding illegal take of Mexican wolves. Information on these rewards can be found within the Mexican wolf monthly updates, or at <http://mexicanwolf.fws.gov/notes.cfm>.
15. **Comment:** People are afraid to report observations of wolves because if the wolves are found dead at a later date, they might be blamed. **Response:** This fear is unfounded. When a wolf is found dead, the subsequent investigation focuses on where the evidence leads. Someone who has previously reported a wolf in that area might be contacted for further information, but that does not mean they are a suspect in the death.
16. **Comment:** The San Carlos Apache Reservation does not support wolf reintroduction on their Tribal lands because of consequences to their cattle operations. **Response:** The Final Rule (63 FR 1752-1772; USFWS 1998) allows Tribes to choose whether wolves are present on their land, similar to the guidelines for private landowners. SCAT currently does not support wolf restoration on SCAR. A standing Tribal resolution requests removal of all wolves from SCAR. A primary reason for the resolution is concern over cattle depredation; other stated concerns include a lack of adequate funding for wildlife management, and wolf impacts on the Reservation's trophy elk hunt.
17. **Comment:** Can the IFT/Reintroduction Project identify potential problem areas before incidents occur such that proactive measures, including communication with affected ranchers/landholders, can be initiated before an incident occurs? **Response:** Yes, and AMOC and the IFT will focus on doing this from now on. A full-time outreach position was added to the IFT in 2005, and identification of problem areas will be among the primary priorities for that position. We will also identify additional proactive measures that can be implemented in the program and will accept specific suggestions anyone would care to provide to help us achieve this objective.

18. **Comment:** The educational component of reintroducing wolves is missing from eastern AZ. What can be done to get this information out there? **Response:** Much of the IFT outreach activity in previous years has been in response to presentation requests from interested parties. Thus, many of those presentations have been to civic groups, schools, and other (primarily urban) groups. With addition of a full-time outreach position on the IFT, this is changing. Emphasis will increasingly be on outreach to landowners and agencies in the reintroduction area to ensure that information about the Project, and life in wolf country, flows freely and objectively, with all aspects fully disclosed. We will use presentations as a primary mechanism, but we also intend to expand mass media outreach efforts, including local newspapers, radio stations, and other appropriate venues.
19. **Comment:** How many wolves and breeding pairs are there in the wild, and what is the trend in wolf numbers? **Response:** The number of breeding pairs in the wild and wolf numbers are increasing. However, like all wildlife populations, there are fluctuations in the number of breeding pairs and the population due to mortality, weather, disease, reproduction, removals, and numerous other causes. In 1998, 1999, 2000, 2001, 2002, 2003, and 2004 there were 0, 0, 1, 3, 5, 3, and 6 breeding pairs (Technical Component; see also AGFD et al. 2005). The number of breeding pairs for 2005 cannot be counted until December 31, but currently it appears that 5-8 will be counted. Similarly, trends for the minimum population count have been observed with counts of 4, 15, 22, 26, 42, 55, and 44-48 for 1998, 1999, 2000, 2001, 2002, 2003, and 2004, respectively (Technical Component; see also AGFD et al. 2005). Current counts (September 2005) of wolves indicate a minimum of 51-63 wolves in 2005.
20. **Comment:** Have 70% of all wolves that have been released left the recovery zone? **Response:** No. Data reported in the 5-Year Review indicates that 68% of single wolves (those either dispersing, or that left the pack following release) were outside the boundary for one location (see Technical Component). Of 39 yearly home ranges of wolf packs that have been delineated, only 11 had small portions of their total areas that occurred outside the BRWRA.
21. **Comment:** Why haven't more wolves been collared in the last couple of years? **Response:** The IFT has not been fully staffed or funded over the last couple of years, which restricted the Team's ability to pursue wolves for collaring. The IFT focuses on trying to ensure having one or more collars in a pack of wolves instead of trying to collar every wolf. The Team continued to attempt to collar pups, and uncollared adults, however, this is a lesser priority than management situations regarding livestock depredations, human nuisance, or boundary removals. For example, in 2001 the IFT captured 17 wolves a total of 19 times, with 10 of the captures being removals (six captures were made from a helicopter). Similar patterns occurred in 2002 (15 wolves in 20 captures, with six removals), 2003 (15 wolves in 15 captures, with 14 removals), 2004 (nine wolves in nine captures, with seven removals), and 2005 (18 wolves [including four pups] in 18 captures, with 15 removals). The IFT has averaged 15 wolves captured per year. The proportion of removals to animals released generally will dictate how many additional collars will be placed in the wild. With a fully staffed Team more emphasis

will be focused on trying to put more collars on wolves, but this does not mean every wolf will have a collar. However, first priority will continue to be given to management scenarios, followed by capture for collaring purposes. The ability to achieve both of these goals increases with a fully staffed and funded team.

22. **Comment:** Why doesn't the Federal government have an Outreach Coordinator? **Response:** All AMOC Lead Agencies are full partners in Mexican wolf reintroduction in the BRWRA. To minimize redundancy and maximize efficiency of finite resources, the six agencies share human resource and fiscal assets. In this case, AGFD funded an IFT outreach coordinator, stationed in Alpine AZ. She is supported in this endeavor by the entire IFT, and by External Affairs Offices of the various member agencies.
23. **Comment:** Given the AGFD policy of not managing elk below the Mogollon Rim, should wolves not be allowed below the Rim as well? **Response:** AGFD does not have a policy to not manage elk below the Rim. It is, however, AGFD's desire not to have year-round elk populations in marginal habitats, and hunt recommendations are structured for this desired result. The purpose of the Mexican Wolf reintroduction effort is to attain a self-sustainable population distributed throughout the BRWRA, including available suitable habitat below the Rim.
24. **Comment:** What are State and Federal expenditures for predator control? **Response:** As the primary agency conducting predator control, WS does not track funding by predator control. WS tracks funding based on groups of resources protected such as agriculture, human health and safety, natural resources, and property. Congress has provided annual funding in the amount of \$150,000 for wolf depredation work in AZ and NM which after overhead amounted to \$59,209 per State at the field level.
25. **Comment:** What is the estimate in AZ for how much game the wolf has taken in the last year? **Response:** No such estimate has been made. The Mexican Wolf FEIS (USFWS 1996) estimates 4800-10,000 fewer deer and 1200-1,900 fewer elk at a point in time five years after the initial wolf population goal of at least 100 wolves is achieved. Data gathered on free-ranging wolves since their release in 1998 suggest a heavier reliance on elk than what was estimated in the FEIS.
26. **Comment:** Is the purpose of AMOC wolf policies to remove the wolf from the wild? **Response:** No. AMOC's intent is to further recovery of the Mexican wolf, pursuant to the ESA, in a manner that balances biological science with economic and social considerations for effective implementation of reintroduction and recovery efforts.
27. **Comment:** Does each member of the AMOC panel support the delisting of wolves? **Response:** Yes. Each agency (Federal, State, and Tribal) represented on the panel is dedicated to the recovery, and eventual delisting, of the Mexican wolf.
28. **Comment:** Are decisions pre-made before going to the public? **Response:** No. Any time proposed actions or draft documents are brought to the public for comment, they are

considered to be open questions. Many decisions within the Reintroduction Project are guided by SOPS, which we made available as drafts for public comment. Occasionally, the management agencies may make decisions regarding management actions that are not addressed by the SOPs, and require decisions to be made in a time frame that does not allow for public input specific to that management action. In these cases, information will be reported to the public as decisions and actions that have already occurred, not as a proposal open for comment. Any proposal that includes an opportunity for public comment could ultimately be implemented as presented, implemented as modified by public comments, or not implemented at all, based on public input that is received.

29. **Comment:** Is there a committee set up beyond AMOC to handle conflicts? **Response:** No. However, twice each year, AMOC meets with Directors of the cooperating agencies for a day-long discussion of all aspects of the Reintroduction Project, including conflicts, problems, and progress. In addition, when a key issue arises during the year, AMOC consults with the Directors as needed before a decision is made.
30. **Comment:** Are ranchers and rural residents receiving timely notification of wolves in proximity to their domestic animals and places of residence? **Response:** It is a priority of the IFT to notify landowners and permittees in a timely fashion when wolves are in the immediate vicinity of domestic animals and residences. Based on the locations of wolves, the appropriate landowners and permittees are contacted following telemetry flights. Landowners, permittees, and residents may also receive personal contacts from IFT members if wolves are detected in their immediate vicinity based on ground observations. However, wolves have the ability to move long distances within small amounts of time, and wolves may show up anywhere within the reintroduction area on short notice. Also, as natural reproduction plays an increasing role in the growth of the wolf population, uncollared wolves will make up a larger proportion of the overall population. Uncollared wolves are unable to be tracked via telemetry, and are therefore more likely to be observed by landowners or permittees before being contacted by the IFT. Notification of all landowners, permittees, and residents within the reintroduction area exceeds the capabilities of the IFT, but staff resources are prioritized to direct efforts toward those individuals within the immediate vicinity of Mexican wolves.
31. **Comment:** Should IFT members assist or be involved with WS in depredation investigation? **Response:** All suspected or reported wolf depredations and wolf-human conflicts will be investigated immediately and reported appropriately, in strict accordance with SOP 11.0 (including reporting obligations). WS IFT members will respond within 24 hours to each incident or allegation of wolf-livestock conflict, and other IFT members will provide assistance as requested, appropriate, and/or necessary. Non-WS IFT members, with assistance from WS IFT members as available and appropriate, will handle wolf-human conflicts involving attacks on pets or domestic animals other than livestock, and other nuisance behavior as defined within SOP #13 – Control of Mexican Wolves.

32. **Comment:** Agency personnel in both the reintroduction and recovery programs have made broad, sweeping statements that have not withstood the test of time, which has led to distrust between ranchers and the program. What can be done to re-establish trust in the ranching community? **Response:** Without more specifics, it is possible that some of the broad, sweeping statements referenced were stated as generalities and unfortunately interpreted as absolutes. In addition, changes to government regulations, policies, and procedures over the years may make prior statements obsolete or inaccurate. It is inherent upon all of us to make sure that we say what we mean, mean what we say, and do our best not to misrepresent the truth. Trust is a two-way street predicated on such virtues as courtesy, honesty, and willingness to truly listen to what are oftentimes strongly held opposing viewpoints. Members of the Mexican wolf reintroduction team may not have always been as effective at relaying information as we would have liked, however, we continue to learn and we are dedicated to the truth, in dealing with our various publics openly and honestly. Over time, we hope to re-build and strengthen the bonds of trust. We acknowledge that agreement between parties may not always be possible, but one of our highest goals is for our constituents to believe that we are communicating forthrightly and are telling the truth as we know it at any given point in time.
33. **Comment:** What can be done to improve interactions with local government with the goal of a full partnership? **Response:** Local governments are urged to participate in the public process; such input provides the foundation for adaptive management in the reintroduction program. Local governments that have participated (and that continue to do so) have provided immensely beneficial information and insight into local concerns. In addition, AMOC can increase efforts to attend and participate in county government meetings to ensure that they have opportunities to engage in dialogue with us, and begin building or rebuilding the desired partnership. It is not necessary to support wolf recovery to participate in the reintroduction effort. A commitment to participate in a constructive manner is all that is necessary. Although responsibility for the program's decisions lies with the AMOC lead agencies (AGFD, NMDGF, USFS, USFWS, WS, and WMAT), such decisions are best shaped through participation by the full spectrum of stakeholders, including the counties.
34. **Comment:** Does the IFT take or make opportunities to meet with ranchers and community leaders, or are these contacts avoided due to fear of difficult conversations? **Response:** IFT members converse with ranchers routinely while engaged in on-the-ground wolf management. They also meet with ranchers and community leaders when planning releases, translocations, or participating in AMOC/AMWG meetings. Such meetings are not avoided due to fear of anything. During the 5-Year Review, AMOC determined the level of interaction between its members and members of the community is not sufficient, and will seek to increase face-to-face communication through the new IFT outreach position and other avenues.
35. **Comment:** Why do the numbers of wolves in the wild necessary to declare the program a success keep changing? **Response:** A Recovery Plan for the Mexican wolf was developed in 1982 (USFWS 1982). Its primary goals were to maintain a captive breeding

program and to re-establish a self-sustaining wild population of Mexican wolves. When the plan was developed, there was considerable uncertainty whether recovery and ultimately delisting of the Mexican wolf was feasible because it was unknown if captive breeding efforts would be successful. Therefore, in lieu of formal downlisting/delisting criteria, the plan included a preliminary goal to establish and maintain a population of at least 100 wild Mexican wolves. This has served as an interim goal for Mexican wolf reintroduction in the BRWRA. Thus, the number of wolves (i.e. “at least 100”) has not changed. In response to the April 2003 gray wolf reclassification, USFWS convened a Recovery Team to develop a Recovery Plan for the Southwestern Gray Wolf Distinct Population Segment (an area that included Colorado and Utah south of I-70, NM and AZ, western portions of Oklahoma and Texas, and Mexico). This Plan would supersede the 1982 Mexican Wolf Recovery Plan. The Team met quarterly through 2003-2004, but was put on hold in 2005 due to litigation (*Defenders of Wildlife v. Norton – “Oregon case”*). The Team will reconvene when USFWS has publicly announced whether it will appeal the court decision. The Team had not yet developed draft recovery criteria when it was put on hold, but had recognized that multiple wolf populations would be needed to reach recovery. That is, reintroduction and/or translocation outside the BRWRA would be necessary for recovery. Therefore, the interim goal of at least 100 Mexican wolves may be revised in the future, as the best available science is used in the new recovery planning effort to develop legally sufficient recovery criteria.

36. **Comment:** Are you aware there are uncollared wolves in the San Mateos? **Response:** Two wolves, a male and a female, were located in the San Mateo Mountains NM (outside the reintroduction area) in fall 2004. The male wolf lost its collar due to a malfunction, and was uncollared until being recaptured in spring 2005. The pair of wolves was relocated to AZ, where they remain today. While these wolves were in the San Mateos, there were unconfirmed reports of uncollared wolves with this pair. No uncollared wolves (except the male with the dropped collar) were confirmed in the area through observations or trapping, and there is currently no indication of any wolves remaining in the San Mateos. However, it is possible that other uncollared wolves remained in the San Mateos following trapping and relocation of the pair, or that additional wolves have dispersed to the San Mateos since that time. Observations of wolves in the San Mateo Mountains should be reported to the IFT for evaluation and follow-up.
37. **Comment:** With all the problems regarding livestock depredations and wolf/human encounters, why isn't the program scheduled for termination? **Response:** Conservation of the Mexican wolf is required by the ESA. Mexican wolf program data to date suggests that livestock depredations are within the projections of the FEIS. While the Socioeconomic Component acknowledges that most significant impacts of Mexican wolf reintroduction have been to ranchers, it also states regional impacts are <1% of livestock cash receipts. Regarding wolf/human encounters, while Mexican wolves do occasionally come into proximity of humans (primarily when dogs are present, although this is not always the case), there have been no confirmed Mexican wolf attacks on humans.

38. **Comment:** Why can't the agencies develop a reliable estimate of the actual number of wolves in the wild? **Response:** Several possible methods exist for developing either population indices or population estimates of the number of wolves in the wild. Territory mapping with telemetry is the most commonly used method to develop a minimum population count (Kunkel et al. 2005). This method is used by managers and researchers in Michigan, Quebec, Minnesota, Yellowstone National Park, Yukon Charley National Park, Northwest Territories, Glacier National Park, British Columbia, Alaska Department of Fish and Game, Kenai National Wildlife Refuge, and Wisconsin (Kunkel et al. 2005). This is also the method that the Mexican wolf project uses for population counts. The primary drawback to this method is that it is costly and requires trapping and radio monitoring of individual animals. However, early in the recovery process, the information gained using this method is important because of the small number of wolves and the need for accurate estimates of population decline or increase (Kunkel et al. 2005). These data are also generally considered the baseline from which other population estimates are derived and compared. One other recently developed method suggests that DNA analysis of scat could be used for mark-recapture methodology of population estimates and/or minimum count estimates (Kohn et al. 1999). However, this method requires equal defecation rates among sex and age classes (an assumption that may not be true for wolves [Lucchini et al. 2002]), and also has some limitations (e.g. degraded DNA samples and expense). Nevertheless, DNA analysis of scats for population estimates is being discussed and considered by the Mexican wolf project and may ultimately provide accurate population estimates with small confidence intervals (Khon et al. 1999).
39. **Comment:** Are IFT personnel available for contact by ranchers and the general public at any time? **Response:** IFT personnel are operating out of the Alpine Field Office seven days a week and are available for contact by ranchers and the general public toll free either through 1-888-459-9653. If there is no answer, the public can leave a message that will be returned at the earliest possible time. Depredation or public safety issues can also be reported to the AGFD hotline at 1-800-325-0700 if there is no answer at the previous number.
40. **Comment:** Why doesn't AMOC spend time in the field with ranchers? **Response:** To date, AMOC has been primarily focused on establishing a solid administrative foundation for the Reintroduction Project, including (among other things) regular interagency and public meetings, SOPs, a 5-Year Review, and expanded resources for the IFT (more staff, more funding, a common office, adequate equipment, etc.). In addition, most AMOC members have responsibilities within their agencies in addition to the wolf program. Unfortunately, these factors severely limit our ability to spend extensive time in the field with members of the public. We have made one field trip thus far, to visit several AZ ranches where wolf problems have occurred, but the logistical aspects of such endeavors preclude our ability to conduct visits frequently. However, on an individual basis, we are very receptive to invitations from any individual or group that might help us better understand, communicate, and adaptively manage for the issues involved in wolf reintroduction. In fact, several individual AMOC members have made trips to the field to visit with ranchers and other members of the public.

41. **Comment:** How does the money spent to date on wolf recovery compare with EIS projections? **Response:** Average annual costs to AMOC agencies have been approximately \$545,000/year (1982-2004). The FEIS (USFWS 1996; Appendix B-1) estimated an annual estimated management cost of between \$546,600/year from 1997-2001 and \$501,600/year from 2002-2010.
42. **Comment:** Who do we report to with information on wolf sightings? **Response:** The administrative site for the IFT is in Alpine AZ. The phone numbers are 888-459-9653 (toll free) or 928-339-4329.
43. **Comment:** What can be done to quell the activities of extreme wolf advocates? **Response:** Such activities are subject to regulation by Federal, State, Tribal and local laws and regulations, except as protected by constitutional rights (e.g. freedom of speech). Wolf advocates have not appreciably interfered with on-the-ground management of Mexican wolves. In one instance, a few wolf advocates showed up in an area where a trapping-and-removal effort was ongoing. They were contacted in the field by members of the IFT, and the situation was resolved without incident.
44. **Comment:** How much revenue is lost due to game taken by wolves? **Response:** The Mexican wolf FEIS estimated an annual hunter expenditure loss of \$579,100-\$1,079,100 and an annual hunting value loss of \$716,800-\$1,336,600. However, to date there has been no detectable change in hunting practices due to the Mexican wolf and lost revenues are likely negligible. See also the Socioeconomic Component.
45. **Comment:** If loss of game doesn't affect us, then why is it affecting Montana and Wyoming? **Response:** Management of the Yellowstone northern range elk herd (which is found along the northern border of the national park and the Wyoming/Montana State lines) has been complex and controversial. Elk numbers in the Yellowstone northern range elk herd reached a low of 3,000-4,000 in the mid-1960s. At that time, removals of elk for the purpose of population reduction were terminated. The elk population responded, and grew to over 12,000 animals by the mid-1970s. Late season elk hunts were initiated to reduce elk populations and maintain elk numbers within the perceived ecological carrying capacity. Elk populations were reduced following the implementation of these hunts, and have since fluctuated from 9,000-19,000 individuals. In the mid-1990s, wolves were reintroduced to Yellowstone, a severe snow pack in 1997 resulted in a winter kill of elk, followed by a series of drought years shortly after. These factors led to an average 6% decline in the elk population over a 10-year period beginning in the mid-1990s. The current population estimate for the Yellowstone northern range herd is 9,000-12,000 animals, well within the historic range of elk populations in the area. Elk may have undergone behavioral changes in response to the presence of wolves, but numerical changes in elk populations and associated hunting opportunities cannot be attributed to wolves alone. Research in the Greater Yellowstone Area has indicated that presence of wolves was not a variable that explained differences in the number of elk

harvested, and that wolf presence was not associated with areas where cow elk harvest was below harvest objectives (Haney and Lawrence 2004).

46. **Comment:** What are the statistics on private lands versus public lands? **Response:** The BRWRA consists of 96% public land (USFS), approximately 4% private land, and small amounts of State and National Park Service land (USFWS 1996). However, most of the areas surrounding the BRWRA consist of a mixture of private land, State land, BLM land, and 2 Native American Reservations. We examined 5995 aerial locations of wolves from 1998-2004 and determined the land ownership of these locations. The majority of the locations occurred within general USFS administered land (52.6%) or USFS Wilderness Areas (23.7%). The remainder occurred on Indian Reservations (19.1%), private (2.4%), State trust (1.7%), and BLM (0.5%). During the same period, there were 43 confirmed or probable depredations by Mexican wolves on livestock (cattle, horses, and sheep that were either killed or injured). These depredations occurred on general USFS administered land (57.5%), private (25.5%), and Indian Reservations (17.0%). In addition, 13 dog injuries/fatalities have been confirmed or were probably caused by Mexican wolves during 1998-2004. These incidents occurred on general USFS administered land (five injuries [38.5%]), USFS Wilderness Area (four injuries [30.75%]), and private land (two killed, two injured [30.75%]). In addition from 1998-2004, Mexican wolves were involved in 31 incidents of nuisance behavior toward humans that did not involve an injury to a dog. These incidents occurred on general USFS administered land (54.8%), private (38.7%) and Indian Reservations (6.5%).

## **I. Standard Operating Procedures**

### General

1. **Comment:** Isn't having set rules as laid out in the SOPs contradictory to the concept of Adaptive Management? **Response:** SOPs are entirely consistent with adaptive management if they are revised as new information becomes available, including information gained as a result of implementation of the procedures. Moreover, the Reintroduction Project's SOPs provide sidebars within which Project personnel can choose from a variety of alternatives so they can ensure that the management action is appropriate to the need. This approach is fundamental to adaptive management: plan, implement, evaluate, and revise the plan. SOPs are nothing more or less than plans for how to handle certain issues, situations, etc. Recognition of the need to change them over time, as we learn from experience, is precisely the reason we treat SOPs as living documents rather than rules set in concrete regardless of their effectiveness.
2. **Comment:** Why doesn't the Outreach SOP include Defenders' e program approach and various preventative techniques? **Response:** SOP 3.0: Outreach focuses on mechanisms and approaches for public outreach and education. It does not provide detail regarding the content of particular outreach methods or activities. Thus, Defenders' compensation program is not mentioned, nor are specific techniques by which to prevent, or at least reduce, likelihood of, depredation. However, outreach presentations made by Project

personnel always provide information about the compensation program, including providing copies of any materials provided by Defenders, and they address topics such as techniques for reducing the likelihood of wolf depredation.

#### SOP 13.0: Control of Mexican Wolves

3. **Comment:** If three strikes and you're out, in terms of livestock depredation, is the rule, why is the slate wiped clean on an offending wolf after a year with no confirmed depredations? **Response:** Resolution of wolf conflicts with livestock can be achieved through management of the specific situation, not just the management of the offending wolf. More than half the Mexican wolves that have been translocated following depredations successfully bred and produced pups in the wild following translocation. The success rate for wolves translocated following their involvement in depredation was double the success rate for wolves released directly from captivity. This indicates that relocating depredating wolves to a different setting may allow them to contribute to successful wolf reintroduction if wolf behavior or situations can be modified before a "third strike" occurs. A one-year period without any depredation events provides a strong indication that the situation has been effectively resolved.
4. **Comment:** Why doesn't SOP 13.0 have a provision in it, or discuss if a human is killed by a wolf? **Response:** Human safety issues are covered in the Final Rule, thus eliminating the need to re-address in SOP 13.0. The Final Rule for this nonessential experimental reintroduction states that a Mexican wolf may be taken in self defense or in the defense of others. In addition, if USFWS or an authorized agency determines that a wolf presents a threat to human life or safety, USFWS or an authorized agency may kill it, capture and euthanize it, or place it in captivity.
5. **Comment:** The Mexican wolf reintroduction program is being sabotaged by pulling the wolf out for one year and then putting the same animal(s) back in the same place where they committed their so-called crime. **Response:** Deliberately holding a wolf or wolves in captivity for one year after they have been removed from the wild (for whatever reason, e.g. nuisance or problem issues, leaving the Blue Range Wolf Recovery Area, injury) is not a standard procedure. Typically, if a wolf is eligible for re-release into the wild, and there is an approved release site without other wolves present (some exceptions to this may occur, such as when the objective is to pair a wolf held in captivity with a free-ranging lone wolf), then the goal is to return the animal(s) to the wild as soon as practical. However, wolves are occasionally held in captivity for longer periods for a variety of reasons, including: a) lack of availability of a suitable release site; b) pair bonding and breeding of two genetically desirable animals; c) allowing a late-term female to whelp and raise her pups until they are 8-10 weeks of age; d) veterinary care; and e) retirement from the reintroduction effort or from the recovery program. Wolves that have been pulled from the wild may be returned to an area at or near where they were originally removed, if they meet criteria outlined in various SOPs (i.e. SOP 5.0: Initial Wolf Releases, SOP 6.0: Wolf Translocations, SOP 13.0: Control of Mexican Wolves).

Finally, wolves have excellent homing instincts, and the ability to return to a former home range even after being re-released many miles distant.

6. **Comment:** Why was the Aspen Pack re-released before a year was up since when they're removed from the wild for cause they're supposed to be kept in captivity for a year. **Response:** There is no requirement within the reintroduction program to hold a wolf or wolves in captivity for a year, following removal from the wild for cause. The only reference to one year made in Draft SOP13.0 is that "a wolf (or wolves) that has (or have) been involved in fewer than 3 depredation incidents will, if 365 days have passed since the last incident, be considered a new wolf, with no strikes against it."
7. **Comment:** A wolf's record (i.e. livestock depredations) should follow the animal throughout its life. **Response:** AMOC and the IFT have developed a set of SOPs to help guide the Reintroduction Project. The proposed scenarios for management of problem wolves are outlined in SOP 13.0. As stated in SOP 13.0, a wolf with less than 3 depredations that has not depredated in over a year is assumed to have no depredations. AMOC and the IFT consider management intervention to have been successful if the wolf have not depredated on livestock for more than one year since the initial offense(s).
8. **Comment:** Wolves that commit depredations on livestock should not be killed, but instead should be captured alive in order to conserve their genetics. **Response:** Wolves that are chosen for the Reintroduction Project must fit several criteria, one being that they are not genetically important to the captive population (i.e. an experimental nonessential population). Under the Final "nonessential experimental population" Rule for the Project, wolves released to the wild are considered expendable to the Recovery Program. AMOC SOP 13.0 carefully defines the progression of actions to be taken if a wolf or wolves begin to become a nuisance or begin to depredate. Attempts will be made to live capture such animals; however, if certain circumstances are met, permanent removal (which includes lethal control as an option) may be used. Under a permanent removal order, a wolf may still be captured alive, if live capture occurs before an opportunity for lethal control, or if live capture is the most expeditious approach to removing the animal from the wild. However, by law (i.e. the Final Rule), the released wild wolves are redundant to and not needed in the captive program (i.e. returning them to captivity would not benefit the Recovery Program/Reintroduction Project or "conserve their genetics").
9. **Comment:** Why are ranchers responsible for, or have any voice in removal of wolves? **Response:** SOP 13.0 was developed to list criteria for determining the status of nuisance and problem wolves, and to provide guidelines to the IFT for conducting wolf control actions. Management responses to nuisance and problem wolf issues are implemented in a stepwise fashion, and are a function of the number and severity of incidences. Ranchers and property owners in and adjacent to the BRWRA are arguably the most immediately and directly affected when a nuisance or problem wolf issue arises. Rancher comments are thus given the same fair and equal consideration as any other interest (pro-, neutral, and anti- wolf) in terms of crafting the final version of SOP 13.0 and determining when and how wolf removal will occur. See also Response to Comment C.12.

10. **Comment:** How sure are investigators that a wolf actually preyed on a cow? **Response:** WS IFT members are professional wildlife damage management experts in the field of predator depredations. Their investigations to determine which species caused the depredation consider the following criteria, when relevant information is present (see Roy and Dorrance 1976 for complete guidelines):
- i. Subcutaneous hemorrhaging associated with wounds on the carcass.
  - ii. Additional morphological evidence associated with the carcass.
  - iii. Size of the canine spread on the hide.
  - iv. Attack points on the carcass (i.e. wolves and coyotes typically attack the hamstring and armpit area, whereas lions generally attack the back of the neck).
  - v. Size and extent of bones chewed by the predator.
  - vi. Tracks/scat/hair in the area.
  - vii. Disturbed vegetation and terrain in the area, with areas of blood on the ground.
  - viii. Any additional evidence around the site (e.g. poisonous plants, skinned carcass).
  - ix. Presence or history of wolves or other predators in the immediate area.
  - x. Witness accounts.

Cause of death is classified as follows, based on evidence at the site: confirmed, probable, possible, or not a wolf kill. Determination and classification of cause of death does not need to be made at the initial scene of investigation, but should be completed as soon as possible after the on-site investigation has been completed. The extent to which an absolute (definitive) determination of cause of death can be made depends on the available evidence.

11. **Comment:** Can a section be included in SOP 13 that identifies when wolves locate into new areas that ranchers are notified and informed of proactive solutions to living with wolves (e.g. Defender of Wildlife's proactive program)? **Response:** This information will be included in SOP 3.0: Outreach. See also responses to H.17 and H.30.
12. **Comment:** Can SOP 13 be amended to provide incentives to ranchers who are good stewards (e.g. work actively to remove carcasses from their allotments, employ range riders)? **Response:** In lieu of adding incentives information to SOP 13.0, AMOC is considering developing another SOP or a companion document to focus on "living in wolf country." The intent would be to provide information on incentive programs that already exist, including those that can provide funding to ranchers to underwrite the costs of at least some of the measures by which wolf depredation might be reduced, or prevented.
13. **Comment:** Can SOP 13 be amended such that there is no action taken against a livestock-depredating wolf on a rancher's allotment unless that rancher is being proactive to minimize wolf/livestock conflicts? **Response:** The Reintroduction Project is authorized under a nonessential experimental population rule (i.e. the Final Rule) that

reflects a commitment to integrate wolf reintroduction and recovery into existing multiple-uses of public lands and to minimize conflicts on private lands. The Final Rule is not structured, nor is the Reintroduction Project empowered or administered, to force changes in public or private grazing practices to accommodate presence of wolves. Thus, the 5-Year Review and ongoing adaptive management of the Project will continue to focus on finding and implementing incentives for voluntary actions by ranchers and other stakeholders that would help accommodate presence of wolves by reducing conflicts such as livestock depredation. Clearly, there is a need for more effective and better-funded incentives, and for more effective compensation for losses incurred by private property owners. As progress is made in these areas, SOP 13.0 will be revised to reflect the new information and opportunities. See also Response to Comment I.12.

14. **Comment:** Instead of being killed when found guilty of excessive livestock depredations (i.e. 3 strikes and you're out), can they be captured and homes found for them? **Response:** SOP 13.0 charts the progression of actions taken if a wolf or wolves begin to cause nuisance problems or depredate. Attempts are made to live capture these animals; however, if certain circumstances are met, permanent removal (which includes lethal control as an option) orders may be given. Efforts to capture the offending wolf will continue even if lethal control measures are implemented. If the animal is live-captured, it may be placed in one of the 44 captive facilities in the USA and Mexico that participate in the Mexican Wolf SSP.
15. **Comment:** Having WS determine if a wolf killed a cow on Reservation lands is a conflict of interest. **Response:** The United States has a unique legal relationship with Indian Tribal governments as set forth in the Constitution of the United States, treaties, statutes, Executive Orders, and court decisions. Since the formation of the Union, the United States has recognized Indian tribes as domestic dependent nations under its protection. The Federal Government has enacted numerous statutes and promulgated many regulations that establish and define a trust relationship with Indian tribes. WS has the Federal responsibility under the trust relationship to provide Federal leadership in the field of wildlife damage management, which includes wolf depredations.
16. **Comment:** There is a delayed response by WS when a report of a possible livestock depredation on Tribal lands is made, such that the evidence of the attack is often gone. **Response:** Since 1998, WS has responded to 16 reported cases of potential wolf depredations on Tribal lands (unpublished data). The time between when WS received the report and when they arrived on site varied from the same day of the report to two days after the report was received. WS had six same-day responses, nine next-day response times and one two-day response time. There is no evidence supporting the contention that delayed response is or has been a problem.
17. **Comment:** Can USFWS provide more infrastructure to run the program, such that the SSCAT can have someone to work with that they're more comfortable with? **Response:** The nature and extent of the asserted discomfort cannot be determined from the comment offered. Currently, the USFWS Mexican Wolf Field Projects Coordinator, who is a

member of the IFT, is USFWS liaison with SCAT on wolf control issues. The Coordinator works directly with the Tribal wildlife department to conduct management actions (e.g. radiotracking, hazing, trapping). USFWS provides funding to the Tribal wildlife department each year to offset the cost of equipment and personnel for Tribal involvement in the wolf program. Reports of possible wolf depredation on Tribal lands are investigated by WS, in accordance with Tribal guidance and SOP 13.0: Control of Mexican Wolves. USFWS is working with SCAT and WS to train Tribal game officers in investigative procedures, which would in turn allow SCAT to assume more responsibility in conducting depredation investigations in the future. In the meantime, USFWS has hired a SCAT member, permanently stationed in San Carlos, who divides his time between Mexican wolf and fisheries issues.

18. **Comment:** The practice of lethal control of wolves that have been involved in excessive livestock killing (three strikes and you're out) is not working. **Response:** The orders for wolf removal are for permanent removal from the wild. Lethal control is only one of the many tools available to remove wolves from the wild. To date, three Mexican wolves have been lethally removed under permanent removal orders. Livestock depredation is inevitable when free-ranging wolves occur, but depredation is being managed by permanent removal (including lethal take).
19. **Comment:** What is the SOP for removal of denning females from the wild? **Response:** SOP 13.0: Control of Mexican Wolves is currently in draft form. Public comment in regard to this issue is being evaluated by AMOC. The current draft does not differentiate between denning females and any other segment of the wolf population. This issue will be explored further between now and the period in 2006 when denning recommences.
20. **Comment:** Why isn't there a one strike and you're out policy? **Response:** The Reintroduction Project is obligated to address (provide relief for) depredation issues, but it is also legally compelled to pursue recovery, which requires growth in the wild wolf population. Conflicts between wild wolves and livestock are inevitable. However, resolution of wolf conflicts with livestock can be achieved through management of the specific situation, not just management of the offending wolf. More than half the Mexican wolves that have been translocated following depredations successfully bred and produced pups in the wild following translocation. The success rate for wolves translocated following their involvement in depredation was twice the success rate for wolves released directly from captivity. This indicates that depredating wolves relocated to a different setting may significantly contribute to successful wolf reintroduction. Interventions such as hazing, fladry, movement of wolves or livestock, and removal of individual pack members can be employed to increase the probability of successfully "rehabilitating" wolves that have been involved in a depredation situation.
21. **Comment:** Why are problem wolves translocated and not put in permanent captivity? **Response:** Translocation of problem (and other) wolves enables the Reintroduction Project to continue progress toward its population goal, while providing relief for local situations. See also responses to comments I.3 and I.20.

22. **Comment:** Why doesn't the program incorporate more aversive conditioning of wolves and cattle? **Response:** Aversive conditioning, such as hazing wolves out of an area (i.e. livestock pasture) with rubber bullets, cracker shells, and radio- activated guard boxes (a device that emits loud noises when a collared wolf is in close vicinity of the box), is applied to free-ranging Mexican wolves whenever appropriate in efforts to prevent livestock, human, or dog interactions (Breck et al. 2002, Shivik and Martin 2001, Shivik et al. 2003). It has been used successfully on some occasions, but is most effective on a small-scale, such as deterring specific wolves from calving pastures and residential areas. It is less useful in larger-scale applications, such as keeping wolves away from entire grazing allotments. Other types of aversive conditioning, such as taste aversion to prevent wolves from killing livestock, have been the subject of many research projects in the past, with little, if any, demonstrated effectiveness. More recently, research in Wisconsin evaluated the use of shock collars to assess the effectiveness of reducing livestock depredations which resulted in some success (Schultz et al. 2005). However, this type of aversive conditioning appears to have limited use and may not be practical on a large-scale basis, especially in the Southwest. Based on this, it does not seem prudent to expend resources and efforts attempting to aversively condition wolves using either of these techniques at this time.
23. **Comment:** Why is there lethal control prior to achievement of a fully recovered population? **Response:** The Reintroduction Project is authorized by a nonessential population rule under Section 10(j) of the ESA. By Federal law, the "nonessential" designation means that wolves released to the wild within the experimental population boundary are not essential to recovery. That is, even if all of the Mexican wolves in the wild died, extinction would not occur because there are now sufficient Mexican wolves in captivity. The Final Rule recognized that, as the wild population grows toward levels that contribute to rangewide recovery, situations will occur that require removal of individuals or even entire packs for the overall benefit of the Recovery Program. Although lethal control of wolves may seem contradictory to recovery, active management of wolves released to the wild is a critical component of recovery. Lethal control, one of the tools for permanent removal, is simply the final alternative in a hierarchy of management alternatives that must be considered when a problem occurs in the field.
24. **Comment:** How many wolf lethal take orders have been issued? **Response:** Since the Mexican wolf program's inception, five permanent removal (which includes lethal take as an option) orders have been issued for eight wolves, including: 1) two un-collared wolves from the Francisco Pack, which were never lethally controlled because they could not be located; 2) Wolf F592 of the Sycamore Pack (shot 05-27-03); 3) Wolf M574 of the Saddle Pack (shot 07-11-04); 4) Wolves M904, M919, and F511 of the Francisco Pack were removed by live trapping; and 5) Wolf M729 of the Ring Pack (shot 06-26-05).

## **J. Livestock Depredations**

1. **Comment:** The Mexican wolf EIS is based on bad science since it used livestock depredation estimates for northern wolves. **Response:** The EIS based predictions of what *might* occur based on the best available science. Since Mexican wolves were extirpated from the southwestern USA and likely Mexico before rigorous scientific studies could be conducted, the best available science was that from extant wolf populations in the northern USA and Canada. The EIS specifically recognized grazing patterns were different in the southwestern USA compared to areas from which depredation data had been collected. It tried to account for this by using a multiplier (see pages 4-7 and 4-8 of the EIS; USFWS 1996). The EIS prediction of 1-34 confirmed cattle depredations/year by a population of 100 wolves is consistent with EIS projections. The Socioeconomic Component models three ranges of depredation. See also Response to Comment J.19.
2. **Comment:** You need to change the forensic confirmation approach for wolves depredating on livestock. **Response:** Research is being conducted by the USDA-APHIS WS National Wildlife Research Center to improve forensic diagnostic capabilities. The research is focusing on genetic markers in predator saliva as a future diagnostic tool to identify the species of predator and potentially the individual predator causing the depredation. New tools such as the aforementioned will be incorporated as funding becomes available and the techniques are practicable for field use.
3. **Comment:** Wolf depredation investigations are biased in the way they're conducted. Can an independent third party, such as the County, be used to investigate potential kills? **Response:** Investigators are not biased for or against the Mexican wolf. Currently, there are 162 potential Mexican wolf depredation reports (see Technical Component). Of the 162 reports, 96 attribute the cause of death or injury to Mexican wolves as possible, probable or confirmed. Investigated reports using the best available evidence have also attributed deaths or injuries to accidents, lightning, noxious weeds, coyotes, black bears, mountain lions, feral dogs, hybrid animals (not Mexican wolf hybrids), birthing, and unknown causes. The Final Rule states that "Depredation means the confirmed killing or wounding of lawfully present domestic livestock by one or more wolves. The U.S. Fish and Wildlife Service (Service), Wildlife Services (WS), or other Service-authorized agencies will confirm cases of wolf depredation on domestic livestock." Further guidance is provided in SOP 11.0, which affirms that AMOC intent is for the IFT to respond to all wolf depredation reports by accessing the incident site within 24 hours, and for WS IFT members to be the primary investigators for such incidents. Thus, other IFT members contacted initially will make every effort to reach a WS IFT member to initiate follow-up. However, other IFT members will initiate follow-up as necessary, if a WS employee is not immediately available, and may assist WS at the scene or as requested or is otherwise appropriate.
4. **Comment:** Ranchers are being told one thing in the field by wolf depredation investigators and then the findings are being changed once they get back to the office. **Response:** Ranchers are often on-site during an investigation of a potential Mexican wolf depredation. Discussions may occur between the ranchers and multiple IFT members. All information discussed is based on preliminary findings. The final call is made after a

review of all available evidence. Ranchers should refer to the final printed report for the final determination regarding the potential Mexican wolf depredation.

5. **Comment:** There are only 1-2 people in each State checking for wolf kills and they are not finding them all. **Response:** WS responds to potential Mexican wolf depredations reported by livestock owners, the public, and the IFT. WS does not have the resources to commit all of their time to look for carcasses, nor do they have any authority or Congressional direction to do so. Congress has provided annual funding of \$150,000 for wolf depredation work in AZ and NM, which amounted to \$59,209 per State (after overhead) at the field level. The funding provided partially covers the two primary individuals conducting wolf depredation work. In addition to verifying wolf kills, the funding also covers required training and wolf damage management.
6. **Comment:** Requiring the removal of livestock carcasses from public lands is not practical. **Response:** We understand the difficulty in locating livestock carcasses and removing or rendering them unpalatable. There are no laws, regulations, or policies that would allow USFS or BLM to make these practices mandatory or enforce such a program.
7. **Comment:** What can be done to improve husbandry practices, including livestock carcass removal and/or treatment (e.g. liming, burning, burial) to keep wolves from scavenging on them? **Response:** Locating livestock carcasses on the large and typically rugged allotment pastures is difficult. Some ranchers remove and/or treat livestock carcasses whenever possible, but this is a voluntary practice and not enforceable under current law, regulation, or policy. See also Response to Comment J.6. There are numerous things that can be done to lessen the potential for livestock depredations. Several methods have been used and studied, including use of guard dogs, improved husbandry practices, electric fences, carcass removal, fladry, and others. Many of these methods show promise in reducing livestock depredations under various circumstances and situations, but none has been shown to consistently prevent depredations. Furthermore, everyone must realize that these practices take time money, along with a high level of cooperation, and therefore they are not inexpensive or necessarily easy. For the most part these techniques are good in a localized area for a relatively short period of time.
8. **Comment:** Reintroduction of the wolf causes restrictions on the use of M-44 for other predators which further compounds the livestock depredation problem. **Response:** The Final Rule states that “the U.S. Department of Agriculture, Animal and Plant Health Inspection Service, Wildlife Services (WS) division will discontinue use of M-44's and choking-type snares in “occupied Mexican wolf range” (see definition in section 17.84(k)(15)).” USFWS Biological Opinion issued to WS allows for M-44 use in the recovery area outside “occupied habitat.” However, WS has chosen to be even more restrictive. The Final Rule does allow “selective lethal control of coyotes by traps, calling and shooting, and aerial shooting, as well as a variety of non-lethal techniques.”

Furthermore, in NM, NMDA restricts use of M-44 by private applicators in areas of Mexican wolf habitat.

9. **Comment:** Livestock die all the time for many reasons other than wolves. **Response:** Livestock operators provide an annual end of the year report to the Forest Service. They have traditionally reported a wide variety of “causes of death” including accidents, disease, predation, and others.
10. **Comment:** Since most cattle wear ear tags, can a device that emits a high level frequency be attached to these ear tags and used to drive away wolves? **Response:** We are not aware of this technique being used; however, several non-lethal methods to prevent or deter livestock predation by wolves have been tried including: guard animals, electric fences, fladry, sirens and strobe lights, improved animal husbandry practices, wolf translocations or lethal control, electronic training collars, sterilization, and taste aversion methods. Many of these methods show promise in reducing livestock depredations under various circumstances and situations, but none has been shown to consistently prevent depredations. These techniques seem to be most effective in a localized area for a relatively short period of time.
11. **Comment:** Ranchers should leave the horns on cows to protect themselves and their calves. **Response:** Many ranchers in the southwest do leave horns on their cattle, however it is unknown if they provide a significant deterrent.
12. **Comment:** How effectively are mechanical devices such as strobe lights, noise boxes, and radio-activated guard boxes being used to keep wolves from depredating on livestock? **Response:** Sirens and strobe lights (radio-activated guard box) may be placed around a pasture and set to act at regular or irregular intervals or when a radio-collared wolf is in the area. They may reduce depredations temporarily by scaring the wolves from the area, but this is not always affective and wolves can become habituated to these deterrents and eventually ignore them (Breck et al. 2002, Breck and Meier 2004, International Wolf Center 2005, Shivik and Martin 2001, Shivik et al. 2003). Several other wolf aversion methods have been used and studied; however, none have been shown to consistently prevent depredations under all conditions and situations. Typically these techniques are most effective in a localized area for a relatively short period of time.
13. **Comment:** The Federal Register pertaining to wolves in the northern Rocky Mountains prohibits control activities (e.g. captures, removals, lethal control?) where there are attractants (i.e. livestock carcasses left on the land); why is the Blue Range Wolf Recovery Area different? **Response:** The northern Rocky Mountain nonessential experimental rule states “The Service and authorized agencies of the Service would use the following conditions and criteria to determine the status of problem wolves within the nonessential experimental population area: (2) No evidence of artificial or intentional feeding of wolves can be present. Improperly disposed livestock carcasses located in the area of depredation will be considered attractants. On Federal lands, removal or a

decision on the use of such attractants must accompany any control action. If livestock carrion or carcasses are not being used as bait for an authorized control action on Federal lands, it must be removed or otherwise disposed of so that they will not attract wolves” (USFWS 1994). The nonessential experimental rule for the Mexican wolf does not contain similar wording within it, but SOP 13.0 states: “When feasible, removal or elimination (e.g. by burial or chemical treatment) of attractants, such as visceral remains or carcasses of livestock or wildlife, will accompany control action(s) (per SOP #11).” Overall, the first point is that the northern Rocky Mountain nonessential experimental rule does not prohibit control actions where there are attractants, but instead requires the agency to make a decision on the removal of attractants or use of such attractants to accompany the control action. In this way, the language in SOP 13.0 is similar to the language in the northern Rocky Mountain nonessential experimental rule.

14. **Comment:** Does liming a livestock carcass (in terms of making it unpalatable for a wolf) kill the soil? **Response:** According to USFS, soils scientists adding lime to soils in the Southwest improves soil productivity.
15. **Comment:** It seems depredation rates are increasing, what can be done to reverse this trend? **Response:** The confirmed cattle killed per 100 wolves per year has been 0, 33, 5, 22, 27, 5, 17, and 31 for 1998, 1999, 2000, 2001, 2002, 2003, 2004, and an estimate for 2005 based on current figures, respectively (Technical Component; see also AGFD et al. 2005). Thus, although the absolute number of confirmed cattle kills (18) is the highest in the project’s history for a given year, the depredation *rate* is not the highest because the estimated minimum population is currently the highest in the project’s history (51-63 wolves [average 57]). In response to depredations, the wolf project has removed seven adult wolves and four pups. These removals should help reduce the depredation rate. The past data does not show a clear trend of increase or decrease in depredation rates. Rather, the data tends to indicate some high depredation rate years (1999, 2002, and 2005), some moderate depredation rate years (2001 and 2004), and some low depredation rate years (1998, 2000, and 2003), perhaps in a cyclical fashion related to the removal of problem wolves following particularly bad depredation years, and subsequent years having fewer depredations.
16. **Comment:** How do you determine which wolf killed a head of livestock, particularly if the wolf or wolves doesn’t have a collar? **Response:** See response to I.10.
17. **Comment:** What is the percentage of wolf livestock kills that can be determined? **Response:** Not all wolf livestock kills are found or reported to the IFT for investigation. Currently, there are 162 potential Mexican wolf depredation reports (see Technical Component). Of the 162 reports, 96 (59%) attribute cause of death or injury to Mexican wolves as possible, probable, or confirmed.
18. **Comment:** Is it a conflict of interest having AMOC and the IFT verifying livestock depredations? **Response:** WS is the Federal agency responsible for providing Federal leadership in mitigating human wildlife conflicts. WS has been mitigating human wildlife

conflicts since 1885. WS signed the 2003 MOU for managing the experimental nonessential population of Mexican wolves in AZ and NM (see Appendix 1). As a signatory on the MOU, WS is an active Lead Agencies in AMOC and participates as field members of the IFT. WS is designated as the Lead Agency on wolf depredations.

19. **Comment:** What are the actual cattle kill numbers? **Response:** The actual number of livestock killed by Mexican wolves is impossible to determine since not all livestock carcasses are found and/or reported, and because sometimes sufficient evidence no longer exists to determine the cause of death. Our best available information for the numbers of cattle killed by Mexican wolves are as reported in the Technical Component; that is, 26 confirmed livestock kills, four probable kills, and 13 possible kills from 1998 through 2003. We recognize there is a large discrepancy between the number of livestock kills reported by the Mexican wolf project and numbers reported by livestock producers. However, we rely on reports verified by WS when determining actual wolf depredation numbers. To account for this discrepancy, the Socioeconomic Component presents a range of estimates of wolf depredation from 1998 to 2004. The low estimate represents the average of the agency records of confirmed kills (including records from USFWS, WS, and the Defenders compensation program). The medium estimate incorporates a multiplier from published literature that estimates unconfirmed kills in addition to confirmed kills. The high estimate reflects estimates of losses due to wolf depredation provided by ranchers. According to these estimates, wolves have killed an average of five to 33 cattle each year, or less than one percent of the estimated 34,800 cattle grazed in the Blue Range Wolf Recovery Area annually.
20. **Comment:** Can reporting livestock depredations be made mandatory? **Response:** This would require a change in the Final Rule or other Federal, State, or Tribal legislation. However, livestock owners generally benefit from reporting depredations from all causes. WS is involved in the control of all predators that depredate. As such, livestock depredations subsequently confirmed by WS (or appropriate State or Tribal agencies) may be controlled under Federal State, or Tribal laws. In addition, damages caused by wolves may be compensated by Defenders. Similarly, control and compensation for wolf depredations cannot occur if reports are not turned in.
21. **Comment:** Ranchers have inadequate resources to look for wolf kills on a daily basis. **Response:** We agree, although we also assume that ranchers managing livestock operations and holding Federal grazing permits have the resources needed to adequately monitor the status of their herds.
22. **Comment:** What is the breakdown for budgets on predator control for AZ and NM? **Response:** WS does not track funding by predator control. WS tracks funding based on groups of resources protected such as agriculture, human health and safety, natural resources, and property. Congress has provided annual funding in the amount of \$150,000 for wolf depredation work in AZ and NM which amounted to \$59,209 (after overhead) per State at the field level.

**K. Human/Wolf Interactions**

1. **Comment:** Wolves are dangerous to people and sooner or later a child will be attacked. **Response:** Although attacks by wolves on humans do occur, it is considered an extremely rare event in North America. Wolves, like any other animal, may occasionally develop some level of habituation to humans and human activity. Observations of wolves in proximity to human-created structures do not mean that wolves are likely to attack. The vast majority of wolf attacks have resulted from situations involving rabid wolves, wolves habituated to humans (such as being fed by humans at campgrounds or near settlements), or provoked wolves (e.g. wolves were beaten or attempted to be killed), and the attacks were attempts by the wolves to get away. There are no documented accounts in North America of wolves killing people (adults or children) (Linnell et al. 2002, McNay 2002). From 1998 through 2003, there were 11 documented cases of wolves approaching humans within the Blue Range Wolf Recovery Area (see Technical Component). In eight of these cases, wolves approached humans in a non-threatening manner. In three cases, wolves charged groups of people and dogs. The presence of domestic dogs may provoke wolves, and all three instances of wolf charges involved domestic dogs, as did five of the eight cases where wolves approached humans non-aggressively. The three cases of wolves charging resulted in: 1) a wolf being shot by a camper when the wolf attacked the camper's dog and due to the camper's close proximity to the attack he felt threatened (this was considered a legal action under the experimental population rule, and there were no ramifications for take under the ESA, 2) shots being fired in the air to scare away a wolf charging a camper's dog, and 3) removal of wolves by the IFT after the wolves left the area where a dog was attacked. Although threats to human safety are considered unlikely, all of the agencies participating in the Mexican wolf Reintroduction Project regard protection of human health and safety to be of paramount importance. The IFT has posted signs notifying the public of possible wolf presence throughout the reintroduction area. The participating agencies are interested in working with local interests to develop educational programs, post additional signs, and take additional measures to disseminate information and assist people in alleviating safety concerns relating to Mexican wolves. See also Response to Comment I.4.
2. **Comment:** Wolves are not a danger to children or other humans. **Response:** See response to K.1.
3. **Comment:** Why aren't wolves afraid of people? **Response:** See response to K.1.
4. **Comment:** Does the sound of little children screaming attract wolves? **Response:** We are not aware of any verifiable reports or literature (i.e. peer-reviewed, gray, or popular) that indicate the voices (e.g. talking, screaming) of small children attract wolves. McNay (2002) references a number (~six) of wolf/human child interactions, but none of these reports specify that a child's screams may have elicited the interaction. When asked this same question, Dr. David Mech, one of the world's most respected wolf experts, replied that he was not aware of any specific instances where the voices of children could be specifically tied to a wolf attack on a child. However, he also stated "...that if small

children are in an area where large predators occur, be they bears, mountain lions, bobcats, coyotes, domestic dogs, or wolves, it is only prudent, no matter how unlikely an attack, that adults maintain an extra level of vigilance” (David Mech personal communication, 5 October 2005). See also Response to Comment K.1.

5. **Comment:** Wolves are not afraid of children and there are well-documented attacks on children in Catron County. **Response:** There are no reports or documented attacks on children in Catron County. See also Response to Comment K.1 and K.4.
6. **Comment:** How do wolves make the distinction not to attack children? **Response:** See response to K.1.
7. **Comment:** Since wolves have been sighted near occupied dwellings, are children at risk of a wolf attack? **Response:** See response to K.1.
8. **Comment:** Will AMOC consider posting signs warning parents of the presence of wolves? **Response:** See response to K.1.
9. **Comment:** Isn't human life more important than a wolf? What are you going to do if a wolf kills one of our children? Do you have children? [This question was addressed directly to the Chair, who replied he has two sons.] If a wolf kills one of our children, shouldn't we be allowed to kill one of yours? [Audience discussion ensued, during which the Commenter indicated he would pursue retribution against the AMWG Chair's sons if a local child were killed by wolves.] **Response:** The Final Rule states that a person may lawfully take a Mexican wolf in self defense or in the defense of another human. In addition, if USFWS, or an authorized agency, determines that a wolf presents a threat to human life or safety, USFWS or the authorized agency may kill it, capture and euthanize it, or place it in captivity. See also Response to Comment K.1. With regard to the retribution threat, Catron County law enforcement officials present failed to address the issue overtly, so AMOC curtailed further discussion by taking a break in the proceedings, then moving to the next speaker. No further action was taken, and the incident was dismissed as an exception to the civility that has typified wolf public meetings in AZ and NM over the past 20 years.
10. **Comment:** Will AMOC develop an education program for parents in wolf country? **Response:** See response to K.1.

#### **L. Wolves in Captivity**

1. **Comment:** Why are Mexican wolves in captivity being fed carnivore logs and Alpo, both of which the primary ingredient is beef? **Response:** Mexican wolves in captivity that are candidates for release to the wild are fed three primary food items, none of which contain beef. The three food items are:
  - a) Road-killed wild animal carcasses; primarily elk and deer.

b) A specially prepared raw meat product specifically formulated for the zoo trade and referred to commonly as “carnivore logs.” The primary ingredient in carnivore logs is horsemeat. Other ingredients as stated on the label includes meat byproducts (i.e. horse organs such as the heart, lungs, and spleen), dried beet (the root vegetable) pulp, salt, D-activated animal sterol (source of vitamin D3), vitamin A supplement, vitamin B12 supplement, vitamin E supplement, menadione sodium bisulfite (source of vitamin K activity), riboflavin supplement, niacin, biotin, sodium selenite, calcium pantothenate, choline chloride, thiamine hydrochloride, pyridoxine hydrochloride, folic acid, copper oxide, cobalt carbonate, iron carbonate, manganous oxide, ethylene diamine dihydriodide, and zinc oxide.

c) A dried, pelleted food (Mazuri Exotic Canine Diet) specifically formulated for the zoo trade and referred to commonly as “kibble.” The primary meat ingredients in kibble are poultry and pork. Other ingredients as detailed on the label include ground corn, poultry byproduct meal, ground brown rice, corn gluten meal, animal fat preserved with BHA, poultry fat preserved with ethoxyquin, poultry digest, porcine meat meal, brewer’s dried yeast, dried beet (the root vegetable) pulp, ground soybean hulls, dried whey, dried egg product, flash dried blood meal, calcium carbonate, dicalcium phosphate, potassium chloride, salt, choline chloride, pyridoxine hydrochloride, menadione dimethylpyrimidinol bisulfite, DL-methionine, taurine, cholecalciferol, biotin, DL-alpha tocopheryl acetate, vitamin A acetate, inositol, folic acid, calcium pantothenate, thiamine mononitrate, ethoxyquin (a preservative), riboflavin, nicotinic acid, cyanocobalamin, manganous oxide, ferrous sulfate, cobalt carbonate, copper sulfate, zinc oxide, calcium iodate, and sodium selenite. Mexican wolves held in zoos and other cooperating facilities that will never be released to the wild may be fed additional food items, including beef products.

2. **Comment:** Road-killed wildlife used to support the Mexican wolf reintroduction program should go to income-deprived families in rural areas. **Response:** Due to food safety concerns, donation or sale of road-killed game is prohibited by U.S. Department of Health and Human Services EPA Food Code, NM Environment Department (NMED) Food Services and Food Processing Regulations, and AZ Department of Health Services (ADHS) regulations that prevent road-kill wild game from being processed for public consumption. For more information on regulations concerning wild game donations, visit the following websites:  
EPA <http://www.cfsan.fda.gov>  
NMED [http://www.nmenv.state.nm.us/fod/Food\\_Program/regulatory\\_4.html](http://www.nmenv.state.nm.us/fod/Food_Program/regulatory_4.html)  
ADHS <http://www.azdhs.gov/phs/oe/rs/pdf/fc2000.pdf>
3. **Comment:** Facilities for placing wolves in captivity are overcrowded, what about getting a grant for making more space for wolves in captivity? **Response:** The Mexican Wolf SSP actively solicits and constantly seeks new facilities to house Mexican wolves. Currently there are 44 facilities in the USA and Mexico participating in the bi-national captive breeding program. Most of these facilities apply for and receive grants to offset

the costs of providing food and care for the animals, as well as to build new enclosures to house additional wolves.

4. **Comment:** Can more money be provided to the captive breeding program for more space to house wolves? **Response:** Additional funding could be provided by private individuals or groups, and/or legislative bodies. See also Response to Comment L.3.

### **M. Recovery Planning**

1. **Comment:** The dismissal of the Mexican Wolf Recovery Team is an example of how the program is being dismantled. **Response:** The Southwestern Gray Wolf Distinct Population Segment Recovery Team has not been dismissed; rather, recent litigation caused USFWS to put the team on indefinite hold until the court decision is appealed or proposed reclassification processes take place. The Mexican Wolf Recovery Program is not being dismantled; agencies involved are still working toward recovery of the species.

### **N. 1-Year Moratorium**

1. **Comment:** The proposed 1-Year Moratorium is not conducive to the genetic health of the wolves in the wild. **Response:** The genetics of the wild population are now a reflection of breeding in the wild, as well as which (if any) captive-born/reared animals are released. The proposed moratorium states that halting releases of packs of wolves that have not previously been in the wild will allow time to assess more clearly the total number of wolves (i.e. both collared and uncollared) in the wild. A more accurate assessment of the number of wolves in the wild may result in a more accurate assessment of the genetic health of the population, which can then be considered during future management actions. Regardless, AMOC does not believe a 1-year hiatus in releases of new packs will appreciably affect the genetics of the wild population. Moreover, even if a moratorium on new releases of packs were enacted, it might be possible to include provisions for release of individual wolves as necessary to address any genetics issues and for translocations as necessary to achieve management objectives, including addressing nuisance and problem (depredation) situations. Finally, pursuant to the 1998 Final Rule and the 1998 Interagency Management Plan, management flexibility begins when the number of breeding pairs in the wild is six or higher. Thus, the proposed moratorium affirmed that it would not be enacted if the number of breeding pairs in the wild fell below this benchmark.
2. **Comment:** How does the proposed 1-Year Moratorium contribute to recovery and what is the science behind the proposal? **Response:** The concept of a moratorium on new releases of packs from captive origin stems from the premise that a transition from captive-born/reared animals to wild-born/reared animals is generally, if not always, an effective and efficient path to success. Wild-born/reared animals are typically more successful than captive-born/reared animals in surviving in the wild. In 2004, AMOC began considering whether the time had arrived to transition to reliance on wild-born/reared wolves for population growth, rather than continue new releases of captive

wolves (naive packs). Recovery is achieved when threats to the species have been lessened or alleviated such that the species is no longer threatened or endangered in all or a significant portion of its range. When a population demonstrates that it is self-sustaining (that is, able to persist in the wild in sufficient numbers in the absence of significant population augmentation by management), this may be interpreted as an indication that threats have been sufficiently alleviated. However, achieving a numeric goal is not the only consideration in recovery, nor is it the only factor relevant to consideration of a moratorium on new releases. The ability to manage the species well enough to sustain the population at recovery levels is of paramount significance. Management capability revolves around staff capacity, funding, knowledge-based management guidelines, and social acceptance. Given that significant new resources (funding, staff, equipment) were infused into the Reintroduction Project by the cooperating agencies in 2004 and 2005, a host of SOPs were in various stages of development, the wild wolf population had reached a level that seemed sufficient to ensure that it would not decline and most likely would continue to increase over the next two years, and a 5-Year Review was being conducted that might result in significant recommendation for change in the Project in 2006 et seq., public discussion of a possible moratorium on new releases in 2006 seemed timely and appropriate. Thus, the proposed moratorium was announced as a draft and discussed at a public meeting in April 2005, where it was made clear that no final decisions had been made and public comment on any and all aspects was desired. In fact, in that first public discussion, it was made clear that one element that needed particular attention was mechanisms by which genetic issues could be addressed within a moratorium, such as targeted release of single individuals into wild packs or into areas occupied by unpaired wolves. In other words, a moratorium on new releases of packs does not of itself preclude the ability to address any genetic issues in the wild population.

3. **Comment:** Because there were no releases of captive-reared wolves planned for 2005, hasn't there already been a moratorium? **Response:** The lack of releases of new packs in 2005 occurred largely due to several problems that a moratorium in 2006 would enable AMOC and the IFT to address. For example, the IFT was so occupied with managing nuisance and problem wolves in October-December 2004 that a proposal for new releases in 2005 was not submitted to AMOC. In the available time, the IFT was unable to identify sufficient high quality unoccupied areas wolf territory within the Primary Recovery Zone that would ensure a good probability of successful new releases of packs of wolves. These issues have been resolved, at least to some extent, by hiring more IFT staff in 2005. As alluded to in the Response to Comment N.2, one aspect of hiring new staff is the obligation to train them. That training, including gaining on-the-ground experience managing wolves under a new suite of SOP, requires time. A moratorium on new releases in 2006 would help provide that time, thus promoting more capable wolf management on the ground and addressing some of the primary concerns of local stakeholders most affected by wolf reintroduction. These issues notwithstanding, in 2005 the IFT did propose and complete several translocations (i.e. Aspen pack, San Mateo pack, 613, and 872 and 873) into the Secondary Recovery Zone. Monitoring the success of these translocations, and the outcomes of the eight pairs of wolves that as of September 2005 might meet the definition of breeding pairs on December 31, 2005, will

enable AMOC to determine the need for new releases in 2005 and to begin evaluating the need for new pack releases in 2007. Even so, such things as staffing requirements, protocol/SOP evaluation, evaluating the current wild population of Mexican wolves, and ongoing management issues will continue to be important aspects of future decisions about wolf releases. The Project should not release more wolves than the agencies can collectively manage.

4. **Comment:** Why is a moratorium being proposed at a time when the wolf population is decreasing? **Response:** Some of the public controversy on this issue seems to reflect confusion about the rate of change and the direction of change for the wild population. The population of wolves in the Blue Range Wolf Recovery Area shows an increasing trend. Some would argue the rate of increase is not fast enough, while others argue it is too fast. In any event, the number of radio-collared wolves present at any given time is not a reliable indicator of overall population status. The proportion of uncollared wolves in the population increases as natural reproduction becomes more frequent. A moratorium is being considered to allow a one-year period for management agencies and local stakeholders to learn how to best operate under the recently-approved SOPs, to develop methods for a more reliable estimate of the number of wolves in the wild, and to do so at a time when there would be limited impact to the reintroduction effort because no new releases for the upcoming year had been scheduled.
5. **Comment:** Won't implementation of a 1-Year Moratorium on releases of captive-reared (naïve) wolves slow the recovery process? **Response:** AMOC does not believe that a 1-Year Moratorium on initial release of captive-reared wolves would significantly, or even appreciably, slow the recovery process. The primary factor in progress to date was the spate of unlawful mortalities in 2003 and the first quarter of 2004. In 2004 and 2005, the wild population began to recover from that loss. As of September 2005, monitoring indicates that as many as eight wild pairs of wolves might be present when the final annual population estimate is made, on December 31. In any event, the proposed 1-Year Moratorium does not prevent free-roaming wolves from breeding and dispersing within the designated recovery area. Therefore, given all these considerations, a 1-Year Moratorium should not affect the recovery process. See also Response to Comment N.2.
6. **Comment:** Can the 1-Year Moratorium be used as a time to work with livestock operators to figure out better ways to make the program work? If during this time, a better way can't be found, can you buy ranchers out? **Response:** Yes. If a 1-Year Moratorium were enacted, the time could be used to work with livestock operators to increase the effectiveness of management actions. However, AMOC has no funding or authority with which to buy ranchers out. A rancher who is interested in selling has other avenues to explore that possibility. A variety of private land trusts and even various government agencies have land protection programs (for endangered species purposes) that an interested rancher might consider. Some of these are focused on outright acquisition, but others provide opportunities to continue existing land uses while conveying conservation values (e.g. conservation easements). However, even if an allotment on Forest Service lands is "bought out," the subsequent owner is required to

stock the allotment to full numbers unless non-use is approved for personal convenience or resource protection. If the intent is simply not to stock the allotment, the forage on the allotment can be allocated to neighboring operations or used as a swing allotment for drought or other forage shortfalls on nearby allotments. Permanent retirement of an allotment requires full NEPA analysis and disclosure, and rarely occurs. Regardless, the Reintroduction Project's intent is not to cause ranchers to abandon their chosen lifestyle, but to find ways to accommodate wolf reintroduction/recovery and other legitimate multiple-uses of public lands, including ranching. Thus, whether or not there is a moratorium in 2006, AMOC will indeed make every reasonable effort to work with ranchers and all other stakeholders and interested parties to make the Reintroduction Project work better.

7. **Comment:** Is the issue of swapping problem wolves back and forth between States being addressed? **Response:** The draft proposed moratorium would place a 1-year hiatus on translocation of wolves involved in livestock depredations (within one year prior to release) from one State to another.
8. **Comment:** Why isn't the proposed 1-Year Moratorium proposed as permanent? **Response:** AMOC believes that a permanent moratorium, whether on new releases of packs or translocations of individuals or packs, is not justifiable at this time, from any perspective. A request for a 1-Year Moratorium on all wolf releases and on translocations across State and Tribal boundaries was presented to USFWS representatives at two non-public meetings sponsored by Congressman Pearce (R-NM), in Glenwood and Socorro NM, on February 12, 2005. Following these meetings, USFWS evaluated whether the moratorium request (and other requests offered in the meetings) was consistent with the Recovery Program's progress, given the status of Mexican wolf reintroduction at that point in time. USFWS initially believed that elements of the request (i.e. a one-year hiatus on initial releases, and no translocations of problem wolves across State and Tribal jurisdictions) would have a minimal effect on the program, if certain conditions within the wolf population were met, and would facilitate much-needed evaluation of various aspects of the Reintroduction Project. Thus, USFWS forwarded a rough draft moratorium proposal to AMOC for consideration. AMOC agreed the proposal had merit, modified it to address some concerns, and sent it out for public comment. No decision had been made on the proposal as of September 2005. However, a longer moratorium on new releases and/or translocation is not appropriate at this point because of the dynamic nature of the Reintroduction Project. The need for initial releases and/or translocations can change appreciably from year to year, due, for example, to unexpected mortalities (e.g. 13 in 2003) and/or the desire to address genetic diversity issues in the wild population. Moreover, translocations will clearly be necessary for the foreseeable future because of emergent management issues (e.g. nuisance and depredation problems), until the wild population achieves and sustains population objectives for the Recovery Area. See also Response to Comment N.2.
9. **Comment:** If the moratorium is put into place, will wolves be left alone? **Response:** If "left alone" means not managed, regardless of their behavior, the simple answer is "no." Wolves are a species that requires active, aggressive management, due to conflicts with

other multiple-uses of public lands, conflicts with other species of wildlife, and conflicts with private property rights. Thus, regardless of whether a moratorium is enacted, Mexican wolves in the BRWRA will continue to be managed in accordance with AMOC's draft and approved SOPs.

#### **O. Livestock Grazing on Public Lands**

1. **Comment:** Grazing fees for ranchers on public lands should be increased. **Response:** The present formula for calculating the grazing fees on Federal lands in the West was set forth in the Public Rangelands Improvement Act (PRIA) of 1978. On February 14, 1986, after the expiration of the PRIA formula, President Ronald Reagan issued Executive Order 12548 directing the Secretaries of the Interior and Agriculture to continue to use the PRIA fee formula to calculate the annual grazing fees. The order established a minimum fee of \$1.35. It also directed that for any given year the annual change in the fee shall not be greater than plus or minus 25 percent of the previous' years fee. In 1988, the fee formula from Executive Order 12548/PRIA was incorporated into 36 CFR 222 Subpart C.
2. **Comment:** Why are cattle raised like wildlife on the public lands? **Response:** Livestock grazing on national forest lands is authorized and regulated by the following national legislation: the Multiple Use-Sustained Yield Act of 1960, the Federal Land Policy and Management Act of 1976, [Section 402(a)], the Forest and Rangeland Renewable Resources Planning Act of 1974, as amended by the National Forest Management Act of 1976, the NEPA of 1969 and the Rescission Act of 1995. Livestock grazing is a traditional use of the national forest and part of our multiple-use mandate. Unlike wildlife, livestock on public lands are restricted to a given grazing allotment and do not have free-range over public lands.
3. **Comment:** Are the practices of cattle growers ever investigated? **Response:** Livestock grazing on national forest system lands are authorized by a grazing permit and administered through annual operating instructions and an allotment management plan. Annual inspections of range conditions, and improvements, proper use levels and the required movement of livestock are made to help ensure compliance. In the arid southwest, limited quantities of forage require large areas to be used for sustainable grazing of livestock. Livestock frequently range over large pastures, and it may be impractical to roundup and move all cattle from these large pastures on a frequent basis.
4. **Comment:** Shouldn't it be the rancher's responsibility to keep cattle away from wolves versus the other way around? **Response:** Under the multiple-use mandate of the USFS, both uses have value on national forest system lands. Livestock grazing on national forest system lands is authorized and regulated by the Multiple Use-Sustained Yield Act of 1960, Federal Land Policy and Management Act of 1976, [Section 402(a)], Forest and Rangeland Renewable Resources Planning Act of 1974, as amended by the National Forest Management Act of 1976, NEPA of 1969, and the Rescission Act of 1995. Livestock grazing is a traditional use of the National Forest and part of its multiple-use

mandate. It AMOC's intent to reduce conflicts between Mexican wolf reintroduction and grazing. The IFT informs livestock operators of wolf locations so the operator has the opportunity to take actions (e.g. additional herd riding, moving animals) to reduce potential conflicts. See also responses to comments C.11, I.22, and J.7.

5. **Comment:** Is the objective of the Mexican wolf reintroduction/recovery program to remove all ranching from this land? **Response:** No. It is not the intent of the reintroduction/recovery program to remove ranching from National Forest System lands. The USFS operates under a multiple-use mandate in which both uses have value on National Forest System lands.
6. **Comment:** Can an area of overlap between livestock and wolves be designated where ranchers graze at their own risk? **Response:** There is currently no law, regulation or policy which could accommodate such a proposal on national forest system lands. Ranchers are already aware the Forest Service lands are managed for multiple-use, and not just for optimum livestock grazing conditions.
7. **Comment:** Why are wolves being singled out, they are just a pawn in the game, and western ranching is failing anyway? **Response:** Under the multiple-use mandate of the USFS, both uses have value on National Forest system lands.
8. **Comment:** If ranchers leave because of the wolf, won't that lead to more subdivisions? **Response:** Given the increasing population in the West and current development trends, there is a potential that ranchlands will be subdivided for housing or commercial purposes if sold. However in the Blue Range Wolf Recovery Area, ~96% of the land occupied by wolves is Federally owned and designated National Forest Wilderness where residential and commercial development is not allowed.
9. **Comment:** Can ranchers grazing leases be bought out? **Response:** A "buyout program" would have to be approved by Congress and signed into law by the President. There is currently no law, regulation or policy that would allow for the buyout and retirement of livestock grazing permits. By regulation, once a permit is acquired it must be stocked with at least 90% of the permitted numbers unless non-use is approved by the Forest Service for personal convenience or resource protection.
10. **Comment:** What are the principal differences in ranching practices in AZ and NM versus the northern Rockies? **Response:** The principal difference between ranching practices in AZ and NM versus the northern Rocky Mountains is the timing of cattle presence in the National Forest due to climatic conditions in the two regions. In the northern Rocky Mountains, cattle are present on allotments in the national forest for 4-6 months, and then removed to private ground for the winter. As such, each ranch in the northern Rocky Mountains must have enough private ground to support their cattle for 6-8 months. Most of these private areas are irrigated and the ranchers spend significant time in the summer cutting hay for the winter months. Further, most of the calves in the northern Rocky Mountains are born on private ground in February-early April prior to being put on

allotments in the national forest. This grazing system is required because the winters and snow depth are such that grazing year around on Forest Allotments is not practical. The grazing system in the Southwest is a mixture of year-round grazing and seasonal grazing similar to the northern Rocky Mountains. In the Blue Range Wolf Reintroduction Area (BRWRA), these two patterns prevail in different areas. The NM portion of the BRWRA is principally year-round grazing. Similarly, the southern portion of the BRWRA in AZ is year-round grazing. However, the northern portion of the BRWRA in AZ is seasonal grazing. In year-round grazing systems, cattle can calve at any time of year in large allotments. Further, cattle remain on the allotments throughout the year. Because this system was established long ago for forested allotments, the amount of private land associated with these allotments is small and generally there is no hay produced on the private land. Thus, private land is not of adequate size to winter the number of cattle that are stocked on the forest. Cattle are generally rotated between pastures within the allotment, and most contain a calving pasture (winter/spring pasture) where the majority of the cattle calve.

#### Written Public Comment on a Proposed 1-Year Moratorium

The comments below were received on a proposed 1-Year Moratorium on initial releases of Mexican wolves in the Primary Recovery Zone. Embedded comments on other issues, ranging from recovery to various SOPs are not addressed in these AMOC responses.

1. **Comment:** Simply put, neither of these moratorium proposals is in any way supported by the scientific findings of the 3- or 5-Year Reviews; in fact they are in direct opposition to the recommendations of both. The 3-Year Review (which was undertaken by independent scientists) reported that both survival and recruitment were much too low to sustain the population. The 5-Year Review reports an extremely high failure rate of 62%, and notes that current population numbers are sustained only by a high number of releases. Obviously the wild population is not meeting established objectives for growth, persistence or self-sufficiency, and there was a precipitous (13-20%) decline in the population between 2003 and 2004. Given these findings, there is simply no scientific justification for the proposed moratorium. The findings and recommendations are quite clear – we need more wolves released and higher success rates, not fewer wolves. Both reviews noted that frequent management by capture or relocation may be impairing the wolves' ability to form packs and exploit their territories. Although translocations contribute to the high failure rate and are best avoided, we recognize that they are sometimes necessary. Given this, wolf managers need to use the best available biological data, and their own expertise and judgment, to choose locations for transfer where the wolves are most likely to succeed. The proposed limitation on cross-jurisdictional translocations only ties their hands – making translocations less likely to succeed and therefore further impairing the wolves' ability to survive and reproduce.” We recommend both proposals be rejected. **Response:** In any wildlife reintroduction, the desire is to reach a point at which the wild population no longer needs enhancement by release of captive individuals. Captive releases are costly in terms of time,

money, and other resources. Moreover, wild-born/reared individuals are generally superior to captive-born/reared animals in several ways.

The point at which a transition could or should be made to reliance on growth in the wild Blue Range Mexican wolf population has been a discussion topic for several years, dating back to development of the EIS addressing the proposed reintroduction effort. Initial AMOC discussion in 2003 revolved around biological aspects of the question. However, other factors also needed to be considered, in view of the fact the reintroduction is occurring across a mosaic of public and Tribal land ownership and management, with private in-holdings. Guidance offered by the nonessential experimental population rule under which reintroduction is authorized must also be considered.<sup>3</sup> Events early in 2005 brought these issues to the forefront.

On February 12, 2005, at constituent request, Congressman Pearce (R-NM) convened two meetings, in Glenwood and Socorro NM, to discuss local concerns about Mexican wolf recovery efforts in NM. At the Congressman's request, senior staff from USFWS Region 2 attended the meetings to listen and respond to concerns of invited participants, who were primarily members of the livestock industry in central NM.

In response to the February 2005 meetings, USFWS crafted a proposed moratorium for AMOC consideration. AMOC received the rough draft proposal on April 20, and discussed it at a previously-scheduled meeting on April 21. Cooperator consensus indicated the proposal, with modifications, had sufficient merit from an administrative and managerial perspective to be brought forth for public comment, discussion, and final AMOC action (i.e. approval or rejection). AMOC made various modifications, and brought the Draft Proposed Moratorium to the public for initial discussion in a previously-scheduled public meeting on April 22 (San Carlos AZ).

From April 22 through July 31, 2005, the Draft Proposed Moratorium was available to the public for comment. It was also discussed in eight AMWG public meetings in June 2005, four each in AZ and NM. All comment received, whether verbal or written, was evaluated and carefully considered in reaching a final decision on this matter.

This moratorium is being enacted because AMOC believes the administrative and social contexts of this reintroduction effort warrant it, and because a hiatus on new pack releases for one calendar year will not substantially impede progress toward population objectives. The moratorium covers CY2006 only, and provision is made for replacing individual wolves lost to unnatural or other causes.

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<sup>3</sup>The January 12, 1998 Final Rule establishes, through guidance on "take" of wild wolves, that management flexibility (i.e. the ability to control wolves by removal from the wild) begins when the number of breeding pairs in the wild is six or more.

In closing, AMOC notes that the question of whether to enact a moratorium, and the justification for and composition of a moratorium, should have been melded into the pre-existing Five-Year Review, review of relevant SOPs, and development of the Project's Annual Work Plan for 2006. Thus, the need for, and elements of, any future guidelines for new releases will be discussed as AMOC and the Project's IFT construct Annual Work Plans for each year beyond 2006. These documents will be discussed at AMOC's quarterly AMWG public meetings in AZ and NM, with ample opportunity for public comment to ensure full consideration of relevant concerns before decisions are made.

2. **Comment:** The proposed moratorium on releases and translocations and proposed SOP 13 on wolf control have been issued during the ongoing 5-Year Review process, thus creating new proposals and a new public review process within an existing public review process. How can the cooperating agencies possibly have completed a thorough and legitimate analysis as a basis for proposing sweeping changes to the project when the 5-Year Review and analysis has not been completed? It is disingenuous of the agencies to ask for public comments and claim that they value and will carefully consider those comments and then propose project changes before having done so. **Response:** See Response to Comment 1.
3. **Comment:** The proposed 1-Year Moratorium is not conducive to the genetic health of the wolves in the wild. **Response:** The genetics of the wild population are now a reflection of breeding in the wild, as well as which (if any) captive-born/reared animals are released. The proposed moratorium states that halting releases of packs of wolves that have not previously been in the wild will allow time to assess more clearly the total number of wolves (i.e. both collared and uncollared) in the wild. A more accurate assessment of the number of wolves in the wild may result in a more accurate assessment of the genetic health of the population, which can then be considered during future management actions. Regardless, AMOC does not believe a 1-year hiatus in releases of new packs will appreciably affect the genetics of the wild population. Moreover, even if a moratorium in new releases of packs were enacted, it might be possible to include provision for release of individual wolves as necessary to address any genetics issues and for translocations as necessary to achieve management objectives, including addressing nuisance and problem (depredation) situations. Finally, pursuant to the 1998 Final Rule and the 1998 Interagency Management Plan, management flexibility begins when the number of breeding pairs in the wild is six or higher. Thus, the proposed moratorium affirmed that it would not be enacted if the number of breeding pairs in the wild fell below this benchmark.
4. **Comment:** How does the proposed 1-Year Moratorium contribute to recovery and what is the science behind the proposal? **Response:** The concept of a moratorium on new releases of packs from captive origin stems from the premise that a transition from captive-born/reared animals to wild-born/reared animals is generally, if not always, an effective and efficient path to success. Wild-born/reared animals are typically more successful than captive-born/reared animals in surviving in the wild. In 2004, AMOC began considering whether the time had arrived to transition to reliance on wild-born/reared wolves for population growth, rather than continue new releases of captive wolves (naive packs). Recovery is achieved when threats to the species have been lessened or alleviated such that the species is no longer threatened or

endangered in all or a significant portion of its range. When a population demonstrates that it is self-sustaining (that is, able to persist in the wild in sufficient numbers in the absence of significant population augmentation by management), this may be interpreted as an indication that threats have been sufficiently alleviated. However, achieving a numeric goal is not the only consideration in recovery, nor is it the only factor relevant to consideration of a moratorium on new releases. The ability to manage the species well enough to sustain the population at recovery levels is of paramount significance. Management capability revolves around staff capacity, funding, knowledge-based management guidelines, and social acceptance. Given that significant new resources (funding, staff, equipment) were infused into the Reintroduction Project by the cooperating agencies in 2004 and 2005, a host of SOPs were in various stages of development, the wild wolf population had reached a level that seemed sufficient to ensure that it would not decline and most likely would continue to increase over the next two years, and a 5-Year Review was being conducted that might result in significant recommendation for change in the Project in 2006 et seq., public discussion of a possible moratorium on new releases in 2006 seemed timely and appropriate. Thus, the proposed moratorium was announced as a draft and discussed at a public meeting in April 2005, where it was made clear that no final decisions had been made and public comment on any and all aspects was desired. In fact, in that first public discussion, it was made clear that one element that needed particular attention was mechanisms by which genetic issues could be addressed within a moratorium, such as targeted release of single individuals into wild packs or into areas occupied by unpaired wolves. In other words, a moratorium on new releases of packs does not of itself preclude the ability to address any genetic issues in the wild population.

5. **Comment:** Because there were no releases of captive-reared wolves planned for 2005, hasn't there already been a moratorium? **Response:** The lack of releases of new packs in 2005 occurred largely due to several problems that a moratorium in 2006 would enable AMOC and the IFT to address. For example, the IFT was so occupied with managing nuisance and problem wolves in October-December 2004 that a proposal for new releases in 2005 was not submitted to AMOC. In the available time, the IFT was unable to identify sufficient high quality unoccupied areas wolf territory within the Primary Recovery Zone that would ensure a good probability of successful new releases of packs of wolves. These issues have been resolved, at least to some extent, by hiring more IFT staff in 2005. As alluded to in the response to comment N.2, one aspect of hiring new staff is the obligation to train them. That training, including gaining on-the-ground experience managing wolves under a new suite of SOPs, requires time. A moratorium on new releases in 2006 would help provide that time, thus promoting more capable wolf management on the ground and addressing some of the primary concerns of local stakeholders most affected by wolf reintroduction. These issues notwithstanding, in 2005 the IFT did propose and complete several translocations (i.e. Aspen pack, San Mateo pack, 613, and 872 and 873) into the Secondary Recovery Zone. Monitoring the success of these translocations, and the outcomes of the eight pairs of wolves that as of September 2005 might meet the definition of breeding pairs on December 31, 2005, will enable AMOC to determine the need for new releases in 2005 and to begin evaluating the need for new pack releases in 2007. Even so, such things as staffing requirements, protocol/SOP evaluation, evaluating the current wild population of Mexican wolves, and

ongoing management issues will continue to be important aspects of future decisions about wolf releases. The Project should not release more wolves than the agencies can collectively manage.

6. **Comment:** Why is a moratorium being proposed at a time when the wolf population is decreasing? **Response:** Some of the public controversy on this issue seems to reflect confusion about the rate of change and the direction of change for the wild population. The population of wolves in the Blue Range Wolf Recovery Area shows an increasing trend. Some would argue the rate of increase is not fast enough, while others argue it is too fast. In any event, the number of radio-collared wolves present at any given time is not a reliable indicator of overall population status. The proportion of uncollared wolves in the population increases as natural reproduction becomes more frequent. A moratorium is being considered to allow a 1-year period for management agencies and local stakeholders to learn how to best operate under the recently-approved SOPs, to develop methods for a more reliable estimate of the number of wolves in the wild, and to do so at a time when there would be limited impact to the reintroduction effort because no new releases for the upcoming year had been scheduled.
7. **Comment:** Won't implementation of a 1-Year Moratorium on releases of captive-reared (naïve) wolves slow the recovery process? **Response:** AMOC does not believe that a 1-Year Moratorium on initial release of captive-reared wolves would significantly, or even appreciably, slow the recovery process. The primary factor in progress to date was the spate of unlawful mortalities in 2003 and the first quarter of 2004. In 2004 and 2005, the wild population began to recover from that loss. As of September 2005, monitoring indicates that as many as eight wild pairs of wolves might be present when the final annual population estimate is made, on December 31. In any event, the proposed 1-Year Moratorium does not prevent free-roaming wolves from breeding and dispersing within the designated recovery area. Therefore, given all these considerations, a 1-Year Moratorium should not affect the recovery process. See also response to comment N.2.
8. **Comment:** Can the 1-Year Moratorium be used as a time to work with livestock operators to figure out better ways to make the program work? If during this time, a better way can't be found, can you buy ranchers out? **Response:** Yes. If a 1-Year Moratorium were enacted, the time could be used to work with livestock operators to increase the effectiveness of management actions. However, AMOC has no funding or authority with which to buy ranchers out. A rancher who is interested in selling has other avenues to explore that possibility. A variety of private land trusts and even various government agencies have land protection programs (for endangered species purposes) that an interested rancher might consider. Some of these are focused on outright acquisition, but others provide opportunities to continue existing land uses while conveying conservation values (e.g. conservation easements). However, even if an allotment on Forest Service lands is "bought out," the subsequent owner is required to stock the allotment to full numbers unless non-use is approved for personal convenience or resource protection. If the intent is simply not to stock the allotment, the forage on the allotment can be allocated to neighboring operations or used as a swing allotment for drought or other forage shortfalls on nearby allotments. Permanent

retirement of an allotment requires full NEPA analysis and disclosure, and rarely occurs. Regardless, the Reintroduction Project's intent is not to cause ranchers to abandon their chosen lifestyle, but to find ways to accommodate wolf reintroduction/recovery and other legitimate multiple-uses of public lands, including ranching. Thus, whether or not there is a moratorium in 2006, AMOC will indeed make every reasonable effort to work with ranchers and all other stakeholders and interested parties to make the Reintroduction Project work better.

9. **Comment:** Is the issue of swapping problem wolves back and forth between States being addressed? **Response:** The draft proposed moratorium would place a 1-year hiatus on translocation of wolves involved in livestock depredations (within one year prior to release) from one State to another.
  
10. **Comment:** Why isn't the proposed 1-Year Moratorium proposed as permanent? **Response:** AMOC believes that a permanent moratorium, whether on new releases of packs or translocations of individuals or packs, is not justifiable at this time, from any perspective. A request for a 1-Year Moratorium on all wolf releases and on translocations across State and Tribal boundaries was presented to USFWS representatives at two non-public meetings sponsored by Congressman Pearce (R-NM), in Glenwood and Socorro NM, on February 12, 2005. Following these meetings, USFWS evaluated whether the moratorium request (and other requests offered in the meetings) was consistent with the Recovery Program's progress, given the status of Mexican wolf reintroduction at that point in time. USFWS initially believed that elements of the request (i.e. a 1-year hiatus on initial releases, and no translocations of problem wolves across State and Tribal jurisdictions) would have a minimal effect on the program, if certain conditions within the wolf population were met, and would facilitate much-needed evaluation of various aspects of the Reintroduction Project. Thus, USFWS forwarded a rough draft moratorium proposal to AMOC for consideration. AMOC agreed the proposal had merit, modified it to address some concerns, and sent it out for public comment. No decision had been made on the proposal as of September 2005. However, a longer moratorium on new releases and/or translocation is not appropriate at this point because of the dynamic nature of the Reintroduction Project. The need for initial releases and/or translocations can change appreciably from year to year, due, for example, to unexpected mortalities (e.g. 13 in 2003) and/or the desire to address genetic diversity issues in the wild population. Moreover, translocations will clearly be necessary for the foreseeable future because of emergent management issues (e.g. nuisance and depredation problems), until the wild population achieves and sustains population objectives for the Recovery Area. See also response to comment N.2.
  
11. **Comment:** If the moratorium is put into place, will wolves be left alone? **Response:** If "left alone" means not managed, regardless of their behavior, the simple answer is "no." Wolves are a species that requires active, aggressive management, due to conflicts with other multiple-uses of public lands, conflicts with other species of wildlife, and conflicts with private property rights. Thus, regardless of whether a moratorium is enacted, Mexican wolves in the Blue Range Wolf Recovery Area will continue to be managed in accordance with AMOC's draft and approved SOPs.

12. **Comment:** We support the proposed 1-year moratorium on the release or translocation of captive-reared wolves. We would also strongly suggest that the moratorium be extended until such time that a more widely accepted and more appropriately funded program can be put into place. From our perspective the current effort is not widely supported by the local communities, is not satisfactorily funded by the other cooperating agencies and is not adequately embraced by our neighbors in NM. As we have experienced over the past several years the reintroduction effort is destined to fail without fulfilling these critical elements. The experiment should be abandoned unless a broader commitment is secured and a more responsive program established. **Response:** See Response to Comment 1.
13. **Comment:** We oppose the proposed moratorium on wolf reintroduction. We believe that the currently defined boundaries of the wolf recovery are too limited and should be expanded to allow natural dispersal and range expansion of existing and future wolf populations in AZ and NM and beyond. **Response:** See Response to Comment 1.
14. **Comment:** The Draft Proposal indicates that the proposed 1-Year Moratorium on the initial release of captive-reared wolves and the proposed restrictions on translocations of experienced wolves came about as a response to concerns raised in meetings between AMOC and constituents of U.S. Representative Steve Pearce (R-NM). According to the Draft Proposal, the "general message conveyed by meeting participants was that they strongly opposed the Mexican wolf reintroduction program." Clearly, this meeting was attended by stakeholders representing a narrow set of viewpoints and attitudes toward wolves and the reintroduction program. For other stakeholders, such as conservation biologists, wolf restoration advocates, and the majority of AZ residents who support recovery of the Mexican wolf, AMOC apparently did not provide any such special additional opportunities for input beyond the public open houses. It is clear that the Draft Proposal is flawed from the start as it came about based only on input from the select group of stakeholders who oppose the reintroduction program and the restoration of Mexican wolves. We understand that human attitudes are likely the primary threat to Mexican wolves, but surely there are ways to improve attitudes in a meaningful and lasting way, rather than simply taking unfounded and potentially dangerous steps for the sole purpose of appeasing this group of stakeholders in the short-term. **Response:** See Response to Comment 1.
15. **Comment:** The reintroduction of Mexican Grey Wolves into these recovery areas should be immediately placed in moratorium. This reintroduction program was ill conceived, poorly implemented, and is currently totally out of control. All reintroductions should immediately cease. This program should undergo a congressional investigation and an audit by the Department of Interior. If you continue on your current path without regard for the damage you are doing to the social and economic fabric of our community, the results will be a grassroots "firestorm" that you cannot extinguish. You simply cannot continue to run roughshod over the rights of the citizens of these United States. **Response:** See Response to Comment 1.

16. **Comment:** I oppose the 1-Year Moratorium on wolf releases. Decisions should be made by the recovery team, and not mandated by such a moratorium. If too many releases have occurred in too limited an area, causing undo hardship on local people, then other release areas should be opened up. The Gila National Forest is the most obvious location, but others within the recovery area may be available as well. Wolves are not long-lived mammals, and several important breeding animals that have maybe 2 or 3 years realistic capacity for producing surviving young in the wild may NOW be available for release. We do not need a moratorium to assess the program – its myriad problems outweigh its small but steady successes and we need no such hindrance to agency efforts to comply with the law that clearly mandates the recovery of Mexican Wolves. The moratorium is a response to LOCAL stakeholders and while respect for this is noted, we need a much larger view here. **Response:** See Response to Comment 1.
17. **Comment:** BEFORE a moratorium be put in place, or even considered, an assessment of current livestock management operations to address areas of potential conflict should be completed. This assessment should compare local operations to other areas in the country that have wolves – Minnesota, Wisconsin, Michigan, Montana, Idaho, etc. Are local operations in line with average conflict – above, below – what is the true picture for the BRWMA? Depredations should be assessed IN LIGHT OF other deaths inherent in running livestock on rugged terrain, and with management practices of remote and year-round calving. Sample questions - if carcasses continue to be a problem, can management practices be revised to lessen the rate of death from non-wolf causes, and is the rate of death above or below national averages under other management practices. I am not opposed in the least to ranching, but question whether small size ranches (160 acres with 65,000 public land leased acres?) cannot adjust operations to cause less conflict. Less emphasis should be placed on managing wolves, while greater emphasis must be placed on managing factors encouraging conflict with livestock and humans. **Response:** See Response to Comment 1.
18. **Comment:** The moratorium on releases of Mexican Wolves, as written, seems to be a smokescreen designed to protect wolves over livestock and individual families. Inexperienced wolves are seldom released in the BRWRA anymore and when released have only been released into AZ. FWS is in effect, thumbing their nose at Congressman Pearce's efforts to help his constituents through this little to no change-recommendation. As soon as a certain number of the wolves already marked for removal from the wild due to excessive depredation are taken out, the clause in the moratorium that allowed more releases, when breeding pairs in the wild are reduced, will kick in and nullify the moratorium. FWS, AMOC and the IFT can now release anything, anytime anywhere. As long as there are fewer than 6 breeding pairs in the wild according to FWS collared numbers, the moratorium is invalidated. **Response:** See Response to Comment 1.
19. **Comment:** A temporary moratorium on **all** releases for a year or more was requested at the Pearce meetings, simply to give the agency time and free up their budget to get their wolves counted and collect better data. As opposed to constantly releasing- re-releasing and cleaning up problem animals and the messes the current policy is creating. At the most recent NM Game Commission meeting Commissioner Pino stated that he believed a 4 year moratorium

was necessary to rectify the programs current problems. **FACT:** FWS, AMOC and IFT simply do not know how many breeding pairs are out there, they do not know how many wolves are out there. They do not count uncollared wolves, nor do they investigate wolf sightings even when handed photographic evidence. There are many more wolves out in the BRWRA and beyond it than AMOC and FWS and IFT know about. **Response:** See Response to Comment 1.

20. **Comment:** The request to slow things down (via a moratorium) and reassess the situation should be considered a benefit to the **entire wolf program** and if it ever happens, the likely results would show the real wolf numbers and given the agency a much needed boost in the confidence of the program. Some attention needs to go into investigating what has happened to all the born in the wild litters, FWS themselves report litters from the 4-8 breeding pairs that have been on the ground in the past several years. Those packs have been reported to have successful litters each year. Those litters have been ignored for 4 years, a blatant violation of the final rule. To comply with their obligation to have a fairly accurate count on wild born and distributed animals, FWS needs to shift priorities from re-releasing animal after animal to discovering what they have and where it is. At the Pearce meetings, several instances were cited where attendees had seen wolves and wolf sign in and out of the recovery area and the general feeling was that FWS has been unable or unwilling to collect data on actual wolf numbers in the wild. **Response:** See Response to Comment 1.
21. **Comment:** A moratorium would also allow time to look at hybrid issues. The removal and euthanasia of yet another hybrid litter of pups in AZ earlier this month, and the identification of unknown wolf-like animals near St Johns and Vernon AZ, is another reason to refocus the program's policies and try to identify the born in the wild, packs roaming the BRWRA. Efforts must also be made to determine whether male wolves are creating hybrid litters in the coyote population. **Response:** See Response to Comment 1.
22. **Comment:** Illegitimate anger and criticism of Congressman Pearce's role in proposal of a moratorium should have no bearing on your decision. Constituents can legitimately invite a congressional representative to a meeting to hear their concerns when they are not being heard any other way. The meetings were a legitimate use of Congressman Pearce's time and were very much appreciated in the rural communities that host and end up feeding their livestock to wolves. Nothing prevents the folks upset about the NM meetings from inviting their representative to hear them out and they have had the same kinds of meetings themselves early and often. There are enough small family ranching operations paying the feed bill for the wolves, and even at times, providing lodging and food for the employees, of the Mexican wolf program. These contributions are above and beyond our income tax contribution and above and beyond the average citizen's contribution to wolf recovery. My constituency of 120 members (NM ranchers) deserves to be heard. We live here; we are the local affected interest. We suffer such a disproportionate burden from to this program that we deserve input into policy changes, above and beyond the average citizen. **Response:** See Response to Comment 1.

23. **Comment:** A moratorium on releases will help to find time for habitat improvement that should go hand in hand with this endeavor. Not one pack of wolves has stayed in the Gila Wilderness and there have been at least 10 releases there. They have all moved to livestock operations and all have gone on to kill cattle. There are currently no wolves in the Gila Wilderness the IFT and AMOC has simply been using it as the staging area. Wolves stay there for varying amounts of time then they have always left to settle on neighboring allotments or private land ranches. FWS then simply release another pack compounding the problems. Habitat improvement should be done in the wilderness to encourage an adequate prey base and to encourage wolves to stay there. **Response:** See Response to Comment 1.
24. **Comment:** I urge you to support a total, year-long moratorium or better yet a longer moratorium of two to four years, on all wolf releases and engage in a plan to inventory wild wolves and count them as part of the population in the during the moratorium. Only when a moratorium on releases is implemented, will FWS will have the time and budget to locate their lost and unknown wolves. The tally of wolves in the wild will go up not down. **Response:** See Response to Comment 1.
25. **Comment:** There is no indication in the Draft Proposal that there is any scientific support for the effectiveness of the proposed moratorium in addressing the concerns of the select group of stakeholders who attended the aforementioned meeting. We are aware of no scientific research documenting a greater likelihood of livestock depredations by naïve wolves when compared to wolves that have experience in the wild. If AMOC is aware of any documentation on the relationship between a wolf's experience in the wild and the likelihood of livestock depredations - whether it is in the form of peer-reviewed scientific research articles or raw data-such data must be made available so that the public, including independent scientists, may meaningfully comment on the rationale for the moratorium and its likely effectiveness in addressing the concerns of a select group of stakeholders. The Draft Proposal refers vaguely to "the apparent greater success in translocations of 'experienced' wolves versus initial releases of naïve animals" but neither provides scientific support for this claim nor even goes so far as to define "success." (In contrast, there is some indication that experience with livestock carcasses increases the likelihood that a wolf will attack living livestock in the future, but this is not addressed in the Draft Proposal; see below.) Moreover, the moratorium on new releases of naïve wolves will unnecessarily limit the introduction of new genetic material from additional lineages into a population consisting predominantly of a single lineage. There would have to be strong justification, based on science, for this move; at this point, the only justification appears to be political rather than biological. The proposed restrictions on translocations of wolves, if enacted, would further limit the number of wolves captured in AZ that could be released in NM. Because such translocations are currently the primary means of establishing wolves in NM, the proposed restrictions on translocations are likely to significantly impede establishment and recovery of the Mexican wolf in NM. **Response:** See Response to Comment 1.
26. **Comment:** The 3-Year Review noted that both survival and recruitment were too low to sustain a population. According to the 5-Year Review, the current population numbers are maintained only through new releases of wolves. In addition, Dr. Philip Hedrick of Arizona

State University wrote that only one of the three genetic lines comprising the Mexican wolf population is represented in the current wild population. Given this information a one year moratorium on new releases will detrimentally affect the sustainability of a population and seriously threaten its genetic viability. **Response:** See Response to Comment 1.

27. **Comment:** Under current policy, new releases of wolves are not permitted in NM. Translocation of wolves captured in AZ has been the only process available for establishing a NM population. Therefore, a moratorium on translocations will end the ability to release wolves in NM. **Response:** See Response to Comment 1.
28. **Comment:** The justification provided for the proposed 1-year moratorium on releases and translocations is that a select group of project opponents meeting privately with high-level FWS regional officials at the request of Congressman Pearce (R-NM) asked for it. The proposal notes that the additional time saved by not releasing wolves will be allocated to five ongoing project activities. This action flies in the face of the adaptive management process and is neither appropriate, ethical, nor acceptable. And it is an insult to those who have expended considerable time and effort to participate in this process under established rules. **Response:** See Response to Comment 1.
29. **Comment:** The proposed moratorium on releases and translocations appears politically motivated, premature, and unjustified on the basis of findings of the 3-Year Review and preliminary findings of the 5-Year Review, both summarized above. We fail to find any compelling justification in support of the necessity or urgency of the proposed moratorium and we recommend that it be rescinded immediately. Furthermore, the proposed moratorium contains a self-rescinding provision of the prohibition of initial releases of captive-reared wolves that is triggered when the number of breeding pairs in the wild falls below six. Following the currently ordered and ongoing efforts to kill or capture the Francisco Pack, this criterion will be met—the resulting number of breeding pairs will be five or fewer. That the number of breeding pairs currently in the wild is already this low also supports our conclusion that the proposed moratorium is unjustified and our recommendation that it should be rescinded in its entirety. **Response:** See Response to Comment 1.
30. **Comment:** Wolf recovery is controversial; and the FWS adopted the “nonessential experimental population” classification under Section 10(j) of the ESA to have more flexibility in finding and applying creative solutions for reducing conflicts while recovering the Mexican wolf. But there is one legally-binding criterion that the agencies appear to be ignoring—releases of listed species under Section 10(j) provisions must “further the conservation” of the species. Based on our analysis presented herein, we conclude that the “conservation” test (ESA 10(j)(2)(A)) is not being met. **Response:** See Response to Comment 1.
31. **Comment:** We oppose the moratorium on releases of wolves from the captive breeding program, and the moratorium on translocations across jurisdictional boundaries of wolves that have depredated. These measures have no scientific basis. The moratoria will serve to greatly lower the number of wolves added to the population. Given that the most important

indexes to population progress are significantly below projections, the opposite effect should be endeavored. There were projected to be 15 breeding pairs by the end of this year, but in fact the number is at most half that. The censused wolves declined during 2004 by 20% -- from 55 to 44 animals -- while the number projected at the end of last year was 68. The number on the ground reflects continuation of releases from the captive breeding population beyond what was projected. Releases (including translocations) have served to mask the unsustainably high number of wolves succumbing to Federal predator control -- while the number of breeding pairs tells the more compelling and disturbing story of how predator control is suppressing population viability. In addition, the proportion of wolves from the Ghost Ranch and Aragon lineages is significantly below what scientists (e.g. Philip Hedrick, Ph.D.) have described as ideal. It is important, according to Dr. Hedrick, to improve the genetic ratio as soon as possible -- but the moratorium would prevent that. Control that already takes place has eliminated key wolves with important genetic characteristics. Reducing the genetic heritage stemming originally from only seven founding animals risks inbreeding depression -- which may already be vexing the population (as possibly evidenced by low litter sizes and body weights). This also poses an unacceptable risk that the wolves will eventually succumb to a host of other maladies that may be incidental to inbreeding depression, including disease. **Response:** See Response to Comment 1.

32. **Comment:** Not only is there no scientific basis for the moratoria, but the option of resuming releases if the number of breeding pairs falls below six has no basis either (the reference to maximum management flexibility notwithstanding). Six breeding pairs is not close to a viable population; if the moratoria are to be enacted, the number of breeding pairs that would suspend it should be no lower than that identified as the threshold for a viable population -- and if that number hasn't been identified then no moratoria can be scientifically justified. Since variability in estimates of how many wolves in the wild has been used as an excuse for excessive agency control of wolves, and for the moratorium, it should be noted that since 2001 USFWS has insisted that there are many more uncollared wolves than those it can find, and that the next season's radio-collaring will prove the matter. But year after year only a small number of uncollared wolves can be caught and collared -- thus lending strong credence to the possibility that in fact there are few uncollared wolves out there. In addition, this year's wide peregrinations of wolves such as the Aspen Pack sisters and the lone male recently trapped in the Horse Springs area of NM, all of whom remain (or remained in the case of the Horse Springs animal) single with no evidence of mates, argues that the number of uncollared wolves are few and not widely distributed across the landscape; alternately, the population would be increasing exponentially. A biologically conservative approach would be to assume that the population is not significantly higher than can be counted, and the moratorium and SOP 13 will take the population in the opposite direction of what is needed for eventual recovery. **Response:** See Response to Comment 1.
33. **Comment:** The moratoria are also not justified on procedural grounds, as they stem from two private meetings on February 12, 2005 at which senior regional officials of USFWS were lobbied by the livestock industry. Those senior officials did not attend the public meetings at which a majority of people expressed opposition. Furthermore, the decision making process for the moratoria is concurrent with but separate from the 5-Year Review,

and contradicts recommendations within the 5-Year Review; it is as if these decision-making processes addressed a different wolf population -- or a different universe of facts. It is especially undemocratic and cynical that both the moratoria and SOP 13 were being implemented while the public comment process for them was still open -- and the prejudicial nature of this timing is accentuated by contrast with USFWS's continued failure to abide by the recommendations of the 3-Year Review that was completed over four years ago. The government's dilatory conduct when it comes to protecting wolves, coupled with its undue and unseemly haste to stop releasing wolves and trap and kill more of them, does not seem designed to win public confidence. **Response:** See Response to Comment 1.

34. **Comment:** In sum, we request that that both moratoria be rejected and that SOP 13 be rejected. Instead, we request that a moratorium on all predator control targeted on Mexican wolves be enacted except in the exceedingly rare cases in which control may serve the interests of public health and safety. Such an alternate moratorium should be in place until the recommendations of the 3-Year Review regarding the boundary rule and preventing wolves from scavenging on livestock carcasses are enacted through changes in the Federal Register, or until there is unequivocal evidence that the number of breeding pairs in the wild meets or exceeds the number projected in the reintroduction EIS. Both addressing the boundary rule and preventing the ongoing habituation of wolves to livestock via scavenging on livestock carcasses through a rule change would reduce the necessity for much of the predator control targeted at wolves. **Response:** See Response to Comment 1.
35. **Comment:** Furthermore, we request that the agencies' written response to these comments include an analysis of the likely alternate demographic effects of our proposed moratorium on wolf-targeted predator control, versus the likely demographic effects of the USFWS's proposed two moratoria and SOP 13, versus the likely demographic effects of the regulatory status quo. **Response:** See Response to Comment 1.

#### Summary of Written Public Comment on SOP 13.0: Control of Mexican Wolves

Many of the issues raised in the comments below are addressed in more detail in the AMOC responses to written 5-Year Reviews comment (i.e. at the beginning of this document).

1. **Comment:** If 3 strikes and you're out, in terms of livestock depredation, is the rule, why is the slate wiped clean on an offending wolf after a year with no confirmed depredations? **Response:** Resolution of wolf conflicts with livestock can be achieved through management of the specific situation, not just the management of the offending wolf. More than half the Mexican wolves that have been translocated following depredations successfully bred and produced pups in the wild following translocation. The success rate for wolves translocated following their involvement in depredation was double the success rate for wolves released directly from captivity. This indicates that relocating depredating wolves to a different setting may allow them to contribute to successful wolf reintroduction if wolf behavior or situations can be modified before a "third strike" occurs. A one-year period without any depredation events provides a strong indication that the situation has been effectively resolved.

2. **Comment:** Why doesn't SOP 13 have a provision in it, or discuss if a human is killed by a wolf? **Response:** Human safety issues are covered in the Final Rule, thus eliminating the need to re-address in SOP 13.0. The Final Rule for this nonessential experimental reintroduction states that a Mexican wolf may be taken in self defense or in the defense of a human. In addition, if USFWS or an authorized agency determines that a wolf presents a threat to human life or safety, USFWS or an authorized agency may kill it, capture and euthanize it, or place it in captivity.
3. **Comment:** The Mexican wolf reintroduction program is being sabotaged by pulling the wolf out for one year and then putting the same animal(s) back in the same place where they committed their so-called crime. **Response:** Deliberately holding a wolf or wolves in captivity for one year after they have been removed from the wild (for whatever reason, e.g. nuisance or problem issues, leaving the BRWRA, injury) is not a standard procedure. Typically, if a wolf is eligible for re-release into the wild, and there is an approved release site without other wolves present (some exceptions to this may occur, such as when the objective is to pair a wolf held in captivity with a free-ranging lone wolf), then the goal is to return the animal(s) to the wild as soon as practical. However, wolves are occasionally held in captivity for longer periods for a variety of reasons, including: a) lack of availability of a suitable release site; b) pair bonding and breeding of two genetically desirable animals; c) allowing a late-term female to whelp and raise her pups until they are 8-10 weeks of age; d) veterinary care; and e) retirement from the reintroduction effort or from the recovery program. Wolves that have been pulled from the wild may be returned to an area at or near where they were originally removed, if they meet criteria outlined in various SOPs (i.e. SOP 5.0 – Initial Wolf Releases, SOP 6.0 – Wolf Translocations, SOP 13.0 – Control of Mexican Wolves). Finally, wolves have excellent homing instincts, and the ability to return to a former home range even after being re-released many miles distant.
4. **Comment:** Why was the Aspen Pack re-released before a year was up since when they're removed from the wild for cause they're supposed to be kept in captivity for a year. **Response:** There is no requirement within the Reintroduction Project to hold a wolf or wolves in captivity for a year, following removal from the wild for cause. The only reference to one year made in Draft SOP 13.0 is that "a wolf (or wolves) that has (or have) been involved in fewer than 3 depredation incidents will, if 365 days have passed since the last incident, be considered a new wolf, with no strikes against it."
5. **Comment:** A wolf's record (i.e. livestock depredations) should follow the animal throughout its life. **Response:** AMOC and the IFT have developed a set of SOPs to help guide the Reintroduction Project. The proposed scenarios for management of problem wolves are outlined in SOP 13.0. As stated in SOP 13.0, a wolf with less than 3 depredations that has not depredated in over a year is assumed to have no depredations. AMOC and the IFT consider management intervention to have been successful and the wolf or wolves have learned from their experiences if they have not depredated on livestock for over a year from their initial offense(s).

6. **Comment:** Wolves that commit depredations on livestock should not be killed, but instead should be captured alive in order to conserve their genetics. **Response:** Wolves that are chosen for the Reintroduction Project must fit several criteria, one being that they are not genetically important to the captive population (i.e. an experimental nonessential population). Under the Final Rule for the Project, wolves released to the wild are considered expendable to the Recovery Program. AMOC SOP 13.0 carefully defines the progression of actions to be taken if a wolf or wolves begin to become a nuisance or begin to depredate. Attempts will be made to live capture such animals; however, if certain circumstances are met, permanent removal (which includes lethal control as an option) may be used. Under a permanent removal order, a wolf may still be captured alive, if live capture occurs before an opportunity for lethal control, or if live capture is the most expeditious approach to removing the animal from the wild. However, by law (i.e. the Final Rule), the released wild wolves are redundant to and not needed in the captive program (i.e. returning them to captivity would not benefit the Recovery Program/Reintroduction Project or “conserve their genetics”).
7. **Comment:** Why are ranchers responsible for, or have any voice in removal of wolves? **Response:** SOP 13.0 was developed to list criteria for determining the status of nuisance and problem wolves, and to provide guidelines to the IFT for conducting wolf control actions. Management responses to nuisance and problem wolf issues are implemented in a stepwise fashion, and are a function of the number and severity of incidences. Ranchers and property owners in and adjacent to the BRWRA are arguably the most immediately and directly affected when a nuisance or problem wolf issue arises. Rancher comments are thus given the same fair and equal consideration as any other interest (pro-, neutral, and anti- wolf) in terms of crafting the final version of SOP 13.0 and determining when and how wolf removal will occur. See also response to Comment C.12.
8. **Comment:** How sure are investigators that a wolf actually preyed on a cow? **Response:** WS IFT members are professional wildlife damage management experts in the field of predator depredations. Their investigations to determine which species caused the depredation consider the following criteria, when relevant information is present (see Roy and Dorrance 1976 for complete guidelines):
- xi. Subcutaneous hemorrhaging associated with wounds on the carcass.
  - xii. Additional morphological evidence associated with the carcass.
  - xiii. Size of the canine spread on the hide.
  - xiv. Attack points on the carcass (i.e. wolves and coyotes typically attack the hamstring and armpit area, whereas lions generally attack the back of the neck).
  - xv. Size and extent of bones chewed by the predator.
  - xvi. Tracks/scat/hair in the area.
  - xvii. Disturbed vegetation and terrain in the area, with areas of blood on the ground.
  - xviii. Any additional evidence around the site (e.g. poisonous plants, skinned carcass).
  - xix. Presence or history of wolves or other predators in the immediate area.
  - xx. Witness accounts.

Cause of death is classified as follows, based on evidence at the site: confirmed, probable, possible, or not a wolf kill. Determination and classification of cause of death does not need to be made at the initial scene of investigation, but should be completed as soon as possible after the on-site investigation has been completed. The extent to which an absolute (definitive) determination of cause of death can be made depends on the available evidence.

9. **Comment:** Can a section be included in SOP 13 that identifies when wolves locate into new areas that ranchers are notified and informed of proactive solutions to living with wolves (e.g. Defender of Wildlife's proactive program)? **Response:** This information will be included in SOP 3.0, Public Outreach.
10. **Comment:** Can SOP 13 be amended to provide incentives to ranchers who are good stewards (e.g. work actively to remove carcasses from their allotments, employ range riders)? **Response:** In lieu of adding incentives information to SOP 13.0, AMOC: is considering developing another SOP or a companion document to focus on "living in wolf country." The intent would be to provide information on incentive programs that already exist, including those that can provide funding to ranchers to underwrite the costs of at least some of the measures by which wolf depredation might be reduced, or prevented.
11. **Comment:** Can SOP 13 be amended such that there is no action taken against a livestock-depredating wolf on a rancher's allotment unless that rancher is being proactive to minimize wolf/livestock conflicts? **Response:** The Reintroduction Project is authorized under a Final Rule that reflects a commitment to integrate wolf reintroduction and recovery into existing multiple-uses of public lands and to minimize conflicts on private lands. The Final Rule is not structured, nor is the Reintroduction Project empowered or administered, to force changes in public or private grazing practices to accommodate presence of wolves. Thus, the 5-Year Review and ongoing adaptive management of the Project will continue to focus on finding and implementing incentives for voluntary actions by ranchers and other stakeholders that would help accommodate presence of wolves by reducing conflicts such as livestock depredation. Clearly, there is a need for more effective and better-funded incentives, and for more effective compensation for losses incurred by private property owners. As progress is made in these areas, SOP 13.0 will be revised to reflect the new information and opportunities.
12. **Comment:** Instead of being killed when found guilty of excessive livestock depredations (i.e. 3 strikes and you're out), can they be captured and homes found for them? **Response:** SOP 13.0 charts the progression of actions taken if a wolf or wolves begin to cause nuisance problems or depredate. Attempts are made to live capture these animals; however, if certain circumstances are met, permanent removal (which includes lethal control as an option) orders may be given. Efforts to capture the offending wolf will continue even if lethal control measures are implemented. If the animal is live-captured, it may be placed in one of the 44 captive facilities in the USA and Mexico that participate in the Mexican Wolf SSP.
13. **Comment:** Having WS determine if a wolf killed a cow on Reservation lands is a conflict of interest. **Response:** The United States has a unique legal relationship with Tribal

governments as set forth in the Constitution of the United States, treaties, statutes, Executive Orders, and court decisions. Since the formation of the Union, the United States has recognized Indian tribes as domestic dependent nations under its protection. The Federal Government has enacted numerous statutes and promulgated numerous regulations that establish and define a trust relationship with Indian tribes. WS has the Federal responsibility under the trust relationship to provide Federal leadership in the field of wildlife damage management, which includes wolf depredations.

14. **Comment:** There is a delayed response by WS when a report of a possible livestock depredation on Tribal lands is made, such that the evidence of the attack is often gone. **Response:** Since 1998, WS has responded to 16 reported cases of potential wolf depredations on Tribal Trust Lands (unpublished data). The time between when WS received the report and when they arrived on site varied from the same day of the report to two days after the report was received. WS had six same-day responses, nine next-day response times and one two-day response time. There is no evidence supporting the contention that delayed response is or has been a problem.
15. **Comment:** Can USFWS provide more infrastructure to run the program, such that the San Carlos Apache Tribe can have someone to work with that they're more comfortable with? **Response:** The nature and extent of the asserted discomfort cannot be determined from the comment offered. Currently, the USFWS Mexican Wolf Field Projects Coordinator, a member of the IFT, is the USFWS liaison with SCAT on wolf control issues. The Field Projects Coordinator works directly with the Tribal wildlife department to conduct management actions (e.g. radiotracking, hazing, trapping). USFWS provides funding to the Tribal wildlife department each year to offset the cost of equipment and personnel for Tribal involvement in the wolf program. Reports of possible wolf depredation on Tribal lands are investigated by WS, in accordance with Tribal guidance. USFWS is working with the Tribe and WS to train Tribal game officers in investigative procedures, which would in turn allow the Tribe to assume more responsibility in conducting depredation investigations in the future. In the meantime, USFWS has hired a Tribal member, permanently stationed in San Carlos, who divides his time between Mexican wolf and fisheries issues.
16. **Comment:** The practice of lethal control of wolves that have been involved in excessive livestock killing (3 strikes and you're out) is not working. **Response:** The orders for wolf removal are for permanent removal from the wild. Lethal control is only one of the tools available to remove wolves from the wild. To date, three Mexican wolves have been lethally removed under permanent removal orders. Livestock depredation is inevitable when free-ranging wolves occur, but depredation is being managed by permanent removal (including lethal take).
17. **Comment:** What is the SOP for removal of denning females from the wild? **Response:** SOP 13.0 – Control of Mexican Wolves, is currently in draft form. Public comment in regard to this issue is being evaluated by AMOC. The current draft of SOP 13.0 does not differentiate between denning females and any other segment of the wolf population. This issue will be explored further between now and the period in 2006 when denning will recommence.

18. **Comment:** Why isn't there a one strike and you're out policy? **Response:** The Reintroduction Project is obligated to address (provide relief for) depredation issues, but it is also legally compelled to pursue recovery, which requires growth in the wild wolf population. Conflicts between wild wolves and livestock are inevitable. However, resolution of wolf conflicts with livestock can be achieved through management of the specific situation, not just management of the offending wolf. More than half the Mexican wolves that have been translocated following depredations successfully bred and produced pups in the wild following translocation. The success rate for wolves translocated following their involvement in depredation was twice the success rate for wolves released directly from captivity. This indicates that depredating wolves relocated to a different setting may significantly contribute to successful wolf reintroduction. Interventions such as hazing, fladry, movement of wolves or livestock, and removal of individual pack members can be employed to increase the probability of successfully "rehabilitating" wolves that have been involved in a depredation situation.
19. **Comment:** Why are problem wolves translocated and not put in permanent captivity? **Response:** Translocation of problem (and other) wolves enables the Reintroduction Project to continue progress toward its population goal, while providing relief for local situations.
20. **Comment:** Why doesn't the program incorporate more aversive conditioning of wolves and cattle? **Response:** Aversive conditioning, such as hazing wolves out of an area (i.e. livestock pasture) with rubber bullets, cracker shells, and radio- activated guard boxes (a device that emits loud noises when a collared wolf is in close vicinity of the box), is applied to free-ranging Mexican wolves whenever appropriate in efforts to prevent livestock, human, or dog interactions. It has been used successfully on some occasions, but is most effective on a small-scale, such as deterring specific wolves from calving pastures and residential areas. It is less useful in larger-scale applications, such as keeping wolves away from entire grazing allotments. Other types of aversive conditioning, such as taste aversion to prevent wolves from killing livestock, have been the subject of many research projects in the past, with little, if any, demonstrated effectiveness. More recently, research in Wisconsin evaluated the use of shock collars to assess the effectiveness of reducing livestock depredations which resulted in some success (Schultz et al. 2005). However, this type of aversive conditioning appears to have limited use and may not be practical on a large-scale basis, especially in the Southwest. Based on this, it does not seem prudent to expend resources and efforts attempting to aversively condition wolves using either of these techniques at this time.
21. **Comment:** Why is there lethal control prior to achievement of a fully recovered population? **Response:** The Reintroduction Project is authorized by a Final Rule under Section 10(j) of the ESA. By Federal law, this "nonessential" designation means that wolves released to the wild within the experimental population boundary are not essential to recovery. That is, even if all the Mexican wolves in the wild died, extinction would not occur because there are now sufficient Mexican wolves in captivity. The Final Rule recognized that, as the wild population grows toward levels that contribute to rangewide recovery, situations will occur that require removal of individuals or even entire packs for the overall benefit of the

Recovery Program. Although lethal control of wolves may seem contradictory to recovery, active management of wolves released to the wild is a critical component of recovery. Lethal control, one of the tools for permanent removal, is simply the final alternative in a hierarchy of management alternatives that must be considered when a problem occurs in the field.

22. **Comment:** How many wolf lethal take orders have been issued? **Response:** Since the Mexican wolf program's inception, five permanent removal (which includes lethal take as an option) orders have been issued for eight wolves, including: (1) two un-collared wolves from the Francisco Pack, which were never lethally controlled because they could not be located; (2) Wolf F592 of the Sycamore Pack (shot 05-27-03); (3) Wolf M574 of the Saddle Pack (shot 07-11-04); (4) Wolves M904, M919, and F511 of the Francisco Pack were removed by live trapping; and (5) Wolf M729 of the Ring Pack (shot 06-26-05).
23. **Comment:** There should be no lethal control of Mexican wolves until the population goal (i.e. at least 100 Mexican wolves) has been achieved. **Response:** Lethal control is an essential tool in wolf management, as will be reflected in the final version of SOP 13.0.
24. **Comment:** SOP 13 requires lethal removal of wolves responsible for attacking three head of livestock if the wolves cannot be trapped within ten days. Current control policies resulted in a 20% drop (from 55 to 44 wolves) of the known Mexican wolf population between the end of 2003 and the end of 2004. Implementation of SOP 13 will increase the frequency of capture and lethal control. We object to this operating procedure that could significantly reduced wolf numbers. In addition, we question the absence of any pro-active measures to lower the incidence of wolf-livestock interactions. The Project should first attempt to reduce the potential for wolf-livestock conflicts before resorting to a lethal policy. The 3-Year Review strongly recommended that livestock operators share responsibility for carcass management and disposal on public lands in order to reduce the likelihood that wolves become habituated to feeding on livestock. Unfortunately this was never implemented, nor adequately addressed in the five-year review. In addition, other husbandry practices should be encouraged, such as monitoring cows and calves during calving season. **Response:** See previous Responses (above, in this section) and Responses to written public comment on the 5-Year Review.
25. **Comment:** On SOP 13, can we also consider supporting a no kill program that provides a semi-wild environment for wolves habituated to livestock? This facility would hold wolves in captivity but allow them to have social relationships, pursue prey, while maintaining them as elements in the gene pool. This facility should not be an urban exhibition environment and its purpose should be to try to maintain survival of animals and the gene pool until all recovery goals have been reached and there is a viable, sustainable, free-ranging population. When that goal has been reached, we could decommission the facility and surplus any remaining animals to urban exhibition programs focused on wildlife education. **Response:** See previous Responses (above, in this section) and Responses to written public comment on the 5-Year Review.

26. **Comment:** This draft SOP 13 should be scrapped. It is contrary to the 3-Year and 5-Year Review recommendations. Ironically, it will cause even fewer wolves to be released into NM and more wolves to be removed. If AMOC is determined to adopt something of this sort, the following changes are imperative: 1. Insertion of some category preliminary to nuisance to allow the IFT and AMOC an opportunity to intervene and resolve potential problems before they escalate; 2. Amendments to make it clear that no wolf will be defined as a nuisance and no incident would be defined as a depredation unless the complaining party has engaged in good husbandry practices such as those outlined in Paragraph 2(b) of SOP 13 and recommended in the three-year review; 3. Amendments stating that no take would occur unless the complaining party could demonstrate that he or she had engaged in accepted husbandry practices to minimize wolf/livestock conflicts; 4. All investigations described in Paragraph 1 would include investigations as to whether the complaining party or parties had followed prescribed or recommended husbandry practices to avoid conflict. If they had not, no take would occur. The only allowed agency action would be to work with the complaining party to institute appropriate husbandry practices. These amendments would provide incentives to ranchers to learn to coexist with wolves. The current proposals actually encourage ranchers to create conflicts with wolves. Not to say that they would do so, but why provide the temptation? **Response:** AMOC and the IFT do not need to wait for a nuisance incident or depredation incident to intervene and resolve potential problems before they escalate. AMOC has no regulatory authority by which to require good husbandry practices by public lands grazing permittees or by private lands ranchers. See also previous Responses (above, in this section) and Responses to written public comment on the 5-Year Review.
27. **Comment:** A policy of “zero tolerance” should be adopted rather than a “3 strikes and out”. As it is inevitable that a wolf will eventually cause depredation this program needs to more proactively address these losses and the associated costs in livestock, wildlife and wolves. Anything short of a “zero tolerance” policy is only postponing the inevitable and the sooner it is addressed the sooner the program might become more widely accepted. If the program cannot successfully administer and manage a “zero tolerance” policy it should be abandoned. **Response:** A policy of “zero tolerance” is unacceptable until recovery has been achieved and the Mexican wolf has been delisted..
28. **Comment:** SOP 13 does not address control of wolf hybrids. The removal and euthanasia of yet another hybrid litter of pups in AZ earlier this month, and the identification of unknown wolf-like animals near St Johns and Vernon AZ, is another reason to refocus the program’s policies and try to identify the born in the wild, packs roaming the BRWRA. Efforts must also be made to determine whether male wolves are creating hybrid litters in the coyote population. **Response:** See written responses to the 5-Year Review that address these hybrid issues.
29. **Comment:** The Francisco pack is representative of dangerous but normal wolf behavior, wolves are livestock killers whether exposed to beef in zoo logs as these have been since they cut their first teeth in the pens, or they happen on a carcass somewhere. Removal of Livestock carcasses is a non-solution, it would further burden the small family rancher currently affected by this program it would do nothing to stop the killing of cattle in wolf

recovery areas. **Response:** See previous Responses (above, in this section) and Responses to written public comment on the 5-Year Review that address the carcass removal.

30. **Comment:** The behavior of wolves that have been involved in human encounters is representative of feral pack behavior -- they have shown themselves not to be shy and wary of humans. In fact that language from the Final Rule is now changed to curious, intelligent and interested. Unfortunately people involved in these encounters feel otherwise describing them as aggressive, stalking, attacking. Removal of problem animals is yet another reason for a moratorium on releases. Problem wolves on the ground beget more problem feral wolves. **Response:** See previous Responses (above, in this section) and Responses to written public comment on the 5-Year Review that address wolf-human interaction issues.
31. **Comment:** Several factors contribute to livestock death on the land, the main three causes are, severe drought, disease, or predator involvement in birthing. The high mountain allotments in wolf recovery area are relatively immune to severe drought. When there is drought, it is seldom severe enough to cause the livestock death that pro-wolf but anti-cattle grazing faction would have the public believe. Worse, would have the agencies and our elected officials believe. The disease factor simply does not exist with the availability of modern day vaccines, especially in the clean open, un-crowded mountain ranches. Cattle do not simply expire by the dozens as indicated by several anti grazing proponents of wolf reintroductions. These folks seem bent on using the recovery program as leverage to remove the last of the livestock industry on the Gila and Apache forests. Do not let the program be used this way. **Response:** See previous Responses (above, in this section) and Responses to written public comment on the 5-Year Review.
32. **Comment:** The predator factor cannot be controlled, especially in areas where Mexican wolves are roaming due to regulation on predator control options. The rancher should not be held liable for predator related deaths or other unforeseen and minimal contributors to livestock death in the area. Examples such as oak brush poisoning, new oak leaves freeze in the spring, are eaten by cattle in that state causing death, the situation is very rare. Another example, lightning struck cattle, is also very rare. In both of those situations, the livestock are normally found and disposed of rapidly. At this time, the major predator in the area is the Mexican wolf. As supported by the past two weeks with 6 confirmed kills by the Francisco pack near Reserve NM. 4 grown cows and two confirmed calves one of the calves was killed and not even eaten. In the same area, there are also the numerous missing calves and tight bagged cows on the allotments where the confirmed deaths occurred. This pack is on a killing spree something USFWS told all of us never happens. The owners of the allotments where this year's killings have taken place report that in the past two to three years they have collectively lost at least 100 calves to wolves. **Response:** See previous Responses (above, in this section) and Responses to written public comment on the 5-Year Review.
33. **Comment:** There are enough small family ranching operations paying the feed bill for the wolves, and even at times, providing lodging and food for the employees, of the Mexican wolf program. These contributions are above and beyond our income tax contribution and above and beyond the average citizen's contribution to wolf recovery. My constituency of

120 members deserve to be heard, we live here, we are the local affected interest. We suffer such a disproportionate burden from to this program that we deserve input into policy changes, above and beyond the average citizen. The Council for Environmental Quality regulations on Environmental Justice, make this very clear. Federal agencies must successfully mitigate disproportionately high consequences of their actions on affected low income populations. We are not asking for that much in the way of mitigation. **Response:** See previous Responses (above, in this section) and Responses to written public comment on the 5-Year Review.

34. **Comment:** Your so called SOPs for dealing with livestock killer wolves are ill conceived and reflect absolute and total disregard for the social and economic welfare of the citizens living within your release areas. I am astounded and dismayed that Federal and State agents are capable of such poor and callous judgment when promulgating regulations affecting this program. These SOPs in actual practice constitute continual deprivation of private property without compensation, plain and simple. This is outrageous, immoral and a clear violation of constitutional legal principles. The outworking of these SOPs will be the eventual economic ruin of law abiding citizens engaged in animal husbandry within your release areas. The indirect impact will be the undermining of the economic base of the counties wherein you are perpetuating this travesty of justice. You have a legal and moral responsibility to make every possible effort to keep the livestock killings to an absolute minimum. You have an even greater responsibility to protect the lives of the men, women and children living in your recovery areas from the Mexican Grey Wolf. With regard to livestock and domestic animals, you have failed dismally. With regard to the protection of life, you are walking on the edge of potential disaster of great proportion. **Response:** See previous Responses (above, in this section) and Responses to written public comment on the 5-Year Review.
35. **Comment:** Your so called "3 strikes" policy fails miserably in this regard, and should be immediately countermanded. Fair and equitable management of this program would mandate immediate elimination of livestock killer wolves from this program. One strike. Not two. Not three. The so called "wiping clean of the slate" for a livestock killer wolf after 365 days is the most asinine concept I have ever heard. Your adoption of this policy is absolutely incredulous. A livestock killer wolf should NEVER be returned to any recovery area where they can kill again. **Response:** See Comment 27, above.
36. **Comment:** Citizen range managers should be given full authority to take whatever action is necessary to eliminate a livestock killer wolf, once that status has been determined. This includes the authority to shoot and kill a wolf. The SOP which mandates that identified and verified livestock killer wolves must be trapped and removed from the area only by your agents is absolutely unrealistic from a practical standpoint. The outworking of this policy is the continual slaughtering of livestock during your inept efforts to trap. **Response:** See previous Responses (above, in this section) and Responses to written public comment on the 5-Year Review.
37. **Comment:** Your SOPs to verify livestock kills are excessively and unrealistically stringent. In the real world of law enforcement, probable cause is sufficient to affect an arrest and

deprive a citizen of liberty. According to your procedures evidence that would convict in a court of law beyond a reasonable doubt doesn't seem to make the grade to establish a wolf kill. It is absolutely obvious to anyone familiar with forensic evidence that these SOPs are poorly conceived, excessively restrictive and reek with bias. Your SOPs to verify livestock kills should be in accordance with well established principles used in criminal investigations, and should be based upon the standard of probable cause. **Response:** Livestock depredation by wolves or other wildlife is not a criminal offense, and to apply criminal investigation standards would nonsensical.

38. **Comment:** Your apparent lack of any SOPs for compensation of citizens who are deprived of personal property as a result of this program, and your dependence upon a non-governmental agency to try to placate those who have suffered real losses is absolutely dismal, and speaks volumes. One of the outworkings of this failure is the rapid development of a socioeconomic crisis in Catron County NM. **Response:** See previous Responses (above, in this section) and Responses to written public comment on the 5-Year Review.
39. **Comment:** The threshold of impact to other game populations (before control measures are implemented) should be lowered. The proposed 35% reduction in game populations seems extremely high and arbitrary. This threshold places too much of a hardship on sportsmen and could result in unrecoverable losses to our wild game. Since this is 1/3 of the game populations that sportsmen and several organizations have worked hard at establishing and protecting this taking should not be treated lightly. We believe the threshold should be closer to 15-20% with a funding mechanism to more closely and accurately monitor game populations. The present survey and population estimating system is not adequate to manage these losses and to accurately evaluate the risks to the resource. A funding mechanism or mitigation plan should also be established to reimburse the State and its sportsmen for the losses associated with feeding wolves. The anticipated loss in hunting opportunities and hunt quality should be evaluated in this proposal. Any losses should be mitigated with aggressive management and game population enhancement activities within the wolf recovery area and elsewhere within the State. It must be realized that a robust population of prey species (wild game) is necessary for a successful wolf reintroduction program and that this does not happen accidentally. **Response:** See previous Responses (above, in this section) and Responses to written public comment on the 5-Year Review.
40. **Comment:** The procedures should also include an element that at some point prescribes hunting as a tool for the management of wolf populations. If this program is to be successful the eventual management of this predator should be no different than the management of other predators and the prey species they depend upon. Perpetuating special status is not acceptable or necessary. **Response:** Hunting as a predator population management tool could only be used for wolves under an ESA Section 4(d), which would first require downlisting to threatened status, or delisting, which would first require full recovery. When and if either of these status changes occurs, hunter take will be considered in structuring a more flexible management program that is simply not feasible or legally acceptable under the current endangered status.

41. **Comment:** The definition of depredation to also include the killing of reintroduced or supplemented bighorn sheep. These transplants are not being conducted for the sole benefit of feeding wolves and these losses or the associated complications should be minimized. **Response:** See previous Responses (above, in this section) and Responses to written public comment on the 5-Year Review. Since wolves were first reintroduced in 1998, they have killed one (1) bighorn sheep. This is not excessive mortality by any standard.
42. **Comment:** The proposed SOP 13 on wolf control has been issued during the ongoing 5-year review process, thus creating new proposals and a new public review process within an existing public review process. How can the cooperating agencies possibly have completed a thorough and legitimate analysis as a basis for proposing sweeping changes to the project when the 5-Year Review and analysis has not been completed? It is disingenuous of the agencies to ask for public comments and claim that they value and will carefully consider those comments and then propose project changes before having done so. **Response:** First comes a proposal, then comes a decision. Thus, a proposal must first be made to elicit comment that is used to help make a decision. Still, AMOC notes that the question of whether to enact a moratorium, and the justification for and composition of a moratorium, should have been melded into the pre-existing Five-Year Review, review of relevant SOPs, and development of the Project's Annual Work Plan for 2006. Thus, the need for, and elements of, any future guidelines for new releases will be discussed as AMOC and the Project's IFT construct Annual Work Plans for each year beyond 2006. These documents will be discussed at AMOC's quarterly public meetings in AZ and NM, with ample opportunity for public comment to ensure full consideration of relevant concerns before decisions are made.
43. **Comment:** We do not support lethal management (except in the case of risk of spread of deadly disease) of the wild wolves. Specifically, we do not support the proposed changes contained in SOP13 allowing lethal control measures to be applied to "3 time losers." **Response:** Points taken.
44. **Comment:** We ask you to consider the viability of innovative use of deterrents and conditioning as a method of reducing wolf depredation on cattle (and conceivably, other forms of livestock). It is possible to make adaptations to the current technology used in "shock collars" so that they can be used as a protective device for livestock and a deterrent measure to wolves. I have spoken to a technical representative of a leading radio collar design/manufacture company and discussed the viability of such an approach (from the technical perspective of portability, battery life, and range. (I have not researched the cost aspects, security considerations and the behavioral/social impacts with experts in these areas.) In brief, a transmitter could be worn by livestock and receivers (with shock capability) could be worn by wolves. If the wolves approach the livestock (within a predetermined range) they would be given an audible warning. If they approach closer (within an even closer range) they would be shocked. This method could be applied and "learned" while wolves are in captivity – and carried forward into the wild. **Response:** See previous Responses (above, in this section) and Responses to written public comment on the 5-Year Review.

45. **Comment:** We also ask you to consider the viability of alternative approaches to lethal control for the management of wolves considered to be habituated to livestock predation. Rather than using lethal methods to control “problem” wolves, I propose that a “problem” wolf should be recaptured and deemed unsuitable for re-release. To create a balance in wild vs. captive wolf numbers, a captive wolf could be released in their place. This swap method would help retain the genetic material of the total wolf population while helping manage the size of the captive population. Understanding that the captive wolf will not directly replace the “problem” wolf (in social structure, etc), the method and timing of release would need to be carefully considered. **Response:** See previous Responses (above, in this section) and Responses to written public comment on the 5-Year Review.
46. **Comment:** SOP 13 on wolf control measures appears to completely ignore important findings from the 3 and 5-Year Reviews and proposes no new policies or procedures that would reduce the removal or mortality of wolves or promote changes in livestock husbandry or management practices that would reduce conflicts or increase the compatibility of wolf restoration and livestock grazing on our public lands. To the contrary, the proposed measures would potentially increase removal and mortality rates. We note that the draft 5-year review found that current wolf control methods were adequate which calls into question the need for revisions, especially prior to completion of the 5-Year Review process. The resolution of conflicts between wolf recovery goals and livestock grazing on public lands calls for “novel ideas” and “creative solutions” not more trapping and shooting of wolves. Government wolf control procedures and private compensation programs combine to form a perverse incentive—under existing and proposed wolf control policies, if a rancher wants wolves removed all he needs to do is encourage a conflict between wolves and livestock for which he will be compensated. We’re not suggesting that wolf recovery area ranchers would resort to such tactics, but current policies certainly provide the temptation. The proposed SOP 13 contains no provisions that would encourage innovations in ranching practices that would reduce wolf-livestock conflicts and, thus, reduce wolf removals and mortality. See additional discussion and proposed solutions for resolving this problem in Appendix A. As with the proposed moratorium, we fail to find any compelling justification in support of the necessity, urgency, or appropriateness of SOP 13 as currently proposed, and we recommend that it be rescinded immediately. Any future wolf control policy should be firmly based on the best current data and findings from the 3 and 5-year reviews addressed through the adaptive management process such that proposed solutions promote attainment of wolf reintroduction goals. **Response:** See previous Responses (above, in this section) and Responses to written public comment on the 5-Year Review.
47. **Comment:** Wolf recovery is controversial; and USFWS adopted the “nonessential experimental population” classification under Section 10(j) of the ESA to have more flexibility in finding and applying creative solutions for reducing conflicts while recovering the Mexican wolf. But there is one legally-binding criterion that the agencies appear to be ignoring—releases of listed species under Section 10(j) provisions must “further the conservation” of the species. Based on our analysis presented herein, we conclude that the

“conservation” test (ESA 10(j)(2)(A)) is not being met. **Response:** See previous Responses (above, in this section) and Responses to written public comment on the 5-Year Review.

48. **Comment:** SOP 13 would result in an increase in the removal from the wild and lethal control of Mexican wolves at a time when the population is already small and has even declined due to lethal control actions and removals. While we understand the frustration of livestock producers in the current range of the Mexican wolf, an increase in lethal take and removal of wolves from the wild is likely to stall or reverse any progress that has been made in recovering the Mexican wolf. The conflict between Mexican wolf recovery and livestock producers is made worse by the fact that none of the proposed SOPs addresses the need for producers take reasonable steps to protect their livestock or other domestic animals non-lethally. SOP 13 indicates, under "Criteria for Determining Status of Problem and Nuisance Wolves," that "(h)umans in areas occupied by wolves can help avoid provoking wolf behavior that might require a management response by voluntarily (i.e. these are not legal requirements): ...." What follows is a list of the most reasonable and obvious steps that a livestock producer or pet owner could take to prevent conflicts with wolves. But the language of SOP 13 makes it clear that such obvious, common-sense steps are not currently required of producers and will not be under the Draft Proposal. The increase in lethal wolf control that would occur under SOP 13 is especially inappropriate if landowners within current wolf range are not required to take these common sense precautions before lethal wolf control or removal from the wild can occur. The prompt removal of carcasses and other attractants is known to be of utmost importance in preventing the loss of livestock to predators in general and to wolves in particular. The three-year review specifically recommended that livestock producers on public lands "take some responsibility for carcass management/disposal to reduce the likelihood that wolves become habituated to feeding on livestock." As noted in the Five-Year Review, 91% of Mexican wolves known to have scavenged on dead livestock carcasses were confirmed to have subsequently killed living domestic livestock. Therefore, the removal of livestock carcasses in particular should be an absolute requirement of livestock producers on public lands; further, livestock producers on private lands should be required to take this common-sense step before lethal wolf control or removal from the wild can occur in response to conflicts or losses. **Response:** See previous Responses (above, in this section) and Responses to written public comment on the 5-Year Review.
49. **Comment:** SOP 13 appears to be designed to maximize wolf removal and minimize any required non-lethal techniques that might be feasible prior to resorting to lethal control or removal from the wild. For example, on p. 9 ("Guidelines for Conducting Wolf Control Actions," 3.g.ii.2.a) "(s)econd-depredation wolves will be hazed for a period of up to 7 days and/or trapped for removal to captivity, or radio-collared and immediately translocated or released on-site...." This is problematic because no hazing is required; instead a maximum (but not a minimum) period of hazing is allowed. As a result of this wording, wolf control actions in such circumstances will favor removal from the wild over hazing. If AMOC is aware of scientific research to support this provision (e.g. research regarding the effectiveness of hazing vs. removal and research indicating that an increase in removals will not jeopardize the long-term viability of the Mexican wolf), then such information must be referenced in the SOP. Without scientific support, this provision should be modified such

that hazing is a required component of this management response and must be attempted for a minimum period of time prior to removal from the wild. We understand that capture, collaring, and on-site release is an option in such circumstances under this provision, but there is also no requirement that on-site release or translocation be attempted prior to removal from the wild. Furthermore, in this same section, SOP 13 indicates that any hazing beyond 7 days would require approval through IFT consultation and that "(a)ny such extension request must be well justified, carefully examined, and appropriately documented." But, for removal from the wild, even with no attempt at hazing, no further justification is required and no documentation of factors affecting the likelihood of depredations (e.g. poor husbandry) is required. **Response:** See previous Responses (above, in this section) and Responses to written public comment on the 5-Year Review.

50. **Comment:** SOP 13 does not require the IFT to locate-or even to attempt to locate-surviving dependent pups of female wolves that have been lethally controlled (p. 11, 3.g.v). This provision would not only allow for the orphaning of dependent young-an outcome that would not be acceptable to many members of the public concerned about animal welfare-but would also greatly increase the impact of the removal on the population by taking out, not only a single adult, but also her offspring and the potential for future genetic contribution of these animals to the population. This provision should be modified such that, in the event that a lactating adult female wolf is killed, a systematic search must be undertaken to locate the den and dependent young and to place such young that are not capable of surviving on their own in the captive breeding program for future release. If such pups cannot be placed in a captive breeding program for eventual release, they should be humanely euthanized. There is no justification for failing to even attempt to find offspring of lactating females that are killed and this inaction on the part of the IFT would have implications for the conservation of the population, as well as the welfare of the young. **Response:** See previous Responses (above, in this section) and Responses to written public comment on the 5-Year Review.
51. **Comment:** With respect to wolves outside of the recovery area, SOP 13 would potentially result in more lethal wolf control on public lands than on private lands. In particular, SOP 13 states (3.g.i.3.b) that first-depredation wolves on public lands outside the recovery area "will immediately be trapped for removal" unless pups would be jeopardized. A similar provision is proposed for second-depredation wolves (3.g.ii.3.b), and in this case apparently there is no requirement that the survival of pups be considered in wolf removal. It also appears that SOP 13 would prevent the establishment of packs on public lands outside of the recovery area but within the MWEPA (5.a.i.). No justification is provided for this. Nor is there any justification provided for the removal of wolves found outside of the recovery area (but within the MWEPA), apparently even if such wolves have not caused any livestock losses. In the three-year review, Paquet et al. (2001) found that "(r)etrieving animals because they wander outside the primary recovery area is inappropriate because it ... needlessly excludes habitat that could substantially contribute to recovery of *Canis lupus baileyi*" among other reasons. Considering the high current rate of lethal control and removal and the 13 - 25% decline in Mexican wolves from 2003 to 2004, restrictions on Mexican wolf expansion may jeopardize the Mexican wolf. Paquet et al. (2001) note that restricting wolves to such a small geographical area will hinder the recovery of a self-sustaining, viable population.

Furthermore, removal of wolves from lands that are owned by and managed for all Americans, when such removal is done for the benefit of one specific set of stakeholders, is inappropriate. Wolf removal and lethal control should be minimized, not maximized, on public lands. **Response:** See previous Responses (above, in this section) and Responses to written public comment on the 5-Year Review.

52. **Comment:** This proposal is an open invitation for ranchers to bait wolves with cow carcasses and turn them into problem wolves. Wouldn't SOP 13 open the door for further illegal behavior by humans to kill wolves and blame it on depredation? **Response:** See previous Responses (above, in this section) and Responses to written public comment on the 5-Year Review.
53. **Comment:** Contrast the convoluted guidelines in SOP 13 with the following statement from the 2002 SOP 32, Control of Mexican Wolves, from the section titled Background: "The USFWS Mexican Wolf Recovery Leader or his designee will make the determination if a wolf is to be captured alive or killed. All decisions regarding the capture, relocation, or lethal taking of wolves will be made by the Mexican Wolf Recovery Leader, or the USFWS Mexican Wolf Field Coordinator in his absence, and carried out by authorized personnel under their direction or oversight. In emergency situations necessitating the capture, relocation, or lethal taking of wolves when neither the USFWS Recovery leader or Field Coordinator are available, such decisions for actions involving livestock depredations or problem or nuisance wolves will be made by the USDA WS Wolf Management Specialist or, in his absence, by the AGFD Mexican Wolf Field Team Leader. The latter has decision authority for all other situations requiring emergency wolf management actions when neither the USFWS Mexican Wolf Recovery Leader nor the USFWS Mexican Wolf Field Coordinator are available. They will be informed of such management decisions and actions as soon as possible (pp. 1 and 2 of 14)." Had the drafters of the new SOP 13.0 operated according to the principle, "if it isn't broken, don't fix it," they could easily have recognized the change in circumstances precipitated by the MOU of October 31, 2003, by simply adding the words "or his counterparts in NMDGF and the WMAT, depending upon where the management action takes place," following the words "or, in his absence, by the AGFD Mexican Wolf Field Team Leader," in the section quoted above. In order to clarify exactly who is responsible for a given decision, language should have been added to require a written decision in all cases, signed by the decision maker, with findings as to cause. Under SOP 13.0 it is almost impossible for the interested citizen to identify the actual decision maker amid the overlapping responsibilities of the IFT, AMOC, and the Mexican Wolf Recovery Coordinator. When everybody is responsible, nobody is responsible. **Response:** Responsibility for the Reintroduction Project is clear and unequivocal, as has been stated to the Commenter on several occasions: it rests with AMOC. Placing responsibility with a collective group rather than with a single individual is as fundamental as any element of this representative democracy (e.g. Congress, the Supreme Court, and innumerable Commissions, Councils, Boards of Supervisors, etc. In the case of AMOC, appropriate checks and balances are also provided, through general and twice-annual specific oversight by the AMOC Lead Agency Directors. See also previous Responses (above, in this section) and Responses to written public comment on the 5-Year Review.

54. **Comment:** Both the old and the new control SOPs fail to deal adequately with the problem of minimizing the necessity for controlling wolves by requiring reasonable modifications of husbandry practices and timely removal or liming and tarping of livestock carcasses. Yet here, too, the older version is preferable. Consider the following examples of treatment of attractants under the old SOP and as watered down in the proposed SOP 13.0. First, the old version: “ii. Intentional feeding or attracting of wolves must not have occurred. Undisposed livestock carcasses in an area where depredations have occurred may be considered attractants depending upon local circumstances. The feasibility of and legal requirements (if any) for carcass disposal will be considered (SOP 32, 2002, Criteria for Determining Status of Problem and Nuisance Wolves, 2.d, p. 5 of 14, emphasis added).” In the new version, the text reads: “b. The Final Rule provision to take “nuisance wolves is broad, so the IFT must evaluate each incident on its own merit (see Table below) and discuss it with the affected landowner or permittee and AMOC as necessary to ensure appropriate management response.... Humans also provoke unacceptable wolf behavior that can require management response. Examples of human actions that should be avoided in areas inhabited by wolves include: ...(6) Feeding wolves or otherwise intentionally attracting them. Or...(7) Failing to remove, bury, or render inedible visceral remains or carcasses of livestock,...(SOP 13, 2005, Criteria for Determining Status of Problem and Nuisance Wolves, 2.b. pp. 4 and 5 of 21, emphasis added).” By changing the language from “must not have occurred” to “should be avoided,” the authors of SOP 13 have effectively pulled the already blunt teeth in the original control procedure dealing with untreated livestock carcasses. Again the new SOP moves in precisely the opposite direction from that recommended by the scientists, who said in the Three-Year Review Report: “Require livestock operators on public land to take some responsibility for carcass management/disposal to reduce the likelihood that wolves become habituated to feeding on livestock.” (Three-Year Review Report, p. 67). Rather than weaken admonitions against baiting wolves and attracting them through inadequate disposal of carcasses, the new SOP ought to address the problem by holding harmless any wolf that preys, having first scavenged on carcasses. Such a policy would render moot any arguments that U. S. Forest Service policy does not allow writing carcass removal and treatment requirements into grazing permits. Were this “hold harmless” policy in place on all public lands, permittees would quickly find ways to deal with the carcass problem, instead of fighting it, as they are currently doing. **Response:** See previous Responses (above, in this section) and Responses to written public comment on the 5-Year Review.
55. **Comment:** Eighteen wolves have been killed with no arrests prior to SOP 13. Need to increase enforcement, 20 wolves have been shot and only one successful prosecution. **Response:** Point taken.
56. **Comment:** If SOP 13 had been in existence from the onset, several packs in existence would never have developed, or would have been captured or destroyed (e.g. the Bluestem Pack). **Response:** See previous Responses (above, in this section) and Responses to written public comment on the 5-Year Review.

57. **Comment:** Under the proposed SOP 13, why is a whole wolf pack targeted not just the problem wolf? **Response:** See previous Responses (above, in this section) and Responses to written public comment on the 5-Year Review.
58. **Comment:** Increase the number of depredation incidents allowed. Put depredating wolves on probation and if they don't attack again within a certain time period remove the depredation count. **Response:** See previous Responses (above, in this section) and Responses to written public comment on the 5-Year Review.
59. **Comment:** Wolves are being micromanaged and this leads to their death and loss of health. Implementation of SOP 13 will increase the frequency of capture and lethal control. **Response:** See previous Responses (above, in this section) and Responses to written public comment on the 5-Year Review.
60. **Comment:** Consider the alternative to SOP 13 that includes a permanent holding facility for problem animals; animals are then held for genetic purposes or shipped off for educational purposes. **Response:** See previous Responses (above, in this section) and Responses to written public comment on the 5-Year Review.
61. **Comment:** Is the recovery effort furthered by lowering the bar at which point lethal control may occur? **Response:** See previous Responses (above, in this section) and Responses to written public comment on the 5-Year Review.
62. **Comment:** Does the leg hold trap assure the capture of a defined "problem" wolf? **Response:** No.
63. **Comment:** What justification is there for killing an entire pack in response to livestock depredation, instead of just the alphas or adults? If lethal take must be used, it should only be used for wolves that have been confirmed as depredators. **Response:** See previous Responses (above, in this section) and Responses to written public comment on the 5-Year Review.
64. **Comment:** Why is the language in 2 separate areas of SOP 13 not consistent? The attached appendix containing the Federal rule states (p. 18): "Depredation means the confirmed killing or wounding of lawfully present domestic livestock by one or more wolves. USFWS, WS, or other USFWS-authorized agencies will confirm cases of wild depredation on domestic livestock." This definition is quoted on page 7 of the SOP. This confirmation should be consistently followed throughout the SOP. However, on page 10 under sub item d under item iii, the words "known or likely to have been involved in the third depredation incident" are not consistent with a confirmed depredation, which requires real, not assumed or circumstantial evidence. **Response:** See previous Responses (above, in this section) and Responses to written public comment on the 5-Year Review.
65. **Comment:** Why do none of the proposed SOPs address the need for producers (ranchers) to take reasonable steps to protect their livestock or other domestic animals? SOP 13 indicates, under "Criteria for Determining Status of Problem and Nuisance Wolves" that "humans in

areas occupied by wolves can help avoid provoking wolf behavior that might require a management response by voluntarily (i.e. these are not legal requirements)...” What follows is a list of the most reasonable and obvious steps that a livestock producer or pet owner could take to prevent conflicts with wolves. But the language in SOP 13 makes it clear that such obvious, common-sense steps are not currently required, and will not be under the Draft Proposal. Why? **Response:** See previous Responses (above, in this section) and Responses to written public comment on the 5-Year Review.

66. **Comment:** Why does SOP 13 appear to be designed to maximize wolf removal and minimize any required non-lethal techniques that might be feasible prior to resorting to lethal control or removal from the wild (e.g. hazing)? SOP 13 indicates that any hazing beyond 7 days would require approval through IFT consultation, and that “any such extension request must be well justified, carefully examined, and appropriately documented.” But, for removal from the wild, even with no attempt at hazing, no further justification is required and no documentation of factors affecting the likelihood of depredations (e.g. poor husbandry) is required. **Response:** See previous Responses (above, in this section) and Responses to written public comment on the 5-Year Review.
67. **Comment:** Why doesn’t SOP 13 require the IFT to locate, or even attempt to locate, surviving dependent pups of lactating female wolves that have been lethally controlled? **Response:** Ever reasonable effort would be made to capture surviving lactating pups. The SOP need not require this.
68. **Comment:** Why are there no proactive measures to lower the incidence of wolf-livestock interactions? Incentives to those who participate? **Response:** See previous Responses (above, in this section) and Responses to written public comment on the 5-Year Review.
69. **Comment:** Why are wolves not allowed to wander outside of the recovery area when gray wolves in other parts of the USA are allowed to do so? **Response:** This comment is not pertinent to SOP 13.0. See previous Responses (above, in this section) and Responses to written public comment on the 5-Year Review.
70. **Comment:** If a wolf scratches or bites wolf management personnel in the process of wolf control is that a cause for the wolf/wolves to be euthanized? **Response:** Not necessarily. It would depend on the circumstances.
71. **Comment:** Why does hazing include actions that intentionally result in injury to a wolf? **Response:** Hazing by Project staff is consistent with the Final Rule under which wolf management is conducted. To date, hazing has not resulted in any injuries to wolves.
72. **Comment:** Ranchers should be allowed to shoot wolves caught in the act of depredating livestock. **Response:** Such actions can only take place as allowed by the Final Rule. See previous Responses (above, in this section) and Responses to written public comment on the 5-Year Review.

73. **Comment:** Requiring confirmation of depredation before control actions begin, or for payment of compensation, places an unfair burden on the rancher. The topography of AZ-NM is such that most depredations cannot be found, let alone confirmed as to cause of death. **Response:** See previous Responses (above, in this section) and Responses to written public comment on the 5-Year Review.
74. **Comment:** It is unreasonable to lump all depredations within 24 hours as a single incident. Each animal lost is real, and costly, to the rancher. Common sense should be used to determine whether depredations are part of the same incident, or separate. **Response:** The 24-hour timeframe was reached after extensive discussion in which AZ and NM County representatives and WS participated. It seemed to be the best compromise between treating each animal lost as a separate incident and treating all losses in a longer timeframe as a single incident.
75. **Comment:** The time limits for hazing and lethal take should be removed. The control action should continue until they succeed. **Response:** SOP 13 achieves this, by providing for renewal requests from the IFT for permanent removal actions and by providing the IFT with appropriate authority for hazing actions.
76. **Comment:** The wolf project looks for loopholes to avoid lethal take and other control actions when depredations occur. They must be required to follow procedure and act quickly and effectively. **Response:** This was in fact a problem before AMOC began functioning. It no longer is a problem.
77. **Comment:** All hazing and lethal take responsibilities should be assigned to WS personnel not associated with the wolf project. Experience to date shows that wolf project personnel are either inept, or they are refusing to do their jobs. When given lethal take orders, the person shoots to miss. The same person made statements to the effect that cattle do not belong on public lands and he would be glad to help us remove them. **Response:** See previous Responses (above, in this section) and Responses to written public comment on the 5-Year Review.
78. **Comment:** Killing wolves that responsible for attacking three head of livestock if trapping has does not succeed within 10 days, and immediate killing of wolves if a fourth depredation occurs, is exceedingly prejudicial. A much better practice would be to fund depredation compensation. **Response:** See previous Responses (above, in this section) and Responses to written public comment on the 5-Year Review.
79. **Comment:** We suggest that SOP 13 be improved by incorporating identification of what we call “Probable Incident Areas” (PIAs), and define procedures for undertaking proactive measures in these areas to decrease the likelihood of depredation. PIAs could be identified by the IFT based on factors likely to result in wolf/livestock interactions (e.g. carcasses, sloppy husbandry, lack of monitoring, calving in areas where wolves have localized, denning in calving grounds). Formal identification of a PIA would authorize and direct IFT personnel to intervene to various degrees before wolves became “nuisances” or “problems.” The extent of

the IFT's intervention might be controversial, but there are several very valuable preventative measures that could be undertaken without much resistance. For example, in a PIA, the IFT could immediately approach permittees, describe the likelihood of conflicts and provide information on deterrents and husbandry changes which have proven successful in other areas. The IFT could also provide information on available resources to help implement anti-depredation practices, such as Defenders' Bailey Wildlife Foundation Proactive Carnivore Conservation Fund, EQIP funds, State-provided fencing, etc. Currently, the IFT is not allowed express concerns about "problem areas" outside the Team itself, and this practice must change in order to prevent depredations and resulting wolf mortality and capture/translocation. Formalizing the identification of PIAs with prescribed tasks for the IFT would also enable IFT personnel to intervene in a non-threatening/information providing role before problems occur, which might improve relationships with local livestock producers. The identification of PIAs would also help groups like Defenders direct resources into proactive projects before we are faced with dead livestock and dead wolves. Finally, there may be a way to approach the controversial topic of carcass removal within the PIA context. **Response:** See previous Responses (above, in this section) and Responses to written public comment on the 5-Year Review.

80. **Comment:** With 91% of wolves known to have scavenged dead livestock carcasses subsequently confirmed to have killed domestic livestock at least once, the need for carcass removal is obvious. **Response:** See the revised "scavenged livestock" discussion in the Administrative Component. See also previous Responses (above, in this section) and Responses to written public comment on the 5-Year Review on the carcass removal issue.
81. **Comment:** Carcass removal is simply not an option in wolf control actions. You would have to hire several riders for that task, and work them full time. Even then, they could never find let alone remove all carcasses. Besides, it's not just livestock carcasses that attract wolves to an area occupied by cattle. Wildlife carcasses also attract them. **Response:** See previous Responses (above, in this section) and Responses to written public comment on the 5-Year Review on the carcass removal issue.
82. **Comment:** Your mention of site enhancements in SOP 13 (such as fencing or changes in livestock husbandry) leaves me confused. Do you mean ranchers should develop a breed of killer cows? You've brought the wolves on us, and tied our hands to keep us from taking control action ourselves, and now you want to tell us how to change our livestock husbandry practices to accommodate your wolves? Instead, let ranchers help you count wolves, keep logs of wolf sightings, and when you have a lethal take order allow that permittee who has been affected to take action against the depredating wolf. Not only would that work, it would be cost efficient. **Response:** See previous Responses (above, in this section) and Responses to written public comment on the 5-Year Review.
83. **Comment:** We oppose SOP 13 on the control of Mexican wolves. This measure has no scientific basis. The control protocol will serve to significantly reduce the numbers of wolves already in the population. Given that the most important indexes to population progress are significantly below projections, the opposite effect should be endeavored. There were

projected to be 15 breeding pairs by the end of this year, but in fact the number is at most half that. The censused wolves declined during 2004 by 20% -- from 55 to 44 animals -- while the number projected at the end of last year was 68. And the number on the ground reflects the continuation of releases from the captive breeding population beyond what was projected. Releases (including translocations) have served to mask the unsustainably high number of wolves succumbing to Federal predator control -- while the number of breeding pairs tells the more compelling and disturbing story of how predator control is suppressing population viability. In addition, the proportion of wolves from the Ghost Ranch and Aragon lineages is significantly below what scientists (such as Philip Hedrick, Ph.D.) have described as ideal. It is important, according to Dr. Hedrick, to improve the genetic ratio as soon as possible -- but the moratorium on new releases would prevent that. And control as it already takes place has eliminated key wolves with important genetic characteristics. Reducing the genetic heritage stemming originally from only seven founding animals risks inbreeding depression -- which may already be vexing the population (as possibly evidenced by low litter sizes and body weights). This also poses an unacceptable risk that the wolves will eventually succumb to a host of other maladies that may be incidental to inbreeding depression, including disease. **Response:** See previous Responses (above, in this section) and Responses to written public comment on the 5-Year Review.

84. **Comment:** SOP 13 improperly and deleteriously reduces the flexibility of agency personnel to decide whether special circumstances (including but not limited to genetics) merit greater forbearance in the face of depredating wolves. In at least three circumstances -- that of the Bluestem Pack, the two uncollared and ultimately unidentified wolves in AZ for which death sentences were issued (but not carried out) in 2002, and the Ring Pack alpha female currently -- wolves that had begun depredating stopped doing so of their own accord. But agency personnel would have no options to allow alternate resolutions of a depredation problem if a wolf crosses over an arbitrary number of depredations; they would be forced to capture or kill a wolf potentially prematurely and unnecessarily. **Response:** See previous Responses (above, in this section) and Responses to written public comment on the 5-Year Review.
85. **Comment:** Since variability in estimates of how many wolves in the wild has been used as an excuse for excessive agency control of wolves, and for the moratorium, it should be noted that since 2001 USFWS has insisted that there are many more uncollared wolves than those it can find, and that the next season's radio-collaring will prove the matter. But year after year only a small number of uncollared wolves can be caught and collared -- thus lending strong credence to the possibility that in fact there are few uncollared wolves out there. In addition, this year's wide peregrinations of wolves such as the Aspen Pack sisters and the lone male recently trapped in the Horse Springs area of NM, all of whom remain (or remained in the case of the Horse Springs animal) single with no evidence of mates, argues that the number of uncollared wolves are few and not widely distributed across the landscape; alternately, the population would be increasing exponentially. A biologically conservative approach would be to assume that the population is not significantly higher than can be counted, and the moratorium and SOP 13 will take the population in the opposite direction of what is needed for eventual recovery. We request that the agencies' written response to these comments include an analysis of the likely alternate demographic effects of our proposed moratorium

on wolf-targeted predator control, versus the likely demographic effects of the USFWS proposed two moratoria and SOP 13, versus the likely demographic effects of the regulatory status quo. **Response:** See previous Responses (above, in this section) and Responses to written public comment on the 5-Year Review.