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Subject: Comment on Proposed Revision to the Nonessential Experimental Population Rule for the Mexican Wolf

Reply to: Patrick A. Bray, Executive Vice President, Arizona Cattle Growers' Association, 1401 North 24th Street, Suite 4, Phoenix, Arizona 85008

To Whom It May Concern:

As concerned stakeholders, we are commenting on the June 13, 2013 U.S. Fish and Wildlife Service (Service) proposal to revise the 1998 nonessential experimental population rule (i.e. the 1998 Final Rule) for the Mexican wolf (*Canis lupus baileyi*). The proposal is made pursuant to Section 10(j) of the Endangered Species Act (ESA) of 1973, as amended. The proposal is to allow initial releases of naïve wolves from captivity into New Mexico (NM) and to significantly modify the boundaries for the Mexican Wolf Experimental Population Area in Arizona (AZ) and NM. The proposal stems from, but inadequately addresses, the many obstacles to reintroduction progress and increased social tolerance that all affected and interested parties have endured. These obstacles exist because, since 2001, the Service has repeatedly failed to collaborate or even to work independently to completion on appropriate remedial actions.

We are particularly concerned that the Service proposal to revise the Final Rule:

1. Precedes Service completion of public comment and peer review for its contemporary proposal to delist the gray wolf throughout its range and re-list the wolf in the Southwest as the Mexican wolf, thus recognizing the genetic, ecological and distributional uniqueness of this animal that wildlife agencies and academia have recognized for more than 30 years.
2. Only partially addresses the primary barriers to reintroduction (thus recovery) progress (e.g. 1998 Final Rule, 1998 Mexican Wolf Management Plan and relevant Service reintroduction implementation policy and procedure).
3. Presents the proposed action in context of a new yet unquantified and unjustified population objective that differs from the objective that was lawfully (if speculatively) set in the 1996 Final Environmental Impact Statement and the 1998 Final Rule for reintroduction in AZ and NM. By its own statement, the Service believes that the viability of the wolf population may require “hundreds to over a thousand wolves...for long-term persistence in the wild.” If the purpose for the proposed revision is to achieve

the current population objective for the reintroduction project, the Service cannot propose actions intended to meet a different population objective (i.e. recovery and delisting).

4. Precedes rather than follows the appropriate (required) steps to conduct NEPA (National Environmental Policy Act) compliance for such actions. The Service approach on this proposal utterly fails to meet its own guidelines and standards for stakeholder collaboration and public scoping of issues and alternatives pursuant to even minimal NEPA compliance.
5. Fails to reflect substantive discussion with the State Wildlife Agencies of AZ and NM, and with Tribes and other government cooperators, before moving these issues into public process.
6. Skips the crucial steps of:
 - a. Completing an approved revision of the 1982 Mexican Wolf Recovery Plan that fully recognizes the potential Mexico holds for recovery of the Mexican wolf and which recognizes the subordinate role that AZ and NM must play due to the ecology, natural history, habitat capabilities and historical distribution of the Mexican wolf in the Southwest.
 - b. Completing or deferring to the affected States (and Tribes) to complete Mexican Wolf Management Plans for inside and outside the proposed MWEPA on lands within their respective jurisdictions and authorities.
 - c. Appropriately informing the interested and affected parties of the legal, fiscal and other consequences (i.e. the potential effects or regulatory action or inaction) of leaving specific areas within the current or proposed historical range of the Mexican wolf and/or within or outside the current or proposed MWEPA either uncovered or covered by 10(j) status.
7. Fails to develop a 10(j) proposal through appropriately open, transparent and coordinated regulatory process addressing all aspects of the issues at hand. This autocratic approach is typical of Service Region 2 leadership on Mexican wolf conservation since 2007. There have simply been too many broken promises, failed commitments and back-room deals by Region 2 for us to put much faith in this latest redundant effort to move forward. Had Service Region 2 adhered from 2008 through 2013 to the collaborative interagency approach developed by the States in collaboration with Federal, State Tribal and local government entities and implemented from 2003 through 2007, the entire process of 10(j) rule revision and environmental impact analysis might well have been completed by now. Instead, completion lies at least 3 to 5 years in the future, if it occurs at all. Until the Service rectifies this broken approach and rebuilds a bridge of transparency, trust and confidence with its would-be collaborators and stakeholders in Mexican wolf recovery and reintroduction in the Southwest, such as existed briefly under Region 2 Director H. Dale Hall and Mexican Wolf Recovery Coordinator John R. Morgart, every faltering step will almost certainly be prolonged by unnecessary conflict and litigation with wolf proponents and opponents, and probably with those who, like us, are in the middle, trying to protect our long-term interests public and personal interests while accommodating Mexican wolf recovery and reintroduction. Success can be achieved, but not this way.

Below, we set forth general and specific questions and concerns about the Service's proposal, noting particular deficiencies and errors. We do so in three sections: Legal Issues, Process Issues and Administrative/Management Issues. We believe it is incumbent on the Service to develop and propose acceptable alternatives that address our concerns and those expressed by other stakeholders. The Service obligation under NEPA to find a truly "preferred alternative" cannot be transferred to the public or other agencies as a matter of Service convenience.

Legal Issues

In addition to and in furtherance of comment that we submitted to the Service on September 19, 2013 regarding Docket #FWS-R2-ES-2013-0098, which are incorporated herein by reference, we believe the Service must:

1. Clarify (define through regulation and rule) the true legal status of Mexican wolves that are classified as nonessential experimental (i.e. they have threatened status under the ESA), and concomitantly affirm what management authorities for such species have been conveyed to the States via ESA Section 6 Cooperative Agreements and how those authorities can be enhanced, not restricted, through ESA Section 10(a)(1)(A) and (B) take permits. In crafting the proposed 10(j) Rule, the Service should pay particular attention to its own approach in granting management authorities to the States via: (a) the wood bison draft 10(j) Final Rule; (b) the 10(j) Final Rule for black-footed ferret reintroduction in AZ, (c) the existing ESA Section 10(a)(1)(B) permit to the Arizona Game and Fish Department (AGFD) for black-footed ferret reintroduction in AZ; and (d) its long-standing, ESA-authorized (via Sections 6 and 10) Region 2 recognition of AGFD as the lead implementing agency in bald eagle conservation in the Southwest.
2. Explicitly define in the EIS and consequent 10(j) Final Rule the area in which the Mexican wolf will be considered nonessential experimental, and whether or not that status is legally appropriate for other parts of its historic range (i.e. in Mexico and in the United States north of I-40 and in AZ West of I-17/I-19 and U.S. Highway 89 and north or west of the Colorado River and anywhere north or east of NM). The Service has stated repeatedly that Mexican wolves originating from Mexico must, if they disperse into the United States, be treated as endangered. This might be true under the current 10(j) Rule but court decisions for other species suggest other possibilities that would enable broader management flexibility and greater agency responsiveness to problem situations (e.g. livestock depredation). Toward this end, the EIS and draft 10(j) Rule must give due consideration to court findings in *Wyoming Farm Bureau v. Babbitt*, 199 F.3d 1224 (10th Cir. 2000) (affirming treatment of gray wolves that disperse from Canada into the experimental population area as members of the experimental population) and *Forest Guardians v. U.S. Fish and Wildlife Service*, 611 F.3d 692 (10th Cir. 2010) (affirming experimental nonessential treatment of endangered northern aplomado falcons that disperse from Mexico into the United States).
3. Evaluate through an EIS that mirrors the Service's approach in the 10(j) Final Rule for the California condor, which include reaffirming authority for specific states to manage

listed species and requiring the Service to remove the entire nonessential experimental population if 10(j) status or state management authority is ever diminished or eliminated. See also the Service's parallel approach to a zero occupancy baseline as manifest in various Safe Harbor Agreements and Section 10(a)(1)(B) permits for black-footed ferret recovery.

4. Evaluate whether and how a 10(j) rule or an ESA Section 4(d) rule might be used to enable State/Tribal management of Mexican wolves to contribute toward achieving approved recovery goals, thus achieving conservation purposes and benefits under the ESA while providing more effective, efficient local response to problem situations (e.g. livestock depredation and large wild ungulate population impacts).
5. Make explicit in the Final Rule what type of "Tribal lands" the Service would purport to include under the provision of the proposed rule that would allow for Tribal development of management plans (and/or execution of other wolf management activities outlined in Proposed Rule language on such Tribally-acquired lands that have not been reserved by Congress in Reservation holdings). The Service must appropriately recognize and clarify the differences in types (i.e. legal standing) of land that may be under Tribal ownership, control or management. For example, Tribal trust lands (which include but may not be limited to designated Reservation Lands) are different than fee-simple lands owned by Tribes and the proposed rule is not clear on distinguishing types of Tribal lands as they are presently addressed or referenced in the proposed rule. State wildlife management authorities do not extend to Reservations but they do include lands acquired by Tribes through purchase or lease that are outside Congressionally-established Reservation boundaries.

Process Issues

1. The Service has failed to demonstrate that enlarging the wolf dispersal and release area to include the entire current or proposed MWEPA is necessary to achieve its 1998 objective of a self-sustainable population of at least 100 wolves.
 - a. The draft EIS and the preamble to the draft proposed 10(j) Rule reference that 1998 population objective (at least 100 Mexican wolves), but the draft proposed Rule, without appropriate justification or public process, modifies the Purpose and Need statement to establishing an expanded Mexican wolf population without identifying a quantitative range with lower and upper limits. This suggests a predetermined decision by the Service that the current objective of "at least 100 wolves" cannot be achieved under the current rule. If so, that decision is not based on science, nor does it comply with regulatory process. Mexican wolf population growth since 2007 indicates the "at least 100 Mexican wolves" objective can be reached in the foreseeable future. The 2012 "end of year count" (EOYC) **minimum** published by the Service and its agency cooperators was 75, with perhaps an additional 5 or 10 uncounted wolves present in AZ and/or NM. Given that more than 90 percent of the wild population is now wild-born, it seems likely that within 2 to 5 years the population will reach and possibly surpass 100 to 125 individuals.

- b. Other wolf populations reintroduced by the Service (i.e. gray and red wolves) increased precipitously when they reached 75 to 100 individuals and 10 or more breeding pairs. In short, the Service must establish in the EIS and 10(j) processes that the proposed 10(j) Rule modification and the accompanying EIS scoping are lawful and appropriate in terms of stated Purpose and Need.
 - c. Explicitly state the current numerical objective of “at least 100 wolves” in the proposed amendments to the 10(j) Rule, not just in the prefatory (explanatory) text, and carry it forth as the reintroduction objective for AZ and NM until such time as the Service has appropriately developed, proposed, analyzed and approved a different population objective or set of objectives through completed recovery planning and NEPA and rulemaking processes. The original objective cannot be changed by default.
2. The Service has based its decision to enlarge the dispersal area on reasons not supported by the administrative record or sound science. Collection of data within the AZ-NM reintroduction Project has not been accompanied by rigorous analysis and the available data sets and interpretations have not consistently been shown to be statistically valid. Findings are presented anecdotally and reflect individual and sometimes collective opinion rather than science-based conclusions. The Service has repeatedly failed to encourage and fund research needs identified in Reintroduction Project during reviews in 2001, 2005 and in cooperator discussions through 2013.
3. The Service proposes to enlarge the dispersal area to enable the wolf population to increase beyond what is necessary to meet the established population objective, without a cap on growth, leading to the same untenable situation the Service allowed to develop in Idaho, Montana and Wyoming and leaving State and Tribal Wildlife Agencies and U.S.D.A. Wildlife Services to bear the brunt of funding control programs necessary to bring wolf populations and prey populations back into dynamic balance.
4. The Service has failed to give equal consideration to the impact the proposed revision will have on State Wildlife Agency wildlife management objectives.
5. The Service has failed to seek State or Tribal Wildlife Agency concurrence with its proposed revision to the current 10(j) Rule, which is contrary to Congressional intent and Federal regulation. While amending the ESA by adding Section 10(j) in 1982, Congress expressed its intent that the Service and State Wildlife Agencies agree upon regulations for reintroducing experimental populations, and that changes in such regulations should be made only when the Service has consulted closely with those agencies. Federal regulations and Service policy express the same intent in requiring ESA implementation and particularly the rules for experimental populations to be based on agreement between the Service and State Wildlife Agencies to the maximum extent practicable. *See* 50 C.F.R. § 17.81(d).
6. The Service has promulgated a revised rule and prepared alternatives for the draft EIS without completing the EIS scoping process. The environmental effects of the proposed revision to the 10(j) Rule are uncertain because the Service has failed to identify the

projected wolf population, the area over which it might range and the potential impacts of achieving a population objective that has no upper limit. Without an estimate of the desired future population or even a projected population range, the Service cannot reasonably determine the environmental effects of the proposed action. The Service should not confuse the EIS process by proposing pre-decisional modifications of the current 10(j) Rule. Moreover, both the EIS process and the 10(j) Rule revision process should be conducted on the basis of an approved Recovery Plan) before they are proposed for public comment.

7. The Service should cease its current Mexican wolf “relisting” by proposed regulation and simply reclassify and relist the Mexican gray wolf as the Mexican wolf through administrative action. The Service could then focus on better integration of methods by which to address the current deficiencies in Mexican wolf conservation by initiating EIS scoping for the reclassified subspecies and comprehensively revising the current 10(j) Rule within that EIS process.
 - a. Continuing cooperation and participation in Mexican wolf reintroduction will be predicated upon the ability to direct responsive, effective and responsible management of wolf impacts as provided for through the existing 10(j) population designation.
 - b. Absent this continuing 10(j) management flexibility, public support of Mexican wolf reintroduction in the Southwest, especially among the rural communities and back-country residents who are most directly impacted by Mexican wolf conflicts, will be further compromised and ultimately eroded. Continuing down the current path will certainly impede and could very likely preclude achieving long-term success of reintroduction efforts in the United States.
8. The Service has opted to extend the public comment period on revision of the 10(j) Rule to October 28, 2013 but did not extend for scoping the EIS beyond September 19, 2013. Now the Federal Shutdown has shattered even a semblance of logically sequenced process and has forced cancellation of the one token public meeting in AZ-NM that Service Region 2 deigned to offer (October 4, in Albuquerque NM). Thus, stakeholders had to comment on the draft EIS before they had an opportunity to consider what State and Federal agencies recommended regarding the 10(j) Rule. This disjointed approach seems blatantly contradictory to relevant Service policy and to procedures set forth under NEPA and the ESA.
9. The Service must recognize that how management and by whom will be implemented is as crucial to social tolerance and conservation success as the content of a Proposed or Final Rule. Thus, in proposing 10(j) revision, the Service must clearly depict how it and its agency cooperators have interacted (cooperated and coordinated and resolved disagreements) since 1998 with each other and with the public to effect better wolf management on the ground and to protect the rights and privileges of the public, including sportsmen and livestock operators. This analysis should explore previous administrative and management paradigms within the Mexican wolf reintroduction effort (e.g. AMWG and AMOC) as well as the current Service top-down approach, and how to best provide for: improved agency transparency and openness; ongoing, regular public

engagement opportunities; effective collaboration; increased responsiveness by speeding up effective decision-making; and improved adaptive management processes (including timely resolution of resource, management response and other conflicts). The adequacy of program outreach efforts should be included in this analysis, so they can be made apparent and effective.

10. The Service must develop and analyze a wolf management alternative that places the AZ-NM reintroduction project entirely in State and Tribal hands, with participation by the Service limited to oversight, planning and provision of necessary funding. Authorizing those agencies to manage listed wolves is not unprecedented. With the Northern Rocky Mountain gray wolves, once the wolf population reached a pre-determined objective, each State could manage wolves under a Service-approved plan. State authority to manage wolves occurred at the point a given State determined that wolves were a major cause for not meeting State-approved population management objectives for other species.
11. The Service must rectify its EIS scoping and 10(j) Rule revision proposals use of key Service documents to which the public is not privy. These documents will help shape wolf management and a final revised 10(j) Rule for at least the next 10 to 20 years. These documents, including the Service's' draft revised Mexican Wolf Recovery Plan and its draft Mexican Wolf Management Plan (for outside 10(j) boundaries), should be completed and then be available for scrutiny and consideration while the public develops 10(j) comments. The central issue here is finding the path that leads to rangewide Mexican wolf conservation and management, not just management within a prescribed MWEPA. Management prescriptions for lands outside a MWEPA, as well as those inside it, have potentially significant economic implications for management agencies and for local residents and other stakeholders.
12. The Service must rectify its errors in handling peer review of its proposed delisting of the gray wolf and relisting of the Mexican wolf to ensure that peer review results are available to the Service and the public before EIS scoping ends and before the extended comment period on the proposed 10(j) Rule ends. Peer review comments are crucial to informing stakeholder comment on the spectrum of EIS scoping issues, as well as comment on the proposed and potential content of a new 10(j) Rule.
13. The Service must clarify and extend opportunities for EIS cooperating agencies to develop alternatives to the 10(j) revisions proposed by the Service. Even absent the Federal Shutdown, it is unreasonable for the Service to expect cooperating agencies to develop well-conceived alternatives in a few weeks when the Service has been working on its alternatives since 2007 and has not yet fully developed them.
14. Service must identify and analyze the full spectrum of projected and potential economic impacts of Service-proposed Mexican wolf management throughout the current or expanded MWEPA in which the Mexican wolf occurs or might again occur as a result of reintroduction. Impacted entities include the States of AZ and NM, Native American Tribes, sportsmen, guides and outfitters, other public lands recreationists, livestock

owners and operators, rural towns and local businesses and governments. The potential impacts include, but are not limited to, direct costs (i.e. those resulting from releasing and managing wolves) and indirect costs (i.e. those associated with planning, coordinating and responding to wolf reintroduction and behavior in the wild). The EIS must disclose, discuss and analyze the hidden costs of wolf reintroduction and the management framework imposed through a 10(j) rule, which also include time and money spent by State, Federal, Tribal and local governments to understand, comment on and respond to the Service as it designs and implements its wolf conservation programs. Ergo, the Service must:

- a. Evaluate the costs and benefits of expanding the area within the current MWEPA in which release of naïve (captive) wolves is allowable, the areas in which wolf occupancy is allowed to persist and the areas to which Mexican wolves are allowed to disperse and remain until a depredation problem occurs, a landowner objects and/or residency is established (as through denning activities). As a component of this issue, the 10(j) rule and EIS processes must explore methods by which landowners and livestock operators might receive incentives for tolerating wolf presence.
- b. Provide a meaningful analysis of Mexican wolf impacts on native ungulate populations and of wolf depredation on various species of livestock (e.g. cattle, horses, sheep). These impacts must be projected across the potential numerical range of expansion of the Mexican wolf population, up to and beyond current and potential recovery objectives in AZ and NM. This analysis must define unacceptable impacts to livestock herds as well as to wild ungulate herds, how such impacts can be measured, the means available for prevent and for responding to such impacts and the management responses allowable when and if unacceptable impacts occur.
- c. Rectify the erroneous statement in the Proposed Rule (see page 35737; re: *Federalism Executive Order 13132*) that: “this proposed rule does not have significant Federalism affects. A Federalism assessment is not required. This rule will not have substantial direct effects on the States, on the relationship between the Federal Government and the States, or on the distribution of power and responsibilities among the various levels of government.” It is clearly evident to stakeholders and affected agencies, based on extensive experience with Service application of the 1998 Final Rule, the Proposed Rule will have or perpetuate significant Federalism affects that were not acknowledged in 1998 and which have not been remedied since. The Service will construe the Proposed Rule, as it has construed the 1998 Final Rule, to override authorities distributing power and responsibilities State Wildlife Agencies in AZ and NM that were conveyed to them previously pursuant to ESA Section 6 Cooperative Agreements consistent with Congressional intent for ESA implementation.
- d. Provide information supporting its contention in that same passage that: “In keeping with Department of the Interior policy, we requested information from and coordinated development of this rule with the affected resource agencies in NM and AZ.” Please state the dates, processes and results of such requests and clarify how the information provided by those agencies was used in constructing the proposed rule. We do not believe that assertion reflects the reality of State-

Service “cooperation” from 1998 through 2001 and since 2007. It also masks significant State-Service disagreement in all aspects of Service approach since mid- 2007.

- e. The Service must also clarify its contention in that same passage that: “Achieving recovery goals for this species will contribute to its eventual delisting and its return to State management. No intrusion on State policy or administration is expected, roles or responsibilities of Federal or State governments will not change, and fiscal capacity will not be substantially or directly affected.” The first statement is false because a valid recovery goal has not been set for this species. The second statement is also false, as has been clearly evident in wolf recovery efforts in the Northern Rockies and in Mexican wolf reintroduction since 1998, especially since mid- 2007. The Service autocratic approach to “collaboration” has substantially changed intruded on State policy and administration. Moreover, fiscal capacity is directly affected for State and Tribal wildlife agencies, Federal land and wildlife management agencies, County governments, ranchers and license and permit-tag buying sportsmen due to *increased management costs/burden tied to expanding the size of wolf populations, the area of actual or potential occupancy, the resultant increase in wolf depredation upon livestock and game populations (and resulting revenue loss to hunting license and fee-based agencies) and impacts on economic multipliers well beyond direct measure.*
- f. Service must fulfill its obligation to complete a comprehensive and accurate analysis of economic impacts tied to the proposed rule, which analysis accurately and fully addressed the following (and other concerns as well):
 - i. Direct/indirect impacts to game populations and impacts to wildlife-based recreation in AZ/NM, including the economic benefits/multipliers to local economies that realize benefits that are tied to these wildlife resources.
 - ii. Game permit revenue loss to state wildlife agencies.
 - iii. Impact to wildlife-based recreation and ancillary/support enterprises and businesses – outfitters, taxidermists, meat processors, hotels, restaurants, gas stations, etc.
 - iv. Direct/indirect impacts realized by States and State Wildlife Management Agencies from Proposed Rule and resulting management actions and requirements:
 1. Increased management costs/burden tied to proposed rule and expanding wolf project itself.
 2. Increased management costs/burden extending beyond Mexican wolf project operations to include increased demands on monitoring impacted wildlife populations, addressing wolf/human/livestock conflicts (including proactive measures), providing adequate public engagement on management activities/plans, etc.
 - v. Direct/indirect impacts to livestock production/producers in AZ, including appropriate multipliers.
 - vi. Direct/indirect impacts to local municipalities and government entities that are required to coordinate and monitor wolf project, and provide any local presence/oversight in addressing issues tied to wolves/wolf project.

15. The Service must identify and analyze projected and potential economic impacts of its proposed Mexican wolf management program outside the proposed MWEPA, to which Mexican wolves might disperse and require management response. These impacts (costs) include, but are certainly not limited to: depredation losses (livestock and pets, including herding and guide dogs); modifications of livestock husbandry, herding and grazing programs to accommodate wolf presence; livestock owner/manager time and travel in the course of preventing or reacting to depredations; livestock owner/manager time/travel required for coordination with wolf and land management agencies; and changes in or outright loss of business for outfitters and hunting guides. The impacts on agencies include, but again are not limited to: costs associated with meetings and other coordination with the Service on wolf-related issues; field and administrative staff required for wolf management; and large ungulate (prey) population shifts (including local changes in seasonal presence but also potential declines in herd size and hunter opportunity). Also, broadening wolf reintroduction and management to areas in AZ that have significant state land holdings could cause a significant negative impact (i.e. decreased value or increased cost of managing lands leased for grazing) on the State Land Trust, which is primarily dedicated to supporting the state's education system.
16. The Service must present, consider and apply current economic impact information available from the Northern Rockies (e.g. Idaho, Wyoming and Montana) and the Western Great Lakes (e.g. Minnesota, Michigan and Wisconsin). That information is crucial to understanding the potential impacts of a Mexican wolf population that reaches and perhaps eventually surpasses any approved recovery objective for AZ and/or NM.
17. In conjunction with 10(j) rulemaking and EIS process, the Service must examine and identify the guidelines and procedures by which private individuals can appropriately be authorized to non-injurious harass a wolf that is actively engaged in nuisance or other unacceptable behavior. It must also further evaluate and identify the guidelines and procedures by which livestock operators and their agents can appropriately be authorized to capture or kill a wolf that is actively engaged in acts of depredation on livestock or pets, or which has been identified by the Service as a repeat depredator of sufficient frequency that removal is appropriate.
18. The Service must clarify through the EIS and the draft Proposed 10(j) Rule technical issues such as, but not limited to: quantitative recovery objectives overall (rangewide) and for AZ, NM and Mexico; whether an AZ population of Mexican wolves could ever be self-sustaining, or whether dispersal or translocation from and to NM and Mexico will always be necessary (e.g. for genetic management purposes); the need for genetic infusion into the wild population and an evaluation of whether naïve releases have any measured effect in terms of shifting the genetics of the wild population; how and when the wolf population in each State is estimated; whether the annual EOYC (end-of-year count) is a census, survey or an estimate (with confidence intervals); the definition of breeding pair and how it allows for mate replacement within a calendar year; how young-of-the-year pups are accounted for in the annual count; whether the current approach to the annual count is statistically reliable or should be modified; whether and how annual

EOYCs are or could be linked to provision of incentives to livestock operators to further wolf conservation goals while decreasing the need for management removals; guidelines for avoiding habituation of wolves that are being held in captivity prior to planned or potential release; how, when, where and by whom naïve or wild-born or wild-experienced Mexican wolves may be released to the wild; definition of what constitutes a depredation incident (i.e. not just how many animals are killed or injured but how proximate the depredations must be in time and space to count as a single incident) and how such incidents relate to required or discretionary wolf removal; clarify whether livestock operators are required to implement proactive depredation-avoidance measures before incentives or compensation funding can be provided, or whether such actions are voluntary and independent of incentives and compensation programs; clarify who verifies legal presence of grazing livestock and how they verify it (relative to depredations); clarify which agency or agencies conduct investigations to confirm or refute claims of livestock depredation; thresholds and methods for temporary and for permanent removal of depredating and nuisance wolves; clearly state the laws pertaining to ownership and removal or destruction of livestock carcasses on public, state, tribal and private lands.

19. The Service must provide a basis for requesting public trust that the proposed revision will truly expand the authority of livestock owners to take wolves that kill or wound livestock on public lands, provided the wolf population reaches 100 with at least six breeding pairs (see #9 under Management/Administrative section, below). This take authority is based on the obvious economic harm of livestock depredation. No less important, however, is the impact that wolves have on State and Tribal ungulate populations. In practice, however, despite assurance in developing and approving the 1998 Final Rule, the Service has denied State or Tribal wildlife agencies in AZ and NM similar authority to manage wolves at the point at which they have an unacceptable impact on wildlife resources or lawfully-present livestock.
20. To present a meaningful analysis of, and argument for, revision of the 1998 Final Rule, particularly in terms of area of coverage and the population objective for said area, the Service must identify and analyze Mexican wolf conservation efforts in Mexico and the economics thereof. The Service considers (and is re-listing) the Mexican wolf in Mexico endangered and is: (a) addressing that area in its yet-to-be-released draft Recovery and management plans; (b) providing captive-bred and wild-captured wolves to Mexico for captive breeding and for release in the AZ-NM border environs (e.g. along the Sonora-Chihuahua border in northern Mexico); and (c) is providing equipment, supplies and training to Mexico for its wolf field conservation efforts. These actions all have bearing on the need for, and the extent of, proposed wolf recovery and conservation efforts in AZ-NM. Thus, it is essential that agencies and the public know how wolf conservation in AZ-NM complements the parallel actions in Mexico, so they collectively feed toward attaining the overall objective of rangewide recovery. Fully 90% of Mexican wolf historical range is in Mexico; therefore, based on science and reason, the EIS must reflect the indisputable fact that ***Mexican wolf recovery cannot be achieved solely in the United States.***

Management and Administrative Issues

1. The Service has failed to demonstrate that enlarging the wolf dispersal and release area to include the entire Mexican Wolf Experimental Population Area (MWEPA) is necessary to achieve its objective of a self-sustainable population of at least 100 wolves that has been identified in the subject proposed 10(j) rule. The Service has based its decision to enlarge the dispersal area on reasons not supported by the record and enlarging the dispersal area will allow the wolf population to increase beyond what is necessary to meet the established population objective.
 - a. The Service stated in both the 1998 Final Rule and the current Proposed Rule to reclassify the Mexican wolf as a subspecies that the BRWRA is adequately sized to achieve the current recovery goal (i.e. from the 1982 Mexican Wolf Recovery Plan) of at least 100 wolves and that habitat curtailment is not affecting the Mexican wolf. Thus, the Service concedes the BRWRA remains adequate and appropriate for the reintroduction project.
 - b. However, while recognizing that a larger dispersal area will allow for a larger wolf population, the Service does not explain to what extent the wolf population will increase if permitted to expand into the entire MWEPA or an expanded MWEPA. Other than stating that the enlarged dispersal area will allow for “numeric” and “spatial” expansion, the Service provides no evidence that enlarging the dispersal area is necessary to achieve its population objective of a self-sustaining population of at least 100 wolves, which it also acknowledges “is appropriate as an interim population objective,” again begging the question of what the “real” population objective is, whether overall or for AZ and/or NM.
 - c. If expanding the dispersal area is not necessary to achieve the current population objective set forth in the Proposed Rule, the proposal to enlarge the area must be intended to meet a different population objective. The Service believes that the viability of the wolf population may require “hundreds to over a thousand wolves...for long-term persistence in the wild.” If the purpose for the proposed revision is to achieve the current population objective for the reintroduction project, the Service cannot propose actions intended to meet a different population objective (i.e. recovery and delisting).
 - d. The Service claims that allowing wolves to disperse permanently throughout the MWEPA will promote “numeric” and “spatial” expansion of the population and this will assist in reaching the population objective. The record, however, does not support the position that allowing wolves to disperse throughout the MWEPA is necessary to achieve the population objective.
 - e. The Service has already stated that the BRWRA is sufficient to meet the population objective for the experimental population because the BRWRA provides adequate habitat and prey populations. Threats other than the sufficiency of the existing BRWRA are cited as reasons the wolf population has not achieved the population objective set forth in the 1998 rule. These threats are illegal shooting, inbreeding and small population size. Because the Service has identified threats other than the habitat size as reasons hindering population growth, the proposal to enlarge the habitat area for the purpose of meeting the population objective appears unsupported and arbitrary.

- f. The Service must ensure that consideration of outside and internal boundaries for wolf management areas is accompanied by rigorous evaluation of the costs of wolf management efforts (e.g. monitoring and removal) that would be necessary for such boundaries to have meaning from a management perspective. Establishing an outer or inner boundary necessarily means that it will be “enforced” through active monitoring and management, both of which have significant fiscal impacts.
2. Proposed revision to allow initial release of wolves within the entire BRWRA and eliminate the existing primary and secondary recovery zones:
 - a. Depending upon the criteria used to evaluate initial releases, the potential exists to have releases occur closer to concentrated areas of human habitation in rural communities in AZ and NM. Experience with naïve wolves released from captivity indicates they have higher potential for nuisance-related incidents than do wolves dispersing naturally after establishment in the wild. To the extent that these incidents materialize, public “tolerance” at the local level for reintroduction would be further compromised.
 - b. Adult wolves initially released under this proposal will likely result in dispersal beyond the current BRWRA into unoccupied parts of the MWEPA, which presents a concurrent need to apply increased wolf monitoring and management attention across a greatly expanded area in AZ and NM.
 - c. Wolves distributed over a broader landscape will require much broader and higher level of resource deployment (fiscal impact) to perform associated management actions, including monitoring, trapping/collaring, investigating depredations and to evaluating the effects of predation on elk and deer populations.
 - d. Management and monitoring techniques would likely need to be modified to accommodate an expanded area of releases (from current management approaches) due to a larger area of responsibility to maintain comparable levels of service in addressing nuisance/problem wolf incidents. Operational modifications to the project might include:
 - i. Adopt a less intensive (individual wolves) and more extensive (population/pack) monitoring and management approach (i.e. cease taking pup photos and completing weekly counts and instead move to survey un-collared packs).
 - ii. Use more costly satellite collars with near real-time location reporting.
 - iii. Use more camera traps, scent posts, DNA hair snares and other non-invasive methods to increase monitoring efficiency/effectiveness.
 - iv. Employ dedicated, experienced trappers on a seasonal basis to capture and collar targeted packs/wolves.
 - v. Incorporate use of existing field-station personnel to assist with applicable project operations to improve overall project efficiency.
 - vi. A potential benefit of the proposed change would be to allow initial release of Mexican wolves into the existing BRWRA in AZ and NM, including the Gila Wilderness, which is not widely grazed by livestock and has the potential for fewer wolf nuisance interactions due to the distances from human habitation.

- vii. This proposed revision (expansion of release area) was advanced by the Adaptive Management Oversight Committee for the Mexican Wolf Reintroduction Project in 2003-2007 and would take pressure off the relatively small Primary Recovery Area in AZ and associated stakeholders in Greenlee County, who have, to date, singularly experienced all initial wolf releases and the issues that come with naïve wolf management and nuisance related issues.
- viii. This proposed change holds the potential to increase the genetic profile in the overall Mexican wolf population, and would present opportunities to expand use of cross-fostering operations throughout the BRWRA in AZ (now limited to initial release areas of BRWRA). Genetics of free-ranging wolves could possibly be better managed and there would be less justification for allowing problem wolves that are deemed “genetically valuable” to remain free-ranging if they displayed undesirable behaviors in the BRWRA - they could be more easily replaced via initial releases across BRWRA.
- ix. As noted in the Proposed Rule, implementing this proposed change might allow the Reintroduction Project to release more wolves, improving opportunities to achieve the prime objective of attaining a minimum self-sustaining population of 100 wolves in the BRWRA with greater management flexibility than which exists under the current primary/secondary zone framework. However, the extent to which naïve wolf “problems” might offset those gains is unknown.
- e. Project Budget Implications:
 - i. If the project boundary for initial releases and translocations remained within the current BRWRA, the proposed change would not likely adversely impact State or Tribal Wildlife Agency ability to implement existing management philosophy with the existing budget and IFT resourcing. The current IFT structure is capable of implementing management accompanying initial releases in the existing BRWRA in AZ (essentially the Springerville Ranger District in AZ).
 - ii. If the boundary of the BRWRA were expanded, as proposed under the Service 10(j) revision options, State and Tribal Wildlife Agency ability to manage wolves through existing procedures and existing IFT resource and budget levels would be greatly compromised, due to increased demands across a larger BRWRA. Immediate increases in cost would be associated with travel from the Alpine Field Office to proposed initial release areas to address management activities and increased flight time to document and manage initially released wolves.
- f. Proposed revision to allow wolves to disperse outside the BRWRA and occupy areas within the MWEPA.
 - i. A primary consideration regarding suitable wolf habitat is the presence of adequate prey densities. This proposed change would allow wolves to travel to and use areas within the MWEPA that might not support adequate levels of native ungulate populations. Primary examples would include state trust lands north of the Apache Sitgreaves (A/S) and portions

of the Tonto and Coconino National Forests in AZ that support low-productivity elk and deer populations. If wolves are allowed to occupy and persist in these areas, either native ungulate populations are exposed to the risk of being significantly reduced and/or wolves will have a corresponding need to direct predation to domestic livestock populations in these marginal areas.

- ii. Under this proposed revision, wolves would be allowed to naturally disperse into and potentially occupy state trust lands and public lands having lower ungulate/native prey populations on a year-round basis, assuming such wolves colonize in these more marginal areas. This would increase the likelihood of interactions between wolves and domestic livestock and humans, as there are significant levels of year round domestic livestock on state trust lands and an increased distribution of communities and human habitation across the MWEPA.
- iii. Wolves that are currently established in AZ use State trust lands north of the Apache-Sitgreaves National Forests on a limited seasonal basis, following elk off forest lands during the winter as they continue to use elk as their primary food source. With the onset of spring, these wolves will typically follow elk back onto forest lands and not persist on winter range.
- iv. If wolves are allowed to colonize in areas having more marginal native prey-base, they will have a higher tendency to turn to domestic livestock as prey and create unwanted depredation behavior/habits and generate accompanying adverse economic impacts.
- v. This proposed revision raises the specter of wolves, which have naturally dispersed within the MWEPA, moving outside the MWEPA into areas that are beyond historical Mexican wolf range and/or into areas that will require immediate management response/attention on the part of Reintroduction Project personnel.
- vi. The existing 10(j) designation allows the MWEPA to serve as a buffer area, beyond the BRWRA, that allows for direct management of dispersing wolves. Allowing wolves to naturally disperse and colonize throughout the MWEPA would eliminate existence of a buffer 10(j) management zone in which to provide project personnel space (and time) to mobilize management actions directed at wolves dispersing beyond designated reintroduction and occupancy areas.
- vii. No management buffer area or transition zone exists that would provide increased management flexibility in mobilizing an IFT response to these situations. State and Tribal Wildlife Agencies and involved and affected stakeholders will be required to haze wolves away from nuisance and depredation situations and petition the Service for a removal order or a take permit to allow for removal of wolves under Section 10(a)1(a) permit (which Service practice since mid-2007 has ensured will include no provisions for lethal removal in cases where problem wolf incidents may be severe/frequent).
- viii. Such dispersals will draw resources from primary management operations and place increased management burden and financial drain on wolf

management project, to the extent that these management incidents will increase in frequency beyond the ability to handle them within the limits of available resources.

- ix. Many areas outside the BRWRA but within the MWEPA are not appropriate for wolf colonization or occupancy due to high human populations, high road densities, high public recreation/activity footprint on public lands, high potential for interaction with dogs, increased potential for human-caused mortality upon dispersing wolves. The DEIS process should analyze and identify areas within the MWEPA where wolf dispersal and reestablishment are not appropriate or necessary for long-term sustainability and viability of a wolf population based on these types of conflicts – and accordingly outline practical mechanisms for managing wolves that may disperse within these MWEPA conflict zones.
 - x. A potential benefit of this proposed change would be to allow natural dispersal of Mexican wolves from the existing wild wolf population into other portions of the MWEPA, and these wild dispersing wolves might be less likely to engage in nuisance related behaviors that usually occur with naïve wolves that are initially-released from captivity.
 - xi. The proposed revision would also allow wolves to functionally use areas outside Federal forest lands (i.e. State trust lands) on a seasonal basis or for dispersal activities associated with prey movements and would allow the existing wolf population to expand across a larger area than it presently occupies. If these dispersals and occupancy did not create unwanted conflicts (depredations, nuisance, game impacts), this might allow the Reintroduction Project to achieve the stated objective of attaining a minimum population of at least 100 wolves more quickly (than if all wolves continue to be confined to the BRWRA).
- g. Project Budget Implications:
- i. It is difficult to predict the level of natural wolf dispersion that might be encountered within the MWEPA over the short/long-term under the Proposed Rule but it is clear that if wolf dispersion within the designated MWEPA occurs it would negatively impact State and Tribal Wildlife Agency ability to deliver comparable levels of wolf management, based on existing funding levels and 10j management framework. For comparison, to implement the current Reintroduction Project in the existing BRWRA of AZ, using the existing IFT infrastructure:
 1. AGFD currently spends its entire annual Section 6 allocation from the Service management activities associated with Mexican wolf reintroduction. AGFD receives approximately \$312,000 more from the Service and provides approximately \$104,000 from State Heritage funds as a required match to these Section 6 funds.
 2. AGFD receives an additional grant from the Service of \$175,000/year for Mexican wolf management. It has also received a grant of approximately \$45,000 from the Service to conduct helicopter counts and captures associated with the EOYC. (Current IFT activities, existing funding levels and anticipated funding

requirements for an average year of Mexican wolf management activities are outlined in Table A – at end of this summary.)

3. If AGFD chose to sustain comparable levels of wolf management activity across the entire MWEPA where wolves are likely to naturally disperse under the Proposed Rule, it would require a substantial increase in the current level of Federal and State funding and resourcing capacity to effect that management.
 4. Costs that would increase immediately would be employee travel associated with efforts to respond to wolf reports and incidents outside the current BRWRA, followed as necessary by trapping efforts and expanded telemetry flights to monitor any newly established wolves.
 5. If wolves dispersed and colonized more broadly within the MWEPA over time, this could require establishment of one or more additional field offices or bases of project operations to provide adequate management across the range of wolf activity. Project management costs beyond increases in personnel, infrastructure and other operational needs would also increase in proportion (yet to be determined) to the degree to which wolves naturally dispersed more broadly within the MWEPA.
3. Proposed revision to remove small portion of Texas from 10(j) MWEPA.
 - a. The same rationale used by Service in justifying the proposal to remove small portion of Texas from the MWEPA can also be applied to areas in AZ within the MWEPA that also support marginal habitat and native prey base for Mexican wolves. Examples include western AZ counties within the I-10/I-40 MWEPA corridor that hold limited habitat and native ungulate populations.
 4. Proposed revision to remove designation of White Sands Missile Range Wolf Recovery Area as a management option for Mexican wolf reintroduction.
 - a. This proposed revision was supported and advanced by AMOC in 2005.
 - b. The same rationale that the Service uses to justify the proposal to remove White Sands Missile Range from the MWEPA can also be applied to other areas in AZ and NM within the MWEPA that also support marginal habitat and native prey base for Mexican wolves. Notably, because of such deficiencies these areas have not been identified for Mexican wolf releases under the current 10(j). Examples include western AZ counties within the I-10/I-40 MWEPA corridor that hold limited habitat and native ungulate populations.
 - c. A potential benefit of this change would provide improved focus of project implementation and planning across entire range of reintroduction, by excluding areas that provide minimal contributions to the project.
 5. Proposed provision under rule to develop and implement Service-approved management actions/plans on cooperating private/tribal lands within the MWEPA, including provisions for initial releases, translocations and proactive conflict measures; and capture/removal of Mexican wolves if requested by tribal government.

- a. The Proposed Rule is not clear on the types of “Tribal lands” that would be included under this provision of the rule, thus failing to recognize the differences in types (legal standing) of land that may be under Tribal ownership, control and management in AZ or NM. For example, Tribal trust lands (including but not limited to Congressionally-established Reservations) are different than fee-simple lands owned by Tribes, with concomitant differences in State authorities over such lands.
- b. When a willing private landowner might be interested in undertaking wolf release/translocation actions on their private lands, this proposed change could result in individual landowner actions creating unwanted and unmitigated impacts to adjoining landowners or public lands that would otherwise not be integrated into Mexican wolf reintroduction activities. Similarly, such private lands management activities, depending on where they occurred within the MWEPA, could create impacts upon larger areas of National Forest or State trust lands that might be more susceptible or sensitive to wolf nuisance or depredation situations.
- c. The proposed revision does not identify or address any criteria the Service will use to determine relative suitability of habitat and prey base on private/Tribal lands that might be considered under this provision. Without evaluating private lands based on reasonable habitat/prey criteria (at a minimum), this provision could create unintended and unwanted wolf conflicts within the MWEPA – and beyond, if these wolves disperse.
- d. The Mexican Wolf Livestock Coexistence Council is grossly underfunded and is challenged to sufficiently fund currently participating livestock producer loss and conflict avoidance measures. Inclusion of additional private lands in Mexican wolf reintroduction efforts will compound these funding problems. Should the Service be indirectly forcing impacted private landowners or livestock producers to seek funds to support proactive management efforts for wolves that area released/managed on private lands that generate these types of unwanted losses/impacts? When the Council was created, the Service Region 2 Director committed to securing the funding required for effectiveness through personal ambassadorship with private foundations and through stipulated Congressional appropriation. That development burden seems to have been passed to Council members and it would grow under the Proposed Rule.
- e. Any private or Tribal land plans developed by the Service should be vetted in some reasonable fashion (formal cooperators at minimum) and go through a reasonable public hearing process before they are finalized and implemented, given the impacts and implications to adjoining jurisdictions/government interests.
 - i. Further, any such private/tribal plans should be coordinated with the Coexistence Council to ascertain whether funds are available to incorporate proactive management methods or if other wolf/livestock management concerns exist before a private land plan is approved.
 - ii. Affected Counties and local municipalities (including Tribal communities, governments) should be part of the Service administrative/legal process for evaluating wolf management on private lands, based on the noted

- conflicts that need to be evaluated as a part of implementing any such wolf management plan.
- iii. Service approval of a private landowner plan to release or manage wolves is subject to State and Tribal Wildlife Agency concurrence.
- f. A potential benefit of including additional acreage that contributes to wolf reintroduction efforts across the MWEPA is that it might result in dispersing or even reducing wolf impacts and activities that might otherwise continue to be concentrated within the BRWRA. The value of such private/Tribal management areas will depend on the location, size and natural productivity of noted private lands (or Tribal lands), and the juxtaposition of those lands in relation to the BRWRA. Again, reasonable habitat and prey base evaluations/criteria must also apply to these lands (and accompanying management plans).
- g. Project Budget Implications:
- i. Depending on implementation of this provision on private lands, this proposed change could have a significant impact on the scale and range of wolf management activities. For example, if a private landowner on the outer edge of the MWEPA allows for initial release of wolves on their land, it would likely result in wolves moving off private lands onto adjoining lands outside the MWEPA. This would require a management response by the IFT to return dispersing wolves into the MWEPA.
 - ii. With respect to State perspective on areas where presence of Mexican wolves would be allowed, this provision presents the potential for wolves to be released into areas that are not acceptable, or that might not be suitable or sustainable on a long-term basis from a scientific, social, economic and/or political standpoint.
 - iii. Initially released naïve wolves require close monitoring and a higher level of management attention after release. Also, naïve/captive wolves have demonstrated a higher propensity for requiring proactive management actions to avoid nuisance/depredation situations. Based on this record, IFT operations are likely to be impacted incrementally to address situations that might occur as a result of expansion of Mexican wolf management actions to additional private lands within the MWEPA.
6. Proposed revision to identify Section 6 of the Act as authorizing language for “take” for State wildlife agencies with authority for managing Mexican wolves under the nonessential experimental rule.
- a. Full Service Region 2 recognition of the States’ Section 6 authorities is long overdue. To fully establish these authorities, the States would need to develop for Service approval “an adequate and active conservation plan” (management plan) for the Mexican wolf that would describe all management actions and resolve questions about take of wild wolves.
 - b. Under the proposed action, Section 6 take authorities are made clear under CFR 17.31: “(b) In addition to any other provisions of this part 17, any employee or agent of the Service or of a State conservation agency which is operating a conservation program pursuant to the terms of a Cooperative Agreement with the Service in accordance with section 6(c) of the Act, who is designated by the

respective agency for such purposes, may, when acting in the course of his official duties, take those threatened species of wildlife which are covered by an approved cooperative agreement to carry out conservation programs.”

- i. The Proposed Rule must identify Section 6 of the Act as authorizing language for take pursuant to 50 CFR 17.31 for State Wildlife Agencies with authority to manage Mexican wolves under the nonessential experimental population rule.
 1. “If the Service or an authorized agency (*not defined in Proposed Rule*) determines that a Mexican wolf presents a threat to human life or safety, the Service or the authorized agency may kill the wolf or place it in captivity”
 - ii. *Authorized Personnel*: Individuals or personnel authorized by the Service may take any Mexican wolf in the nonessential experimental population in a manner consistent with a Service-approved management plan, special management measure, conference opinion pursuant to:
 1. ESA section 7(a)(4),
 2. ESA section 6 as authorized pursuant to 50 CFR 17.31 for State agencies with authority to manage Mexican wolves,
 3. Or via a valid permit issued by Service under 50 CFR 17.32.
 4. Such “take” may include capture and translocation of Mexican wolves that:
 - a. Prey on livestock, attack pets or domestic animals other than livestock on private or tribal land,
 - b. Affect game populations in ways that may inhibit further Mexican wolf recovery,
 - c. Are considered problem wolves,
 - d. Endanger themselves by their presence in a military impact area,
 - e. Need aid or vet care,
 - f. Or must be taken for authorized scientific, research, or management purposes.
 5. May use leghold traps and other effective device/method for capturing or controlling Mexican wolves to carry out measure that is part of Service approved management plan (notwithstanding any conflicts with State law).
 - c. State Wildlife Agency time is required to administer Section 6 authorities, permits and processes with the Service. The Proposed rule would provide administrative clarification to the current Final Rule.
7. Proposed revision to clarify that an individual (“*Any person or other entity*”) can take wolves in specific circumstances and under specific conditions.
- a. This proposed revision, as written, attempts to articulate differences in allowable “take” between *Any person or other entity* and *Authorized Personnel* and will likely result in confusion within agencies and on the part of the public as to the circumstances in which an individual can legally take a wolf. The Proposed Rule does not clearly enumerate or identify the conditions under which the Service

would issue and administer these permits. In addition, provisions in the Proposed Rule imply development of additional administrative processes that will be implemented to appropriately manage deployment of the proposed revision. The Reintroduction Project does not need more Federal process and red tape.

- b. The proposed revision attempts to provide legal flexibility/cover for individuals to provide effective defense against harmful wolf action, but differences in allowable individual take continue to exist between circumstances involving incidents on private lands versus those that occur on public lands. As it relates to allowable take, the differences between what is allowed on public land versus what is allowed on private land have been a continuing source of confusion under the 1998 Final Rule and would continue to be a source of confusion under the Proposed Rule.
 - c. A potential benefit of this proposed revision is it reiterates that private individuals may take wolves in self-defense or in defense of lives of others, and further notes that the Service or an authorized agency may kill/remove wolves that are determined to present a threat to human health and safety. In addition:
 - i. The proposed revision further notes circumstances under which private individuals, and not just agency personnel, are allowed to take wolves that are part of the nonessential population. As specified in the Proposed Rule, this revision may facilitate the development of “approved” wolf management plans for wolves that occur on private lands and Service-approved “special management measures” and “take” permits for individuals managing livestock on federal grazing allotments.
 - ii. The proposed revision might facilitate extending management options to the public and might prove useful as a vehicle to improve productive coordination with the public, as long as the attendant Service conditions and administrative processes are practical and clear and executed in appropriate case-specific timely fashion.
 - d. Project Budget Implications:
 - i. The proposed revision will involve development and deployment of Service administrative process related to monitoring reports of individual take incidents, and to further manage conditions under which individual take may occur. Because it involves Service process and not State Section 6 or Section 10 authorities under ESA, this proposed revision is expected to have minimal impact to State or Tribal’ wolf management budgets.
 - ii. All cooperating and affected agencies will find it necessary to dedicate substantial time and resources to explaining provisions of the Proposed Rule and any new Final Rule to the public as a part of ongoing operation of the Mexican wolf reintroduction project.
8. Proposed revision identifies *Allowable take* for Federal agencies and *Authorized Personnel* modified to provide improved clarification, from 1998 Final Rule.
- a. *Authorized Personnel* may take Mexican wolf in the nonessential experimental population “in a manner consistent with Service-approved management plan, special management measure, Section 7 conference opinion or Section 6 authorization for State wildlife agency”, noting Service oversight over the

implementation of *Allowable take by Authorized Personnel*. The proposed revision provides important administrative clarification, but does not necessarily create an improved management framework for dealing decisively and promptly with problem wolf situations.

- b. *Allowable take by Authorized Personnel* (individuals/personnel authorized by the Service) would be subject to approval of Service, which has demonstrated general aversion to taking aggressive/timely action to address problem wolf incidents in the past. In addition, Service has not been willing to use lethal take as a tool in managing problem wolves.
 - c. This proposed change would be beneficial to the States, Wildlife Services and other authorized IFT personnel as it would define and authorize the allowable take of Mexican wolves to include take, capture, translocation of Mexican wolves as a part of project operations. This revision was primarily developed to provide for coverage for Wildlife Services personnel who in the course of official activities would not be in violation of the ESA if they take a Mexican wolf.
 - d. Project Budget Implications: This proposed revision serves primarily as an administrative/legal clarification for cooperating agencies involved in the Mexican wolf project/IFT and should not translate into any major operational changes that will impact State or Tribal wolf management budget.
9. Proposed rule revision to determine when permits would be issued to Livestock owners or their agents to allow “take” of Mexican wolves from “6 breeding pairs” to “100 Mexican wolves” to be consistent with population objective established in Rule.
- a. In conjunction with 10(j) rulemaking and EIS process, Service must examine and identify the guidelines and procedures by which other private individuals can appropriately be authorized to non-injurious harass a wolf that is actively engaged in nuisance or other unacceptable behavior. Further evaluate and identify the guidelines and procedures by which livestock operators and their agents can appropriately be authorized to capture or kill a wolf that is actively engaged in acts of depredation on livestock or pets, or which has been identified by the Service as a repeat depredator of sufficient frequency that removal is appropriate.
 - b. The Service must identify and analyze methods and means of avoiding and mitigating or minimizing Mexican wolf depredation on livestock, pets and wild ungulates, including identification of realistic methods by which to fund and implement such programs over the long-term, preferably over a 20-year planning horizon because it is unlikely the next federal Mexican wolf management framework will be modified within that span of time.
 - c. Although this proposed change revises how Service would issue permits to allow livestock owners/agents to take wolves engaged in the act of killing, wounding or biting livestock on public lands, it fundamentally fails to provide (prevents) responsive management options to livestock owners/agents that are experiencing wolf depredations while they are occurring and the wolf population remains below 100.
 - i. The new provision would require that the minimum population level 100 wolves within the BRWRA be met before the Service would issue take permits to producers on public lands to address wolves that are in the act

of killing their livestock; and the rule is not clear on how frequently this population estimate is updated for purposes of administering this provision under the rule.

- ii. Until the 100 wolf threshold is achieved, this requirement will restrict the ability of livestock producers to implement any action to protect livestock from wolves – regardless of the severity or frequency of loss that is being incurred by the livestock owner as a result of wolf depredation. If wolf population levels are determined once/year (as is current practice), this would mean producers would have to wait up to a year before a permit could be issued assuming the 100 threshold is met.
- d. Because of this void in providing a more responsive problem-wolf management capability, this proposed change would not work toward building stakeholder tolerance of Mexican wolf reintroduction. Problem wolves in a nonessential experimental population, whether they are part of a total population of 5 or 300 should be subject to sufficiently responsive management in order to effectively mitigate undesired conflicts and to systematically work toward achieving improved public acceptance of wolves on a shared landscape (knowing that responsive management is being applied when wolves misbehave).
 - i. An example of a counterproductive situation that would arise if this proposed change were adopted would be the presence of an older non breeding pair of wolves or older aged single wolf that is not contributing to the prime objective of attaining a population of 100 wolves, yet may be engaged in regular depredation activities on public lands while the population remains below the 100 wolf objective.
 - ii. Continuation of wolf depredation behavior while the Service or cooperating agencies evaluate removal of an offending wolf via an approved Service removal order further presents costly circumstances for livestock producers that encounter such losses. The existence of any wolf population threshold will continue to remove the option for stakeholders to directly address problem-wolf issues when they are occurring.
 - e. Maintaining proactive and effective wolf management tools is critical to building stakeholder confidence in the process of reintroducing wolves to historic range, and limitations that prevent the deployment of available tools may serve to undermine stakeholder confidence in the process/project.
 - f. In a larger sense, if the program fails to be responsive to managing wolf impacts on livestock or wildlife populations; the credibility of 10j as a strategy will falter. The public will not accept and continue to be distrustful of cooperating agency efforts, and will not view 10j as a positive, incentive oriented strategy to restore imperiled wildlife to unoccupied habitat.
 - g. Counties, local communities and associated stakeholder groups are likely to most directly oppose problem-wolf management restrictions stemming from the 100-wolf threshold for issuing take permits to livestock producers. The socio-economic impacts tied to livestock/wolf conflicts (depredations and other losses) are most directly realized in rural communities within the reintroduction area.
 - i. The Proposed Rule and EIS should analyze alternative that allows issuing permits on a case by case basis to allow for the consideration of specific

cases involving geographical variation in the level of depredation activity and/or breeding status of wolves. Individualized approaches allowing management of chronic depredation behavior by specific wolf/wolves (that generate adverse economic/social impacts) should not be superseded by thresholds working independently of undesirable wolf behaviors that cause conflict.

- h. Biological argument could be made that the number of breeding units serves as a viable indicator of population status and vigor, especially for a colonizing/expanding population. More emphasis is placed on reproductive activity of the population rather than an absolute population number which could be comprised of mostly non-reproductive dispersers and other wolves that do not productively contribute to the population (beyond their own census). A total population size still needs to be estimated every year and still could be used as part of the decision making process regarding the issuance of take permits, but a more frequent update of wolf population levels would be needed in order to effectively manage such a permitting process.
 - i. Project Budget Implications: An accurate wolf population estimate will become a focal point for management and will likely require increased survey effort by the IFT (flight time, ground surveys, etc.), which could become more complex and expensive if areas of wolf occupation are expanded.
10. Proposed “due care” provisions that clarify/identify prohibitions for take such that taking a Mexican wolf with a trap, snares or other capture device within Mexican wolf range is prohibited and will not be considered unavoidable or unintentional take, unless due care was exercised to avoid injury/death to a Mexican wolf – parameters defining “due care” for trapping activities outline in proposed revision.
- a. The Service needs to fully explore issues related to live-trapping of wolves and other species of wildlife by agency personnel and the public on public, private, state and tribal lands. Appropriate levels of incidental take by agency and sport trappers must be explored and evaluated in the EIS and protected in the 10(j) Rule. The Service must define its intent and the methods by which that intent can be realized; agency employees and others must be appropriately protected from prosecution for their participation in lawful actions.
 - b. It would be equally appropriate for the Service to put as much detail into defining “due care” in addressing management responses to livestock depredations and unacceptable game/wildlife-recreation impacts from wolves as they have done for trapping/snaring activities under this proposed rule change.
 - c. AZ law does not currently allow personal (private) use of leg hold traps on public lands. As such, this proposed change would not likely impact trapping activities for a majority of our constituents.
 - d. If wolves were allowed to expand their occupied range to parts of the State where large blocks of private lands exist and where trapping activities regularly occur and are viable, then individuals that are engaged in trapping activities will be required to alter their trapping equipment to comply with this proposed change. This would likely require a moderate to extensive cost to the individual to alter existing traps and trapping methods.

- e. This proposed change would set the precedent of allowing the consideration of endangered species management considerations to alter State regulations governing take of wildlife (trapping activities). This would be viewed as “Federal overreach” and create added/undue burdens to constituents that are involved in trapping efforts across the State.
 - f. A potential benefit of the proposed rule revision is that “due care” provisions might limit unintended take/injury of Mexican wolves, which has been reported in the past (wolves missing toes and suffering other trap related injuries).
 - g. Project Budget Implications: Proposed revision would create the need for State, Tribal and other cooperators to educate the trapping public on potential trapping impacts to Mexican wolves and approaches to avoid problems with unintentional take and minimize likelihood of incidental take of Mexican wolves while conducting lawful trapping activities. Some additional cost to those agencies might occur, in the form educational costs to inform our trapping constituents. Any such costs would not be compensated by the Service.
11. Proposed rule revision to establish a new requirement to conduct a one-time evaluation of the 10(j) Rule and wolf population 5-years after Final Rule issuance. Service will still conduct a status review of the listed species once every 5 years as required under ESA.
- a. This sounds good, but will it really happen given the Service record of completing required reviews, plans, etc. since project inception? The Service has, to date, demonstrated a consistent record of failing to adhere to required review timelines on the Mexican wolf project.
 - b. This 5-year review provision will be used by groups opposed to nonessential experimental designation of Mexican wolves to push for removal of 10(j) designation altogether, and move to fully protected status. Any elimination of MWEPA/10(j) might also open doors to Mexican wolf expansion across a much broader range in the Southwest, including areas that are not historical range.
 - c. If Mexican wolf population counts continue to fall below established objectives at the time of the 5-year review, and if recovery efforts in Mexico continue to lag in terms of contributing tangibly to subspecies recovery, pressures may exist to push for expanded release/dispersion areas in AZ and NM (or to eliminate 10(j) all together – above).
 - d. Potential benefit of revision is value of completing a timely review of 10(j) provisions and their relative effectiveness and practicality, and to further provide an opportunity to evaluate and quantify impacts of 10(j) rule to agency stakeholders and constituents.
 - e. Project Budget Implications: As has occurred in the past on project reviews, State and Tribal Wildlife Agency are likely to be enlisted to support analysis of the Proposed Rule and its management implications. This is likely to be a one-time expense of personnel time/travel and not an ongoing direct expense against the IFT/wolf project operational budget.
12. Proposed revision to define “Public land” to include land owned, managed or under the administration of a State or Federal agency.

- a. AZ law and the AZ State Land Department do not view State trust lands as public land, nor do they identify State trust lands as providing any direct role in supporting recovery of endangered species. These lands are held in trust to generate revenue for educational purposes and are not considered or actively managed as public lands in a manner comparable to Federal public lands. The economic or market-value impact to State trust lands in AZ stemming from this proposed wolf management framework has not been accounted for in the Proposed Rule and needs to be adequately analyzed by the Service as a part of the EIS process.
 - b. As stated in the Proposed Rule, Service intends to work with cooperating “public land” management agencies to effect any accompanying Mexican wolf management actions occurring on those “public lands.” In these cases, management actions might include imposing temporary public access and disturbance-causing activities tied to release pens, active dens (denning season) and rendezvous sites as needed to promote wolf reintroduction objectives. Would State trust lands in AZ within the MWEPA be subject to these “public land” management activities/requirements?
 - c. This proposed change would potentially allow for management of wolf activities on AGFD-owned lands and would potentially include Tribally-managed state trust lands (fee simple lands) within the MWEPA (e.g. Hopi 3 Canyon south of Winslow). Wildlife management authority has not been transferred to Tribes under this agreement to allow Tribes to manage State trust lands.
 - d. By classifying State trust lands as part of the “public lands” involved in the wolf conservation effort, this revision may advance assumptions that these areas are appropriate habitat for Mexican wolves. This definition/provision does not take into account that the primary factor in determining appropriate wolf habitat is available prey. While State trust lands are important for wolves to use for dispersal corridors and seasonal use of native ungulates, a majority of state lands do not have large and consistent populations of native ungulates present throughout the year to allow for a viable population of wolves to be present on a year round basis.
 - e. Select State trust lands may provide important opportunities for wolf dispersal from occupied territories in AZ to occupied territories in NM, and, in such cases, may contribute to meaningful Mexican wolf reintroduction efforts with the BRWRA/MWEPA.
 - f. Clarify that in AZ State lands are not the same as public (Federal) lands and the Service must account separately for the economic and other impacts of Mexican wolf recovery to them (as well as the impacts of any management or mitigation measures proposed).
13. Proposed rule management option/alternative to move southern boundary of MWEPA to the Mexico International Border in AZ and NM.
- a. To date, Mexican wolves in the existing BRWRA have been shown to persist consistently in areas supporting viable and productive populations of elk. The majority of the area between the International Border and I-10 in AZ and NM does not have significant elk populations, which would mean that any wolves

occupying these areas would rely on other native prey ungulates (or livestock) for food. Depending on the level and duration of wolf occupation/use of this expanded 10(j) area over time, the potential for unwanted impacts upon either game or livestock populations would be much higher than for other areas having much better habitat and native prey populations.

- b. Much of the land ownership in this proposed expanded 10(j) area consists of greater proportions of private and state trust land compared to the federal/public-land dominated BRWRA. Livestock production is a prominent land-use in this proposed expanded 10(j) area and wolves that may occupy this area are likely to be predisposed to higher incidents of livestock depredations, which would require accompanying management responses/actions to document impacts and reduce or manage these types of situations. In addition, native prey in this part of AZ largely consists of isolated whitetail deer or other native ungulate populations that are not suited to sustaining wolf populations over an extended period.
- c. Willing landowners having private lands in this portion of AZ-NM could use their lands for initial wolf releases under the proposed rule revision to allow for development of private-land wolf management plans. This would likely be a rare circumstance, however if a private landowner in this area were able to develop a Service-approved plan to implement wolf releases or translocation activities in this area of the State it may lead to accompanying nuisance and depredation issues – and corresponding wolf management responses on the part of the IFT. Moreover, State and Tribal Wildlife Agencies have authorities regulating how and by whom wildlife may be released to the wild and Service-approval does not abrogate those authorities.
- d. Nonessential experimental 10(j) designations convey greater management flexibility in managing wolf conflicts within the 10(j) area (Mexican wolves outside the MWEPA/10(j) will presumably but not necessarily hold fully protected status), but decisions involving actions to address wolf conflicts would still reside with Service and be subject to its more liberal wolf management philosophies and approaches (especially as it relates to addressing problem wolf incidents in a direct/timely manner).
- e. This option was advanced by AMOC for the Mexican wolf reintroduction project and would allow for improved connectivity between wolf populations in the BRWRA and Mexico while maintaining management flexibility that is tied to nonessential experimental population designation. AGFD has identified wolf recovery in Mexico as critical to overall recovery of Mexican wolves, and to providing an important complement to the much more limited contributions that AZ and NM can make toward recovery.
- f. By extending 10(j) status for wolves in this portion of AZ and NM, management flexibility under this rule (as opposed to much more limited management options in dealing with wolves having fully protected status outside the MWEPA/10(j)) would also be available to State and Tribal wildlife agencies and other key stakeholders in managing wolves in this portion of the States.
- g. Any wolves traveling up from Mexico into AZ or south out of the BRWRA toward Mexico would be subject to management activities outlined in the 10j rule. From a management standpoint, 10(j) designation and the management flexibility

it provides is superior to having full protection under the ESA extended to wolves traveling into AZ from Mexico.

- h. The Proposed Rule provides the opportunity for State Wildlife Agencies to develop a “Service-approved State Mexican wolf management plan” that can define “unacceptable impacts from wolf predation on game populations” within the 10(j) area. To the extent that such an approach is acceptable and practical to the States, this provides a potential avenue for them to establish wolf management parameters in these more marginal habitat/native-prey abundance areas (which could include thresholds for wolf impacts upon game populations, triggers that initiate responsive management actions based on mere wolf presence, etc.).
 - i. Under this same State management plan opportunity or the opportunity for developing an Alternative as a part of the DEIS engagement process. Any Alternative proponents may be in a position to advocate for limited dispersal of wolves only on state and private lands in this expanded 10(j) portion of the state, while jointly advocating for the timely capture and translocation of wolves that may colonize and attempt to establish territories in these more marginal wolf dispersal zones. However, the Service has provided limited timeframe and opportunity for these “Alternative” exploration and development processes to be fully explored by the States and their stakeholders.
 - j. Project Budget Implications:
 - i. Depending on the number of wolves that may disperse through or become established in this proposed 10(j) expansion area, this management alternative holds the potential of significantly impacting the States’ ability to manage Mexican wolves across an expanded 10(j) area. Attempting to address this expanded 10(j) area while operating under existing IFT resourcing/funding levels would not be viable.
 - ii. AGFD currently allocates its entire ESA Section 6 allocation from Service (and accompanying Department non-federal match) on the implementation of management activities associated with the Mexican wolf reintroduction project within the existing BRWRA. Any significant expansion of wolf dispersion and/or colonization within an expanded 10(j) area will require corresponding increases in budgets and IFT in order to affect responsible management programs to accompany this expanded MWEPA.
14. Proposed rule revision management option to expand BRWRA to include more National Forest lands in AZ (Sitgreaves Forest Districts, and Payson, Pleasant Valley, Tonto Districts of Tonto National Forest) and NM (Magdalena District of Cibola NF).
- a. The Service stated in both the 1998 Final Rule and the current Proposed Rule that: it intends to reclassify the Mexican gray wolf as a subspecies; the BRWRA is adequately sized to achieve the recovery goal of at least 100 wolves; and habitat curtailment is not affecting the Mexican wolf. The Service concedes the BRWRA remains adequate and appropriate for the reintroduction project.
 - b. Mexican wolf dispersal into and persistence within the expanded BRWRA areas of Sitgreaves and Tonto National Forests will result in incremental mortality rates in native game/ungulate populations, which will result in increased adverse

economic impacts tied to big game hunting and wildlife-based recreational activities in AZ.

- c. These options would result in obvious expansion to and impacts upon State and Tribal Wildlife Agency capacity for managing Mexican wolves. Under existing IFT staffing levels and wolf project operational framework, it would be impractical to attempt to maintain existing management capability across this proposed expanded BRWRA.
 - i. Currently, the area of the BRWRA in AZ that is available to actively manage for wolves is the Apache Unit of the Apache/Sitgreaves National Forest (A/S NF) which encompasses 1912 mi². The proposed additional National Forest Management units in AZ and their corresponding areas referenced in this option are: Sitgreaves Unit of A/S NF = 1385mi² ; Pleasant Valley Ranger District (RD) on the Tonto National Forest (TNF) = 683mi² ; Payson RD on TNF = 723mi² ;Tonto RD on TNF = 841mi².
 - ii. The total area added to the existing BRWRA in AZ under this proposed Alternative is 3632mi², which represents more than doubling the BRWRA in AZ. Areas within the BRWRA would be available for initial releases of naïve wolves, translocations and natural dispersal/colonization of Mexican wolves. The current location of the Mexican Wolf Project Field Office in Alpine AZ would require significantly increased travel times associated with management activities occurring across an expanded BRWRA and it would be likely that the Department would not be able to maintain current levels of management focus/responsiveness (as outlined in the project's Standard Operation Procedures or other operational practices) in tending to the multitude of project activities such as managing initial release/translocation efforts, responding to nuisance/depredating wolf reports, completing weekly and monthly monitoring, trapping and collaring wolves, implementing proactive management activities, maintaining stakeholder contacts/relations, etc. Absent a corresponding and significant expansion to existing IFT operations/logistics, anticipated impacts to the current operational structure as a result of the proposed revision would include:
 1. Increased response times to reports of nuisance wolf incidents associated with initially released or translocated wolves into the new areas;
 2. Increased response time to investigate depredation incidents;
 3. Increased costs associated with per diem charges for travel related to wolf management activities in the new areas;
 4. Increased costs associated with expanded telemetry flights to monitor wolves in the new areas;
 5. Reduced levels of responsiveness to local stakeholders within the existing occupied wolf range on the Apache National Forest in AZ;
 6. Reduced levels of AGFD IFT personnel support to the WMAT (or other Tribes) regarding wolf management activities on tribal lands;

7. A significant increase in the level of funding would be required to deploy proactive management activities across an expanded BRWRA.
- d. These options, if approved, would allow for the initial release of wolves from captivity and the translocation of wolves from within the existing population on the BRWRA into an expanded BRWRA in AZ. Interchange between wolves on the BRWRA and the proposed new areas on the Tonto and Sitgreaves Forests will likely occur primarily through the Fort Apache Indian Reservation (FAIR). The White Mountain Apache Tribe is a sovereign nation and has chosen to participate in the reintroduction effort of Mexican wolves on their lands under a Service-approved tribal management plan. The Department recognizes that managing an expanded population of Mexican wolves that includes the proposed BRWRA expansion areas (north and west of the FAIR), will only be viable if the WMAT chooses to remain a partner in the Mexican wolf reintroduction project because of the habitat/range connectivity that the FAIR provides to the BRWRA.
- e. The proposed new areas on the Tonto NF contain Ranger Districts that have year round livestock grazing allotments. This type of grazing system will require more intensive proactive management efforts to reduce wolf/livestock interactions and depredations. Since the start of the reintroduction project in 1998, there have been more confirmed livestock depredations in areas of the BRWRA that have year-round livestock grazing allotments than areas that have seasonal grazing regimes.
- f. If Mexican wolves became established in the proposed expanded BRWRA, there is an increased likelihood of yearling wolves dispersing from newly established packs in the expanded BRWRA. These younger dispersing wolves have higher propensity for creating nuisance situations or coming into contact with domestic dogs in and around areas of human habitation within the expanded BRWRA – which would include communities such as Show Low, Clay Springs, Heber, Forest Lakes, Young and Payson. Incidents of wolf/dog hybridization have been documented in three instances since the 1998 start of reintroduction efforts in the BRWRA and every case involved initially-released naïve female wolves dispersing into proximate areas of human habitation.
- g. Inclusion of the Sitgreaves National Forest unit in the BRWRA would pose a challenge to wolf persistence as this unit of the A/S National Forest contains an open road density of approximately 2 miles of open road/mi² or 2770 linear miles total. Areas of high road densities have been correlated with high wolf mortality due to increase incidents of unlawful take.
- h. A potential benefit to this proposed management option is that significant portions of the proposed BRWRA expansion in AZ contains higher populations of native ungulates (elk) than other parts of AZ that support elk populations. Accordingly, these proposed BRWRA expansion areas hold the potential of supporting a self-sustaining population of Mexican wolves. Mexican wolves currently appear to be persisting in areas of the BRWRA that contain high to medium elk densities and elk have been demonstrated to be the primary prey used by Mexican wolves in the current BRWRA.
- i. Depending upon the final number of Mexican wolves existing (or being allowed to be self-sustaining) across designated wolf range in AZ, an expanded BRWRA

may allow for an overall lower density of wolves/packs resulting in a dilution of adverse wolf impacts (to game, livestock, human tolerance, etc.) as long as wolf populations can be appropriately managed at these “balanced” levels across wolf range in AZ.

- j. Project Budget Implications:
 - i. The proposed alternative to expand BRWRA in AZ would significantly impact the Department’s ability to manage Mexican wolves within AZ under existing project funding and IFT resourcing levels.
 - ii. AGFD currently spends its entire allocation of Section 6 funding from the Service to manage Mexican wolf reintroduction. The Department receives approximately \$312,000 from the Service for ESA Section 6 wildlife eligible management activities, with a corresponding non-federal match of \$104,000 being allocated from AZ Heritage funds. The Department also receives a grant of \$875,000 over a five year block of time (\$175,000/year) from the FWS for existing Mexican wolf management activities within the existing BRWRA. We also have recently received an additional grant of approximately \$45,000 from FWS to conduct management related helicopter counts and captures associated with the end of year population count effort across the existing BRWRA.
 - iii. If the Department chooses to retain the same level of wolf management activities in the expanded areas under this option, an increase in the current level of funding the Department ultimately directs to the wolf project will be required. As wolves are initially released and become established in the proposed expanded BRWRA, the Department will be required to allocate necessary IFT resources to the development and implementation of initial release plans, as well as to handling, monitoring and management of the newly established wolves as required by current IFT operational protocols (see Table A at end of summary).
 - iv. In addition, this option increases the demand for services from the Department, while at the same time reducing the revenue available from tag sales (see financial analysis) that underwrites conservation activities undertaken by the State wildlife agency.

15. Proposed rule revision management option to replace term “depredation” with “depredation incident” to mean “the aggregate number of livestock killed or mortally wounded by an individual Mexican wolf or a single pack of Mexican wolves at a single location within one 24-hour period, beginning with the first confirmed kill or injury.” Compared to 1998 Final Rule “depredation” definition that means “the confirmed kill or wounding of lawfully present domestic livestock by one or more wolves.”

- a. No justification for this proposed alternative was presented by the Service in the Proposed 10(j) revision. Service did note that the proposed definition change would guide ongoing depredation investigations and monitoring of wolf depredation incidents. This results in a more liberal accounting of depredation incidents which favors existence of depredating wolves/packs on landscape at the expense of producers who encounter corresponding losses of individual livestock. The proposed definition change will modify depredation incident tracking process

but does not improve overall project management approach in addressing wolf behavior/patterns that create those incidents.

- b. By changing the definition as proposed, this may cause stakeholders suffering multiple livestock losses by Mexican wolves during a single event (24 hour period) to claim that the Mexican wolf project is not providing appropriate and necessary response to problem-wolf situations (depredations). Because “depredation incidents” tracked by Service would potentially replace individual livestock “depredations”, any associated management response to livestock-depredating wolves would have the potential of being postponed because of the difference in tracking/logging depredations.
 - c. Service has, to date, demonstrated extreme reluctance to affirmatively respond to livestock depredations in cases where the Department and other project cooperators have advocated for more direct or expedited wolf removal actions (i.e. lethal removal), and this proposed alternative will serve to further exacerbate this gap in management philosophy toward handling problem-wolf situations.
 - d. The proposed change to this definition is very similar to the definition for depredation incident that was contained in S.O.P. 13 as developed by the 2003-2008 Adaptive Management Oversight Committee for the Mexican Reintroduction project. The Department supported this approach during the period when the SOP revision was adopted by the AMOC, although S.O.P. 13 was later nullified by a consent decree negotiated between FWS and plaintiff’s (CBD, et al) in 2010.
 - e. The proposed definition defines more typical/realistic situations involving wolf predation behaviors and does not serve to eliminate management flexibility aimed at modifying wolf patterns prior to initiating wolf removal actions. Ultimately, the ability to mobilize management action, including removal or legal take of wolves that are repeatedly depredating on their livestock, is an essential element of developing and maintaining stakeholder trust in the wolf management process – irrespective of how “depredation” is defined in rule.
16. Proposed rule revision management option to allow take of wolves on private or tribal land by pet owners when wolves are in the act of attacking pets (subject to other conditions to be determined by Service).
- a. In order to assure that this provision would be used by the public to justify the take of Mexican wolves, some level of accountability and administrative record keeping would need to be in place to confirm that a pet was attacked. This could increase the workload for the IFT and Service in order to perform these increased investigations and tend to associated administrative processes.
 - b. The proposed alternative is limited to protecting pets on private land, but does not extend to situations that may involve wolf attacks upon pets on public lands, which continues to create concern among some segments of the public.
 - c. A potential benefit of this proposed alternative provides an opportunity to allow residents living in remote locations within the BRWRA to immediately respond to wolf attacks on pets on private lands, an alternative and lawful response that does not exist under the existing rule.

- d. Some may support extension of this management concept to responding to pet attacks on public lands, since the incident reporting conditions would be similar for those incidents occurring on private lands. Alternatively, opponents to this provision will state that people opposed to wolves will abuse the provision as a cover/means for purposely killing wolves under the guise of pet-protection/defense.
 - e. Unless Department personnel are required to investigate and determine cause of injury or death for pets as a part of administering this proposed option, this provision would likely have minimal implication to the Department's wolf management budget and project operations. Alternatively, if Department/IFT personnel are enlisted to support these types of private lands incident investigations, personnel time would be directed into these activities at the expense of other wolf management activities.
17. Proposed rule revision management option to include provisions for issuance of permits on private/tribal lands within the MWEPA to allow *Livestock owners or their agents* to take (including kill or injure) any Mexican wolf that is present on tribal or private land (subject to conditions established by Service)
- a. The proposed revision of the 10j rule identifies provisions for the issuance of permits on private and tribal lands anywhere within the MWEPA to allow for the lethal take of wolves that are present on such lands, but issuance of such permits would be restricted to conditions such as:
 - i. Minimum population size or trend of Mexican wolves in the MWEPA or "other established populations based on most recent population count";
 - ii. Mexican wolf genetic diversity objectives being met (undefined and not clear how determined/established as a criteria);
 - iii. Documentation by the Service or authorized agent of previous loss or injury of livestock occurring on same private or tribal lands (precondition to permit);
 - iv. Prior implementation of proactive efforts to attempt to resolve the problem (precondition to permit);
 - v. Determination by Service that conflict is likely to continue (criteria, protocol?);
 - vi. Formal statement from Service enacting this provision to allow for the lethal take of the wolves involved.
 - b. This provision contains a variety of requirements and conditions that may make it difficult for the land owner or tribal entity to efficiently and quickly address persistent and critical wolf depredation issues, while losses/conflicts continue to occur. If an incident develops on private lands located away from core areas that contain native ungulate prey items, wolves are likely to continue to depredate on livestock while efforts are ongoing to meet or document all of the above referenced requirements; and while Service personnel deliberate on individual incident circumstances to determine if criteria are met before issuing and take permit.
 - c. If State Wildlife Agencies are considered to be the "authorized agent" in administering and processing subject permitting processes, and jointly evaluating

circumstances tied to each potential permitting request/situation, this proposed alternative could result in a significant amount of time being directed by IFT/Department personnel to implement and monitor this new permitting process. Increased management burden without corresponding funding/resourcing being provided will compromise overall management capability.

- d. This proposed change is an important/beneficial option that could promote improved stakeholder confidence in implementation of the reintroduction program within the BRWRA and across the MWEPA, to the extent that these proposed alternatives are effectively and transparently managed by Service.
- e. Bottom-line effectiveness and practicality will hinge on accompanying process that streamline conditions and requirements for obtaining individual take permits allowing private landowners to more efficiently and practically deal with confirmed depredating wolves.
- f. Project Budget Implications:
 - i. If Department is considered to be the “authorized agent” managing this proposed change and is required to respond to investigate wolves depredating on private lands, implement agency efforts to resolve the problem and then coalesce all of this information into a request to the Service to allow individual applications for take permits, this will result in a significant amount of time and effort to implement this process. By comparison/reference, AGFD IFT personnel have expended entire pay periods (80 hours) implementing proactive management efforts on depredating and nuisance wolves within core wolf recovery areas on the BRWRA. A range of projected costs/incident in this case would approach those in the following table:

18. Activity	19. Amount	20. Cost	21. Total
22. PS/ERE	23. 40-80 hrs	24. \$28/hr	25. \$1120/incident- \$2240/incident
26. Equipment	27. 100-200 mi per incident	28. \$0.55/mi	29. \$55-\$110/incident
30. Per diem	31. 8-16 days	32. \$54/day	33. \$432-\$864/incident
34.	35.	36. Total Charges	37. \$1607-\$3214/incident

38. Management options available regarding wolves that travel outside the Mexican Wolf Experimental Population Area in AZ, as outlined in the Proposed 10(j) Revision.

- a. Explain and clarify the Service’s contentions regarding capture and removal of Mexican wolves that disperse outside the area(s) that are included in the proposed 10(j) Rule. In recent months, the Service has committed to the states that the draft Rule would affirm that such wolves would be removed and restored to the MWEPA or placed in captivity. The draft proposed 10(j) Rule affirms that commitment in prefatory text but does not include it in the Rule itself. In recent weeks, some senior Service staff opined that it would not be appropriate to include that commitment in the proposed Rule, while others said it would. The issue needs to be explored and definitively resolved in the body of the draft EIS and the 10(j) Rule. If the Service decides that this commitment cannot be made,

the EIS must explore whether stakeholder interests and wolf conservation are better served by a 10(j) Rule that applies to the Mexican wolf wherever it may occur in the wild, enabling wider dispersal under well-defined management guidelines (e.g. perhaps under a Zone Management Concept for varying levels of occupancy and management).

- i. Note Page 26, DEIS, which states that: “In accordance with the proposed rule, the Service intends to capture and return experimental wolves outside the MWEPA through a 10(a)(1)(A) permit. Under a 10(a)(1)(A) permit, the Service intends to capture and return any Mexican wolf outside the MWEPA that is part of the experimental population.”
- b. The Service notes that Mexican wolves within the designated MWEPA are managed as a nonessential experimental population in accordance with the section 10(j) of the ESA. Any Mexican wolf outside the MWEPA, regardless of origin, would be considered and managed as endangered under the ESA.
- c. Under the proposed rule (and as further explained in the DEIS), Mexican wolves are to be classified in accordance with their location relative to MWEPA.
 - i. All Mexican wolves found within the MWEPA will be part of the experimental population, while those found outside will be considered endangered.
 - ii. Any Mexican wolf inside the MWEPA would be considered experimental until such time as the Mexican wolf is delisted.
 - iii. Any Mexican wolf outside the MWEPA, even if that wolf was introduced as experimental, would be considered as endangered.
- d. The Service asserts in the DEIS that this “zone” approach, which ignores the origin of each Mexican wolf and instead determines status by the wolf’s current location, is logical and appropriate because the origin of an individual wolf is difficult to establish with any certainty. With this application of the rule, Service contends there cannot be overlap between endangered Mexican wolves and the experimental population because the individual populations are clearly delineated until recovery is achieved.
- e. The Service explains in the DEIS that this “zone” approach is designed to encourage interbreeding between the experimental (MWEPA) population and Mexico. The DEIS adds that this “zone” approach is also fully consistent with the unavoidable fact that listed species, particularly highly mobile animals like wolves, can “lose” or “gain” protections simply by crossing geographical boundaries.
- f. From a management effectiveness and efficiency standpoint, greater management flexibility (specifically “take” provisions) exist for experimental wolves within the MWEPA - as compared to those management options available to addressing wolves that exist outside the MWEPA. Mexican wolves existing outside the designated MWEPA/10j will have full “endangered” protections, which will restrict management options to non-lethal means (for example) and subject to a Service issued 10(a)(1)(A) permit.
 - i. According to Service DEIS personnel (John Oakleaf pers. comm.), the Department may be in a position to issue “Incidental Take Permits” (10.a.1.B.) to individuals involved in lawful activities where wolves may

be adversely affected as a result of those activities (need to verify with Solicitors).

- ii. These 10(a)(1)(A) and 10(a)(1)(B) provisions are subject to the development of a *Mexican Wolf Management Plan* (Plan) for those portions of AZ and NM outside the MWEPA.
- iii. The Service DEIS further notes that the proposed Plan provides a greater range of options under Section 10 (a)(1)(A) of the ESA to prevent or respond to reports of livestock depredation incidents or nuisance behavior. Service notes that, without an approved management plan for Mexican wolves outside the MWEPA, a 10(a)(1) (A) permit authorizing actions such as harassment or capture and translocation of problem wolves cannot be issued.
- iv. For all alternatives outlined in the DEIS, Service proposes to develop and implement a *Mexican Wolf Management Plan* (Plan) for those portions of AZ and NM outside the MWEPA.
 1. The intent of the management plan is to describe the Service strategy to conserve and promote the recovery of the Mexican wolf while responding to reports of depredation and wolf-human/wolf-livestock interaction in a timely, professional, consistent and effective manner.
 2. The Service proposes to implement the Plan “in collaboration with Federal, State, and Tribal Partners through an ESA Section 10 (a) (1) (A) research and recovery permit and the provision of Federal funding.” Further, the “actions specified in the management plan and the Federal funding that would be provided to state partner agencies are considered supplemental to management activities already authorized and funded under 50 C.F.R. 17.21 C (5) and Cooperative Agreements with the states of Arizona and New Mexico.”
 3. The Plan is intended to address Mexican wolves that disperse from Mexico into those portions of AZ and NM outside the MWEPA - where they will be listed/treated as an endangered species.
 4. Under DEIS alternatives 1 and 2 (both reflecting current MWEPA boundaries), the proposed Plan would be implemented for and apply to those areas of AZ and NM north of Interstate 40 and south of Interstate 10. If the MWEPA remains at its current boundary at I-10, Service DEIS Alternatives 1 and 2 both note that Mexican wolves would not be allowed to naturally disperse into this area from the BRWRA.
 5. Under DEIS alternatives 3 and 4, the proposed management Plan would be implemented only for the area of AZ and NM north of Interstate 40 because alternatives 3 and 4 reflect the MWEPA being extended to the Mexico border. An expansion of the MWEPA south to the international border with Mexico would allow management of Mexican wolves in this area, regardless of origin, under the experimental population 10(j) rule.

- v. The regulatory flexibility provided in Service's proposed 10(j) rule would also allow management actions within the MWEPA that will benefit wolf reestablishment such as translocations on public lands and initial releases and translocations on private or tribal lands if requested by the landowner or tribal government.
- vi. As it presently exists, the Service DEIS describes the scope and purpose of the Plan, which includes the following elements:
 - 1. Monitoring and management of Mexican wolves that have naturally dispersed from Mexico into the United States and inhabit parts of AZ outside the MWEPA;
 - 2. Provide interagency management guidelines necessary to respond to reports of wolf-human and wolf-livestock interactions and mitigate associated conflicts;
 - 3. Establish uniform management guidelines for determining management actions that contribute to the recovery of the Mexican wolf in AZ and NM;
 - 4. Integrate wolf management and recovery objectives with other land uses and values;
 - 5. Identify needs/mechanisms for funding State, Tribal and Federal agency partners programs that assist and collaborate in the management activities necessary to enhance the survival and propagation of the Mexican wolf in AZ and NM, and;
 - 6. Address local and landowner concerns associated with natural wolf dispersal outside the MWEPA by wolves from Mexico by identifying corresponding wolf management parameters sufficient to address those issues/concerns;
 - 7. Overall, allow effective management of Mexican wolves in those areas of AZ and NM outside the MWEPA in effort to promote wolf survival while being responsive to reports of depredation incidents and nuisance behavior.
- vii. Existing Service DEIS language relating to the Plan and its purpose/scope neither directly nor adequately addresses potential impacts upon native wildlife (prey) populations in AZ/NM associated with wolves existing outside the MWEPA. This is an area of management concern that the Department will need to press through its Cooperator status in working on the DEIS and accompanying *Mexican Wolf Management Plan* for wolves dispersing outside the designated MWEPA.
- viii. Existing DEIS language does not provide details on how problem-wolf incidents would be identified, classified or acted upon – very general language on responding to depredation incidents and nuisance behavior without specific on management approaches/actions.
- g. Management of Mexican wolves travelling outside the MWEPA north of I-40 (assuming it remains as the northern boundary of the MWEPA), will require the development of formal agreements or operating agreements with Native American Tribes, in particular, which have reservations and tribal-trust lands north of the I-40 boundary. It has been the primary responsibility of the Service,

as a federal-trust agent to these various tribes, to assume the role of facilitating the development of required agreements and monitor the effective implementation of associated management actions with these tribes. As outlined in the Proposed Rule and DEIS, each tribe will be in a position to develop agreements with Service on the management of wolves on tribal-trust/reservation lands, including those outside the MWEPA. Ultimately, the State (at minimum) will need to be engaged in these planning processes given the obvious management implications.

- h. Whether the southern MWEPA boundary is extended to the international border or left at I-10, the Department will likely need to engage in some level of coordination with Service and Mexico officials in order to ensure adequate wolf management and monitoring of wolf activity occurring along the border. In addition, some level of coordination with Homeland Security/Border Patrol will also be required for the Department to ensure adequate implementation of either 10(a)(1)(A) permit (if the southern MWEPA boundary remains at I-10) or 10j provisions (if MWEPA is extended to the international border).
39. Game Impacts – 35% and 50% thresholds identified in proposed 10(j) rule as it relates to wolf impacts on game populations.
- a. The Service must provide a meaningful analysis of Mexican wolf impacts on native ungulate populations and of wolf depredation on various species of livestock (e.g. cattle, horses, sheep, etc.). These impacts must be projected across the potential numerical range of expansion of the Mexican wolf population, up to and beyond current and potential recovery objectives in AZ and NM. This analysis must define unacceptable impacts to livestock herds as well as to wild ungulate herds, how such impacts can be measured, the means available for prevent and for responding to such impacts and the management responses allowable when and if unacceptable impacts occur.
 - b. The Service states in the Proposed 10j Rule (page 35741) – *Allowable Take by Authorized Personnel*: “This take may include, but is not limited to, capture and translocation of Mexican wolves that: Prey on livestock; attack pets or domestic animals other than livestock on private or tribal land; affect game populations in ways that may inhibit further Mexican wolf recovery....” “If Mexican wolf predation is shown to be a primary cause of ungulate population declines (greater than 50 percent of documented adult or young mortality), then wolves may be moved to reduce ungulate mortality rates and assist in herd recovery, but only in conjunction with application of other common, professionally acceptable, wildlife management techniques.”
 - i. A primary cause of mortality may not reach 50% of the total mortality. "Primary" and "50%" are not synonyms. We could have elk populations plummeting and wolves causing 40% of the mortality, with disease/malnutrition (30%), roadkills (20%), and harvest (10%) as the lesser causes of mortality. If the elk population were declining and wolves were the leading (percentage-wise) cause of mortality, then wolf predation would be the primary cause of mortality, but conveniently this does not satisfy the Service trigger of >50%. The 50% trigger is meaningless and arbitrary. It should be dropped and instead the language should simply say

"If Mexican wolf predation is shown to be a primary cause of ungulate population declines (e.g. the majority of documented adult or young mortality), then wolves may be moved or removed to reduce ungulate mortality rates and assist in herd recovery."

- ii. The Service does not provide biological/scientific justification supporting the used of the noted 50 percent mortality/decline in ungulate populations as a defensible trigger for initiating wolf management responses to those declines. In addition, Department biologists have noted that this level of decline in native ungulate populations, if allowed to materialize without any accompanying wolf management action, would result in catastrophic consequences to hunting opportunity and the ability of subject game populations to recover from (much less sustain) such high levels of predation. Furthermore, limiting wolf management responses to "wolves may be moved" (excluding outright removal) imposes a very narrow and impractical management framework considering the significance of the management problem.
- c. The proposed revision expands the authority of livestock owners to take wolves that kill or wound livestock on public lands, provided the wolf population reaches 100 with at least six breeding pairs. This take authority is based on the obvious economic harm from livestock depredation. No less important is the impact wolves have on the State's ungulate populations. The Service, however, has not afforded the Department similar authority to manage wolves at the point wolves have an unacceptable impact on Department-managed wildlife.
- d. With the expectation that the proposed revision to the experimental rule will increase the wolf population to levels that may have a devastating impact on AZ's wildlife populations, the Department should insist that the Service include a modification to give the State authority to manage wolves when the population reaches a pre-determined objective, and wolves are having an unacceptable impact on ungulate populations.
 - i. Proposed 10j rule definition (page 35738) of "*Affect game populations in ways that may inhibit further Mexican wolf recovery* means affect a particular species of ungulate in a game management unit or distinct herd segment by cumulatively decreasing population or hunter harvest estimates by 35 percent during 2 consecutive years compared to the herd's 5-year average prior to Mexican wolf occupancy (the unit or herd must contain an average of greater than 100 animals)."
 - ii. Proposed 10j rule (page 35738) – "This definition does not apply to Service-approved State and tribal Mexican wolf management plans that define unacceptable impacts from wolf predation on game populations." This provision may provide an avenue for the Department to establish game impact thresholds that are more acceptable and sustainable.
 - iii. This is too drastic and would represent catastrophic ungulate population collapse. If AZ had a herd of 1000 elk they would lose 350 in Year 1 and the remaining 650 elk going into Year 2 would lose 227.5 more that second year. The population of 1000 elk would be less than 423 after two years of 35% cumulative decline. That, clearly, is a ridiculous

guideline/threshold/metric and represents a devastating population crash. During the first 10 years (1995-2005) of wolf recovery in the Northern Yellowstone area, the elk population decreased 6-8% per year (White and Garrott 2005:143, Biol. Cons. 125:141-152). (Question: does "cumulatively decreasing" mean the starting population is reduced by 35% in Year 1 and then the new population level by 35% in Year 2? Or, is it 1000 elk and after 2 years we have 35% fewer (650)? Since it says "two consecutive years," we think it must mean a 35% drop two years in a row.) By our math, 35% declines in 2 successive years amounts to a 58% decline over the 2 year period (from Year 1 starting point to Year 2 end point).

1. "...during 2 consecutive years compared to the herd's 5-year average prior to MXW occupancy...." So, in AZ GMUs 1 & 27 is 1992-1997 the baseline? That is fully 5 years of pre-occupancy data. AZ may have experienced all sorts of environmental changes since the mid-1990s that have changed the elk population, not to mention the fact that wolves, AGFD and land management agencies have exerted substantial management actions to change (manage) elk herd abundance in those areas since the mid-1990s.
- iv. Similar to the 50 percent threshold on declines in ungulate populations (above), the Service does not provide biological/scientific justification supporting the use of this 35 percent trigger to quantify unacceptable impacts to game populations. Furthermore, the Service defines adverse impacts to game populations in the context of inhibiting further Mexican wolf recovery while completely ignoring the impacts such declines would have on State or Tribal Wildlife Agencies (wildlife resources and management capabilities/plans) and the losses they are incurring as a result of such predation levels.

40. Table A – * Summary of AGFD IFT wolf project activities and associated budget/costs. These totals assume that new management activities involving any expansion of wolf management in AZ would continue to be conducted out of the existing Alpine field office. An additional field office building in another portion of the BRWRA under proposed options to expand the size of BRWRA in AZ would offset travel costs from Alpine over time but require an additional outlay for the purchase of the new facility.

41. Activities	42. Description	43. Current Funding Level	44. Anticipated Incremental Funding Need
45. PS/ERE	46. Costs associated with 5 AGFD IFT team members	47. \$374K (1-IFT leader, 1-wildlife specialist, 3- wildlife tech's)	48. \$381K (6 additional personnel - wildlife tech's, (ps /ere/indirect)
49. Weekly Fixed Wing Telemetry Flights	50. Costs associated with weekly telemetry flights to obtain locations of all collared wolves in BRWRA (includes NM)	51. \$63K (BRWRA+FAIR = 9839 mi ²)	52. \$30K (Sitgreaves N.F.+ Tonto RD's=3632mi ²)
53. Helicopter counts	54. Cost associated with helicopter flight time to count and capture wolves as part of end of year count effort	55. \$30K 56. (BRWRA+FAIR = 9839 mi ²)	57. \$30K (Sitgreaves N.F.+ Tonto RDs=3632mi ²)
58. Fixed Wing Support – helicopter counts	59. Cost associated with AGFD fixed wing flight time to assist helicopter count and capture wolves as part of end of year census effort	60. \$8K 61. (BRWRA+FAIR = 9839 mi ²)	62. \$8K (Sitgreaves N.F. = Tonto RD's = 3632mi ²)
63. Management removal costs	64. Cost associated with helicopter flight time to capture wolves for management removal efforts	65. \$18K (contingent funds, not always spent)	66. \$18K (contingent funds, not always spent)
67. AOO	68. All Other Operating expenses for AGFD IFT management efforts	69. \$26K	70. \$40K (additional costs for outfitting and maintaining six new field personnel)
71. Per diem	72. Costs associated with AGFD IFT travel activities	73. \$3K	74. \$8K
75. TOTALS*	76.	77. \$522K	78. \$515K

80. Assessment of Estimated Financial Costs Associated with Designated Decision Points Identified within the Proposed Revision To the Nonessential Experimental Population of the Mexican Wolf under Section 10(j) of the ESA. AGFD completed the following analysis to identify/quantify potential financial impacts of implementing the *Proposed Revision to the Nonessential Experimental Population of the Mexican Wolf* under ESA Section 10(j). The specific financial impacts that are analyzed in this section relate to the following Proposed Rule provisions:

- a. *"Authorized personnel:* Individuals or personnel authorized by the Service may take any Mexican wolf in the nonessential experimental population in a manner consistent with a Service approved management plan, special management measure, conference opinion pursuant to section 7(a)(4) of the Act, section 6 of the Act as authorized pursuant to § 17.31 for State wildlife agencies with authority to manage Mexican wolves, or a valid permit issued by the Service under § 17.32. (A) This take may include, but is not limited to, capture and translocation of Mexican wolves that: Prey on livestock; attack pets or domestic animals other than livestock on private or tribal land; affect game populations in ways that may inhibit further Mexican wolf recovery; are considered problem wolves; endanger themselves by their presence in a military impact area; need aid or veterinary care; or must be taken for authorized scientific, research, or management purposes. If Mexican wolf predation is shown to be a primary cause of ungulate population declines (greater than 50 percent of documented adult or young mortality), then wolves may be moved to reduce ungulate mortality rates and assist in herd recovery, but only in conjunction with application of other common, professionally acceptable, wildlife management techniques." (Page 35741, emphasis added)
- b. *"Affect game populations in ways that may inhibit further Mexican wolf recovery* means affect a particular species of ungulate in a game management unit or distinct herd segment by cumulatively decreasing population or hunter harvest estimates by 35 percent during 2 consecutive years compared to the herd's 5-year average prior to Mexican wolf occupancy (the unit or herd must contain an average of greater than 100 animals). This definition does not apply to Service-approved State and tribal Mexican wolf management plans that define unacceptable impacts from wolf predation on game populations." (Page 35738, emphasis added)
- c. The preceding two provisions relating to game impacts from wolves were included in the 1998 Final Rule and have been extended to the Proposed Rule.

81. Economic Impact Analysis

- a. In the first situation (50% of documented mortality being attributed to wolf predation), two separate approaches to estimating the loss revenue to the state and economy have been analyzed, with both focusing on impacts to elk populations/hunting opportunity in AZ.
- b. The first approach looks at estimated take by wolves and ignores the assumption that we would need to radio-tag and monitor a substantial number of elk to determine if this level of take was attained by wolves. Radio-tagging and

monitoring 100 elk across occupied wolf range would likely require \$340,000 simply to acquire radio-tags (current approximate prices for GPS radiomarks with real time computer connectivity for about 100 elk). Subsequent annual monitoring is estimated to cost an additional \$100,000 (estimated cost for personnel, employee related expenses, and vehicle costs to radiomark, monitor, and determine cause for any elk mortalities), and replacement radiotags would be needed periodically. This expense becomes a mandated long-term monitoring burden that must be borne in perpetuity by the state agency. Discounting this estimated \$440,000 cost to the first year, the actual revenue lost and value to local economies may be calculated in the following manner:

i. Method 1

1. *Assumptions:* As coursing predators, wolves kill a disproportionate number of old, sick, and weak elk, so there may be some compensatory mortality (i.e., some of the elk killed by wolves may have died anyway that year). The scientific literature strongly supports the notion that most wolf predation will be additive. Our history of management actions harvesting cow elk in AZ to control the population indicates that we start to change (decrease) the growth rate (trajectory) of the elk population when harvest rate reaches 12–20% of the cow elk segment (average of 16%). In this exercise, we assume an average of 16% of all wolf kills would have died that year of another cause.
2. Method 1 calculation of wolf effect upon elk in AZ – Based on 100 wolf population:
 - a. The 5-year mean hunt success is 37.5% for Arizona Game Management Units: 1, 2A, 2B, 2C, 3A, 3B, 3C, 4A, 4B, 5A, 5B, 6A, 22, 23, 27 across all hunts and weapon types;
 - b. If wolves kill an average of 16 elk/year, then 100 wolves will kill 1,600 elk per year. If 16% of those would have died due to another cause, the effect of that level of wolf predation would be 1,344 additional elk killed by wolves;
 - c. $1,344 \text{ additional elk lost to wolves} / 0.375 \text{ (hunt success)} = 3,584$ fewer hunters could go afield;
 - d. $3,584 \text{ hunters} / 0.958 \text{ (Participation Rate)} = 3,741$ permits fewer permits could be issued;
 - e. 4% of the 3,741 permits lost would be nonresident permit-tags: $150 \text{ nonresident permit-tags} \times \$650.00 = \$97,500$. The remaining $3,591 \text{ resident permit-tags} \times \$135 = \$484,785$. The combined total of lost elk permit revenues/year based on a 100-wolf population is \$582,285.
 - f. Furthermore, $3,741 \text{ permits} \times 4.9 \text{ (average hunter-days per permit)} = 18,331$ hunter-days lost/year; and
 - g. $18,331 \text{ hunter-days lost per year} \times \$224.83 \text{ (value of a hunter-day in AZ with economic multiplier)} = \underline{\$4,121,359}$ contribution to AZ economy (mostly rural communities) by elk hunters that is lost annually per 100 wolves.

ii. Method 2

1. Alternatively, the following analysis uses all permits issued in these same AZ Game Management Units for elk, which totals 16,176 permits based on 5-year averages. This level of permitting provides an average of 79,292 hunter days annually, based on the same 4.9 average hunter-day/permit figure used in Method 1. This method generates an average annual elk harvest in AZ of 5,814.
2. *Method Assumptions:*
 - a. Ballard et al. (2000; Survival of female elk in northern AZ, JWM 64:500–504) estimated that in hunted populations, 62% of all mortality was attributable to hunting. This conclusion was based on radio-marked elk survival and cause-specific mortality calculations obtained primarily during 1985–1993. If wolf-caused mortality were to approach 50% of all mortality sources, as outlined in the Proposed 10(j) Rule, that wolf-caused mortality could be offset by reducing hunting mortality proportionally. Applying this impact across the range of units expected to be occupied by wolves would yield a potential method to calculate maximum wolves and effect of 100 wolves on landscape.
3. Method 2 calculation of wolf effect upon elk in AZ – Based on 100 wolf population:
 - a. Five-year mean elk harvest data from Arizona Game Management Units 1, 2A, 2B, 2C, 3A, 3B, 3C, 4A, 4B, 5A, 5B, 6A, 22, 23, 27 (across all hunts and weapon types) is 5,814 elk, based on authorization of 16,176 total permits, which translate into total 79,292 hunter days;
 - b. If 5,814 elk represents 62% of all mortality (Ballard et al. 2000), then 50% of all take would equal 4,689 elk, which could presumably be taken by wolves as noted in the Proposed 10(j) Rule;
 - c. Based on the estimate of 16 elk/year required to support one wolf, then the loss of 4,689 elk (50% of elk mortality) would support 293 wolves;
 - d. A proportional reduction in elk permits issued as a 50/62 of 5-year mean within these same Game Management Units amounts to 13,045 tags, and a reduction of corresponding hunter days by a total of 63,945;
 - e. Alternatively, to proportionally reduce permits to compensate for 100 wolves (rather than 293), the 100/293 proportion yields a necessary reduction of 4,452 elk permits with an accompanying reduction in average hunter days of 21,824;
 - f. 4% of the 4,452 permits lost would be nonresident permit-tags, which amounts to 178 nonresident permit-tags x

\$650.00 = \$115,700 in NR permits fees. The remaining 4,274 resident permit-tags x \$135 = \$576,990 in Resident permit fees. The combined total of lost elk permit revenues/year based on a 100-wolf population is \$692,690.

- g. Furthermore, 21,824 hunter-days lost per year x \$224.83 (value of a hunter-day in AZ with economic multiplier) = \$4,906,689 contribution to AZ economy (mostly rural communities) by elk hunters that is lost annually per 100 wolves.

- c. With respect to the second Proposed Rule provision for quantifying wolf impacts upon game populations (a measurable reduction of 35% cumulatively in game populations or hunter harvest over a 2-year period), several problems preclude reasonable estimates of revenue loss. First, the 35% threshold represents a precipitous decline that exceeds what was observed in northern Yellowstone. After 4 years, it is unlikely that any hunting would be allowed within areas experiencing this level of game population declines. Based on this level of decline, \$2,201,715 would be lost using AZ's 2014 license fees. This would result in the loss of \$17,827,220.36 in economic value to the AZ economy annually based on multipliers tied to the 79,292 hunter days that would be lost and otherwise committed annually to hunting elk in these areas of AZ. Clearly, this is the more problematic decision or trigger point for wolf impacts upon game populations, and will likely generate the greatest economic impact to the state and Department if allowed to materialize across AZ's elk populations.
- d. *Other Game Impact concerns:* Although the diet of Mexican wolves is predominantly elk in AZ-NM thus far, little is known regarding the potential effects of wolves on deer or other ungulate prey should wolves become established in areas having few or no elk. Preliminary estimates on the number of deer needed to sustain a single wolf range up to 80 deer/year. Additionally, further uncertainty remains as to whether wolves would primarily pursue mule deer within the lower, flatter country or if they would subsist on white-tailed deer in more mountainous terrain. Although wolves are primarily a coursing predator, mule deer abundance in AZ (and perhaps NM) is substantially lower than during the early 1980s and may not provide sufficient prey base to support self-sustaining wolf populations. The absence of experience of monitoring Mexican wolves in habitats where limited deer populations become the most abundant prey species for wolves makes it very difficult to estimate or quantify financial implications under these conditions. Further, standardized population monitoring in AZ for both elk and deer are conducted using aerial survey methods in much of their occupied range. Survey time allocations are annually adjusted and based on the ability to achieve 5–10% confidence intervals on estimates of young:female ratios. In units where ungulates are less abundant, more effort must be applied to achieve minimum numbers of observations to achieve these survey confidence intervals. While difficult to predict accurately, reductions in abundance of elk or deer will necessitate greater survey effort to attain the existing survey precision

and confidence. Currently, overall helicopter survey costs in AZ average about \$1,125/hour of survey, including costs for pilot, survey, ferry and fuel truck. This does not include the cost of salary and employee related expenses when considering the three employees required to conduct said surveys.

In closing, we believe the Service has a much higher obligation to affected and interested stakeholders in AZ and NM than is reflected by the current Region 2 approach to developing a revised management framework and nonessential experimental population rule for the Mexican wolf. The Service should not force the public into an unacceptably brief comment period on such a longstanding and crucial issue, nor should the Service's approach preclude other agencies from meeting their own legal, policy and procedural obligations for stakeholder participation in shaping the state's response on their behalf. Moreover, the Federal Shutdown of the past weeks did not create these timeline problems, but clearly it has exacerbated the problems by precluding public access to documents and individuals with whom to confer as we developed this assessment. We hope the Service will reconsider its approach, redesign it accordingly and bring an orderly and constructive end to our concerns and those expressed by countless others.

We will appreciate Service consideration of, and meaningful response to, our concerns.

Sincerely,

Arizona Alliance of Responsible Land Users
Arizona Bowhunters Association
Arizona Cattle Growers' Association
Arizona Chapter Safari Club International
Arizona Chapters of Mule Deer Foundation
Arizona Chapters National Wild Turkey Federation
Arizona Deer Association
Arizona Desert Bighorn Sheep Society
Arizona Elk Society
Arizona Farm Bureau Federation
Arizona Predator Callers
Arizona Wildlife Federation
Arizona Wool Growers' Association
Big Game Forever
Biologists for Environmentally Responsible Decisions
Catron County Commission (NM)
Coconino Sportsmen
Concerned Sportsmen of Arizona
Council of Border Conservation Districts
CouesWhitetail.com
Desert Christian Archers
Dona Ana Soil & Water Conservation District (NM)
Exotic Wildlife Association
Gila County Cattle Growers Association (AZ)
Gila Livestock Growers Association (NM)
Grant County Soil & Water Conservation District (NM)
Hidalgo County Commission (NM)
Hidalgo Soil & Water Conservation District (NM)
Luna County Commission, New Mexico
Mogollon Sporting Association
Mohave Sportsman's Club
Mule Deer Foundation
New Mexico Association of Conservation Districts
New Mexico Cattle Growers' Association

New Mexico Coalition of Conservation Districts
New Mexico Council of Outfitters & Guides
New Mexico Federal Lands Council
New Mexico Farm & Livestock Bureau
New Mexico Wool Growers, Inc.
Phoenix Chapter Safari Club International (AZ)
Phoenix Varmint Callers, Inc. (AZ)
Powder River Ranch, LLC
Quail Forever-Valley of the Sun Chapter
Ranching Heritage Alliance
Rim Country Adventures
Shoot Right Airgun Hunting Club
Sierra County Farm & Livestock Bureau
Sierra Soil & Water Conservation District (AZ)
Southeast Arizona Sportsmen Club
Southwest Fur Harvesters
Southwest Quay Soil & Water Conservation District (NM)
Sportsmen's Constituent Group
Texas Sheep & Goat Raisers
Trailhead Outdoors
Tule Springs Ranch (AZ)
United Wildlife Cooperative
Upper Eagle Creek Watershed Association (AZ)
Whitewater Draw Natural Resource Conservation District (AZ)
Willcox-San Simon Natural Resources Conservation District Board (AZ)
Yuma Valley Rod and Gun Club (AZ)

cc: Larry D. Voyles, Director, Arizona Game and Fish Department
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Rowan W. Gould, Deputy Director of Operations, U.S. Fish and Wildlife Service
Michael J. Bean, Acting Deputy Assistant Secretary for Fish, Wildlife and Parks,
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Benjamin N. Tuggle, Region 2 Director, U.S. Fish and Wildlife Service
Jonathan J. Olson, Region 2 NEPA Coordinator, U.S. Fish and Wildlife Service
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