Final Environmental Impact Statement

Title of Proposed Action: Proposed Revision to the Regulations for the Nonessential Experimental Population of the Mexican Wolf (Canis lupus baileyi)

Lead Agency: United States Fish and Wildlife Service, Southwest Region

Cooperating Agencies:

USDA Forest Service
USDA APHIS/Wildlife Services – Western Region
National Park Service – Intermountain Region/
Bureau of Indian Affairs – Southwest Region
Bureau of Land Management – Arizona State Office
Bureau of Land Management – New Mexico State Office
U.S. Army, Fort Huachuca, Arizona
U.S. Army, White Sands Missile Range, New Mexico
U.S. Customs and Border Protection
Arizona Game and Fish Department
New Mexico Department of Game and Fish
New Mexico Department of Agriculture
Eastern Arizona Counties Organization
Gila County, Arizona
Greenlee County, Arizona
Navajo County, Arizona
Graham County, Arizona
Cochise County, Arizona
Chaves County, New Mexico
Eddy County, New Mexico
Grant County, New Mexico
Hidalgo County, New Mexico
Lincoln County, New Mexico
Luna County, New Mexico
McKinley County, New Mexico
San Miguel County, New Mexico
Sierra County, New Mexico
Pueblo of Laguna

Abstract: The Service proposes to revise the regulations established in our 1998 Final Rule for the nonessential experimental population of the Mexican wolf. We also propose to extend the authority of the Mexican Wolf Recovery Program’s Section 10(a)(1)(A) research and recovery permit to areas that are outside of the MWEPA. In this EIS we analyze the environmental consequences of a range of alternatives, including the Proposed Action and No Action alternative, for our proposal. The action would be implemented through a final nonessential experimental rule, a revised Section 10(a)(1)(A) research and recovery permit and the provision of federal funding.

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EXECUTIVE SUMMARY

The mission of the U.S. Fish and Wildlife Service is:

“Working with others, to conserve, protect, and enhance fish, wildlife, plants, and their habitats for the continuing benefit of the American people”.

Under the provisions of the Endangered Species Act of 1973 (16 USC §1531-1544), as amended (ESA, the Act), we have primary responsibility for the conservation of terrestrial and freshwater organisms. Section 4(f)(1) of the ESA directs the Secretary of the Interior to “develop and implement recovery plans for the conservation and survival of endangered species”. Section 10(j)(2)(A) of the Act specifies that the Secretary of the Interior may authorize the release…of any population…of an endangered species…if the Secretary determines that such release will further the conservation of such species.

The U.S. Fish and Wildlife Service (USFWS, we, us, the Service) propose to revise the regulations established in our 1998 Final Rule for the nonessential experimental population of the Mexican wolf. We also propose to extend the authority of the Mexican Wolf Recovery Program’s Section 10(a)(1)(A) research and recovery permit to areas that are outside of the MWEPA. In this EIS we analyze the environmental consequences of a range of alternatives, including the Proposed Action and No Action alternative, for our proposal. The action would be implemented through a final nonessential experimental rule, a revised Section 10(a)(1)(A) research and recovery permit and the provision of federal funding.

BACKGROUND

The Mexican wolf is the rarest, southern-most occurring, and most genetically distinct subspecies of all the North American gray wolves (Parsons 1996, Wayne and Vilá 2003, Leonard et al. 2005). The distinctiveness of the Mexican wolf and its recognition as a subspecies is supported by both morphometric (physical measurements) and genetic evidence (78 FR 35664, June 13, 2013). The Mexican wolf was listed as an endangered subspecies (Canis lupus baileyi) in 1976. The entire gray wolf species (Canis lupus) in North America south of Canada was listed as endangered in 1978, except in Minnesota where it was listed as threatened. Although this listing of the gray wolf species subsumed the previous Mexican wolf subspecies listing, the rule stated that the USFWS would continue to recognize valid biological subspecies for purposes of research and conservation.

In the United States, Mexican wolves were reintroduced to the wild in 1998 in Arizona and New Mexico as a nonessential experimental population pursuant to section 10(j) of the ESA. Captive-bred Mexican wolves can be released into a portion of the Blue Range Wolf Recovery Area (BRWRA), which is part of a larger Mexican Wolf Experimental Population Area (MWEPA). The BRWRA consists of all of the Apache and Gila National Forests. The MWEPA is a larger area surrounding the BRWRA that extends from Interstate Highway 10 to Interstate Highway 40 across Arizona and New Mexico and includes a small portion of Texas north of U.S. Highway 62/180 (63 FR 1752, January 12, 1998). Under current regulations, Mexican wolves can occupy any portion of the BRWRA, but are not allowed to establish in the MWEPA.
Figure ES-1. Geographic boundaries for the nonessential experimental population of the Mexican wolf as established under the 1998 Final Rule.

On June 13, 2013 we published a proposed 10(j) rule (Proposed Revision to the Nonessential Experimental Population of the Mexican Wolf, 78 FR 35719) for the Mexican wolf nonessential experimental population in Arizona and New Mexico. This action was taken in coordination with our proposed rule, published on the same date in the Federal Register, to list the Mexican wolf as an endangered subspecies and delist the gray wolf [Removing the Gray Wolf (Canis lupus) From the List of Endangered and Threatened Wildlife and Maintaining Protections for the Mexican Wolf (Canis lupus baileyi) by Listing It as Endangered (78 FR 35664)]. We published the proposed 10(j) rule to associate the nonessential experimental population of Mexican wolves with the Mexican wolf subspecies listing, if finalized, rather than with the listing of the gray wolf at the species level and because we are proposing revisions to the current Mexican wolf nonessential experimental population regulations.

On August 5, 2013 we published a Notice of Intent (NOI) to prepare the Mexican wolf EIS in the Federal Register, Notice of Intent To Prepare an Environmental Impact Statement for the Proposed Revision to the Nonessential Experimental Population of the Mexican Wolf (Canis lupus baileyi) (78 FR 47268). The NOI solicited comments from the public, government agencies, Tribes, industry, the scientific community, or any other interested parties concerning the scope of the EIS, pertinent issues to address, and alternatives that should be analyzed. On September 5, 2013 we published notices in the Federal Register to extend the public comment period from September 11, 2013 to October 28, 2013 on both of the proposed rules; Proposed Revision to the Nonessential Experimental Population of the Mexican Wolf (78 FR 54613) and Removing the Gray Wolf (Canis lupus) From the List of Endangered and Threatened...
Wildlife and Maintaining Protections for the Mexican Wolf (Canis lupus baileyi) by Listing It as Endangered (78 FR 54614). On July 25, 2014, we published a Notice of Availability (NOA) for the revised proposed rule, Proposed Revision to the Nonessential Experimental Population of the Mexican Wolf (79 FR 43358) in the Federal Register, and announced the availability of the draft EIS, the scheduled public information sessions and hearings, and the opening of the 60-day public comment period running from July 25, 2014 through September 23, 2014.

PURPOSE AND NEED FOR THE PROPOSED ACTION

We propose revisions to the regulations established for the Mexican wolf reintroduction in the 1998 Final Rule and the Mexican Wolf Recovery Program’s section 10(a)(1)(A) research and recovery permit (TE-091551-8 dated 04/04/2013). The purpose of our proposed action is to further the conservation of the Mexican wolf by improving the effectiveness of the Reintroduction Project in managing the experimental population. We intend to do this by: (1) modifying the geographic boundaries in which Mexican wolves are managed south of Interstate-40 in Arizona and New Mexico under section 10(j) of the Endangered Species Act; (2) modifying the management regulations that govern the initial release, translocation, removal and take (see the definition of “take” provided in the List of Definitions) of Mexican wolves; and (3) issuing a section 10(a)(1)(A) permit for the MWEPA and areas outside of the MWEPA. Revisions to the 1998 Final Rule and the section 10(a)(1)(A) permit are needed because: (1) under the current regulations we will not be able to achieve the necessary population growth, distribution and recruitment that would contribute to the persistence of, and improve the genetic variation within, the experimental population; (2) there is a potential for Mexican wolves to disperse into southern Arizona and New Mexico from reintroduction areas in the states of Sonora and Chihuahua in northern Mexico; and (3) certain provisions lack clarity, are inadequate, and/or limit the efficacy and flexibility of our management of the experimental population of Mexican wolves.

In order to satisfy our purpose and need, our Proposed Action is intended to:

- Increase the total number of wolves in the experimental population and allow for their distribution over a larger area. A larger population of wolves distributed over a larger area has a higher probability of persistence than a small population in a small area.

- Provide additional areas for initial release of Mexican wolves into unoccupied suitable habitat thereby increasing the likelihood that those releases will be successful. More successful releases can provide the number of effective migrants per generation into the experimental population needed to improve the genetic variation within the population and to replace wolves that may be lost from the population due to management removal actions or mortalities.

- Improve the genetic variation within the experimental population. Higher levels of genetic variation decrease the risk of inbreeding depression and increase the probability of persistence (i.e., lowers the extinction risk) of a small population. With better representation of genetic variation, the experimental population is also better able to support the loss of individual wolves with a particular genetic make-up.

- Use the captive Mexican wolf population as the source population that will provide the genetic interchange necessary to improve the genetic variation within the experimental population. Until there are other populations of Mexican wolves established in the wild, the captive population is the only source of effective migrants to the experimental population.

- Accommodate natural dispersal behavior by allowing the experimental population to occupy and establish territories in areas of suitable habitat throughout an expanded MWEPA. Natural dispersal and colonization of new areas will improve the probability of persistence of the experimental population.
PROPOSED REVISION TO THE REGULATIONS FOR THE NONESSENTIAL EXPERIMENTAL POPULATION OF THE MEXICAN WOLF (CANIS LUPUS BAILEYI)

FINAL ENVIRONMENTAL IMPACT STATEMENT

- Improve the effectiveness of the Reintroduction Project through the use of voluntary management agreements. Such agreements can further the conservation of the Mexican wolf through the proactive implementation of management actions taken in cooperation with willing private landowners and tribal governments.

- Effectively manage Mexican wolves within an expanded MWEPA in a manner that furthers the conservation of the Mexican wolf while being responsive to the needs of the local community in cases of depredation or nuisance behavior by wolves. We expect that modifying the provisions governing the take of Mexican wolves to provide clarity and consistency will contribute to our efforts to find the appropriate balance that supports wolf population growth while minimizing nuisance and depredation impacts on local stakeholders.

- Establish a coherent management regime under the proposed 10(j) rule in an expanded MWEPA. The area of Arizona and New Mexico south of I-10 may provide stepping stone habitat and dispersal corridors for wolves dispersing north from Mexico and south from the experimental population in the BRWRA. Management of all Mexican wolves in this area under the proposed 10(j) rule will improve the effectiveness of the Reintroduction Project in minimizing and mitigating wolf-human conflict.

PROPOSED ACTION AND ALTERNATIVES

We are proposing revisions to the regulations established for the Mexican wolf reintroduction in the 1998 Final Rule and the Mexican Wolf Recovery Program’s section 10(a)(1)(A) research and recovery permit (TE-091551-8 dated 04/04/2013). In summary we propose to:

- Modify the geographic boundaries in which Mexican wolves are managed south of Interstate-40 in Arizona and New Mexico under section 10(j) of the Endangered Species Act.

- Modify the management regulations that govern the initial release, translocation, removal and take (see the definition of “take” provided in the List of Definitions) of Mexican wolves.

- Issue a section 10(a)(1)(A) permit for the MWEPA and areas outside of the MWEPA.

These actions would be implemented through a Final Nonessential Experimental Rule, an Endangered Species Act (Act) Section 10(a)(1)(A) research and recovery permit, and provision of federal funding.
Four alternatives, including the no action alternative, are brought forward for further analysis:

**ALTERNATIVE ONE:**

- MWEPA Expansion with Management Zones;
- Expanded Zone 1;
- Phased Management;
- Achieve an Experimental Population Objective of 300 to 325 wolves; and
- Modified provisions for take of Mexican wolves.

![Figure ES-2. Alternative One (Proposed Action and Preferred Alternative)](image)

Alternative One is our proposed action and preferred alternative. Under this alternative we would:

- Make geographic boundary changes that:
  - Remove the designation of the White Sands Wolf Recovery Area (WSWRA) as the back-up area for the initial release of Mexican wolves from captivity.
  - Remove from the MWEPA the small portion of Texas lying north of U.S. Highway 62/80 to the Texas-New Mexico boundary.
o Move the southern boundary of the MWEPA in Arizona and New Mexico from Interstate-10 to the United States-Mexico international border.

o Designate three wolf management zones within the expanded MWEPA and discontinue the designation of the BRWRA:

- Zone 1 is an area of 12,507 mi² (32,392 km²) within the MWEPA where Mexican wolves would be allowed to naturally disperse into and occupy and where Mexican wolves may be initially released from captivity or translocated. Approximately 83 percent of Zone 1 (10,359 mi²/26,830 km²) has suitable habitat for wolves (Figure 2-6). Zone 1 would include all of the Apache and Gila National Forests (the existing BRWRA); the Sitgreaves National Forest; the Payson, Pleasant Valley, and Tonto Basin Ranger Districts of the Tonto National Forest; and the Magdalena Ranger District of the Cibola National Forest.

- Zone 2 is an area of 78,756 mi² (203,978 km²) within the MWEPA where Mexican wolves would be allowed to naturally disperse into and occupy and where Mexican wolves may be translocated. On federal land in Zone 2 initial releases of Mexican wolves would be limited to pups less than five months old to allow for the cross-fostering of pups from the captive population into the wild, and to enable translocation-eligible adults to be re-released with pups born in captivity. On private and tribal land in Zone 2 Mexican wolves of any age, including adults could also be initially released under Service and state approved management agreements with private landowners or a Service approved management agreements with tribal governments. Approximately 27 percent (21,004 mi²/54,339 km²) of Zone 2 has suitable habitat for wolves (Figure 2-1). The northern boundary of Zone 2 is Interstate Highway 40; the western boundary extends south from Interstate Highway 40 and follows Arizona State Highway 93, Arizona State Highway 89/60, Interstate Highway 10, and Interstate Highway 19 to the United States-Mexico international border; the southern boundary is the United States-Mexico international border; the eastern boundary is the United States-Mexico international border heading east, then follows New Mexico State Highway 81/146 north to Interstate Highway 10, then along New Mexico State Highway 26 to Interstate Highway 25; the boundary continues along New Mexico State Highway 70/54/506/24; the eastern boundary follows the eastern edge of Otero County, New Mexico, to the north and then along the southern and then eastern edge of Lincoln County, New Mexico, until it intersects with New Mexico State Hwy 285 and follows New Mexico State Highway 285 north to the northern boundary of Interstate Highway 40. Zone 2 excludes the area in Zone 1.

- Zone 3 is an area of 62,590 mi² (162,108 km²) within the MWEPA where Mexican wolves would be allowed to disperse into and occupy but neither initial releases nor translocations would occur. Zone 3 is an area of less suitable Mexican wolf habitat where Mexican wolves would be more actively managed under the authorities of the proposed rule to reduce human conflict. Approximately 1 percent (882 mi²/2,283 km²) of Zone 3 has suitable habitat for wolves (Figure 2-1). Zone 3 is two separate geographic areas on the eastern and western sides of the MWEPA. One area of Zone 3 is in western Arizona and the other in eastern New Mexico. In Arizona, the northern boundary of Zone 3 is Interstate Highway 40; the eastern boundary extends south from Interstate Highway 40 and follows State Highway 93, State Highway 89/60, Interstate Highway 10, and Interstate Highway 19 to the United States-Mexico international border; the southern boundary is the United States-Mexico international border; the western boundary is the Arizona-California State border. In New Mexico, the northern boundary of Zone 3 is Interstate Highway 40; the eastern boundary is the New Mexico-Texas State border; the southern boundary is the United States-Mexico international border heading west, then follows State Highway 81/146 north to Interstate Highway 10, then
along State Highway 26 to Interstate Highway 25, the southern boundary continues along State Highway 70/54/506/24; the western boundary follows the eastern edge of Otero County to the north and then along the southern and then eastern edge of Lincoln County until it follows State Highway 285 north to the northern boundary of Interstate Highway 40.

- Make management changes that:
  - Allow initial release of Mexican wolves throughout the entire Zone 1 in accordance with a phased management approach.
  - Allow Mexican wolves to disperse naturally from Zone 1 into, and within the MWEPA (Zones 2 and 3) and occupy the MWEPA (Zones 1, 2 and 3) in accordance with a phased management approach.
  - Allow the translocation of wolves at selected release sites on federal land within Zones 1 and 2 of the MWEPA in accordance with a phased management approach.
  - Allow wolves to occupy federal and non-federal land in the MWEPA except in the case of depredation or other nuisance behavior that cannot be effectively managed through non-removal techniques.
  - Capture and remove wolves on tribal land if requested by the tribal government.
  - Implement a phased management approach so that in:
    - Phase 1: Initial release of Mexican wolves would be conducted throughout Zone 1 with the exception of the area west of State Highway 87 in Arizona. No translocations would be conducted west of State Highway 87 in Arizona in Zone 2. Mexican wolves would be allowed to disperse naturally from Zone 1 into, and within the MWEPA (Zones 2 and 3) and occupy the MWEPA (Zones 1, 2 and 3). However, during Phase 1 dispersal and occupancy in Zone 2 west of State Highway 87 would be limited to the area north of State Highway 260 and west to Interstate 17.
    - Phase 2: If determined to be necessary by either the 5-Year or 8-Year evaluation: initial release of Mexican wolves would occur throughout Zone 1 including the area west of State Highway 87 in Arizona; No translocations would be conducted west of Interstate Highway 17 in Arizona. Mexican wolves would be allowed to disperse naturally from Zone 1 into, and within the MWEPA (Zones 2 and 3) and occupy the MWEPA (Zones 1, 2 and 3) with the exception of those areas in Zone 2 west of State Highway 89 in Arizona.
    - Phase 3: If determined to be necessary by the 5-Year or 8-Year evaluation: Initial release of Mexican wolves would be conducted throughout the entire Zone 1 including the area west of State Highway 89 in Arizona; no translocations would be conducted west of State Highway 89 in Arizona; Mexican wolves would be allowed to disperse naturally from Zone 1 into, and within the MWEPA (Zones 2 and 3) and occupy the MWEPA (Zones 1, 2 and 3).
    - Year 12 and beyond: Phased management approach ends: Initial release of Mexican wolves could be conducted throughout entire Zone 1; Translocations could be conducted at selected translocation sites on federal land and on non-federal private and tribal land with voluntary management agreements within Zones 1 and 2 of the MWEPA. Mexican wolves would be allowed to disperse naturally from Zone 1 into, and within the MWEPA (Zones 2 and 3) and occupy the MWEPA (Zones 1, 2 and 3).
  - Revise the regulations for the take of Mexican wolves on federal and non-federal land within the entire MWEPA (Zones 1, 2 and 3):
Proposed Revision to the Regulations for the Nonsessential Experimental Population of the Mexican Wolf (*Canis lupus baileyi*)

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- Revise the conditions that determine when we would issue a permit to allow livestock owners or their agents to take (including intentional harassment or kill) any Mexican wolf that is in the act of biting, wounding or killing livestock (see definition of *livestock* in the List of Definitions) on federal land;

- Allow domestic animal owners or their agents to take (including kill or injure) any Mexican wolf that is in the act of biting, wounding or killing domestic animals (see definition of *domestic animal* in the List of Definitions) on non-federal land anywhere within the MWEPA;

- Pursuant to a removal action authorized by the Service or a designated agency, the Service or designated agency may issue permits to allow domestic animal owners or their agents (e.g., employees, land manager, local officials) to take (including intentional harassment or kill) any Mexican wolf that is present on non-federal land where specified in the permit.

- Revise the conditions under which take will be authorized in response to unacceptable impacts of Mexican wolf predation on wild native ungulate herds. An unacceptable impact would be determined by a state agency based upon ungulate management goals, or a 15 percent decline in an ungulate herd as documented by a State agency, using their preferred methodology, based on the preponderance of evidence from bull to cow ratios, cow to calf ratios, hunter days, and/or elk population estimates.

- Maintain an experimental Mexican wolf population of 300 to 325 wolves in the MWEPA.

- Subject to Service and state approved management agreements, the Service or a designated agency may develop and implement management actions on private land in management Zones 1 and 2 within the MWEPA in voluntary cooperation with private landowners, including but not limited to initial release and translocation of wolves onto private lands if requested by the landowner.

- Subject to agreements with tribal governments, the Service may develop and implement management actions on tribal trust land in management Zones 1 and 2 within the MWEPA in voluntary cooperation with tribal governments including but not limited to initial release, translocation onto Tribal trust lands, capture, and removal of Mexican wolves from Tribal trusts lands if requested by the tribal government.

- Revise and reissue the Mexican Wolf Recovery Program’s section 10(a)(1)(A) research and recovery permit (TE-091551-8 dated 04/04/2013) so that it applies to both the MWEPA and areas outside of the MWEPA. Under this permit we would authorize removal of Mexican wolves that can be identified as coming from the experimental population that disperse to establish territories in areas outside of the MWEPA. Based in part on their genetic value relative to the Mexican wolf population, we may make a determination to maintain these wolves in captivity, translocate them to areas of suitable habitat within the MWEPA, or transfer them to Mexico.
ALTERNATIVE TWO:

- MWEPA Expansion with Management Zones;
- Modified Provisions for Take of Mexican Wolves

Figure ES-3. Alternative Two

Alternative Two would include all the initiatives proposed under Alternative One except under this alternative we would not: adopt a phased management approach or; establish a Mexican wolf experimental population objective of from 300 to 325 wolves within the entire MWEPA or; expand the geographic boundaries of the proposed management Zone 1 beyond the Apache and Gila National Forests (the existing BRWRA).
**ALTERNATIVE THREE:**

![Map](image)

**Figure ES-4. Alternative Three**

Alternative Three would include all the initiatives proposed under Alternative One except under this alternative we would not adopt a phased management approach or; establish a Mexican wolf experimental population objective of from 300 to 325 wolves within the entire MWEPA; or include proposed management changes that would modify the regulations for take of Mexican wolves within the MWEPA.
ALTERNATIVE FOUR:

Figure ES-5. Alternative Four (No Action)

Under Alternative Four no changes to the 1998 Final 10(j) Rule for the Mexican wolf or the Mexican Wolf Recovery Program’s section 10(a)(1)(A) research and recovery permit (TE-091551-8 dated 04/04/2013) would be made.

SUMMARY OF ACTIONS BY ALTERNATIVE

Below we provide a tabular comparison of the proposed action and action alternatives.
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<th>Alternative</th>
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<tbody>
<tr>
<td>Remove the designation of the White Sands Wolf Recovery Area (WSWRA) as the back-up area for the initial release of Mexican wolves from captivity.</td>
<td>X</td>
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<td>Remove from the MWEPA the small portion of Texas lying north of U.S. Highway 62/80 to the Texas-New Mexico boundary.</td>
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<td>Move the southern boundary of the MWEPA in Arizona and New Mexico from Interstate 10 to the United States-Mexico international border.</td>
<td>X</td>
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<td>Designate three wolf management zones with a larger Zone 1 within the expanded MWEPA and discontinue the designation of the BRWRA: Zone 1 is an area within the MWEPA where Mexican wolves would be allowed to naturally disperse into and occupy and where Mexican wolves may be initially released from captivity or translocated. Zone 1 would include all of the Apache and Gila National Forests (the existing BRWRA), the Sitgreaves National Forests, the Payson, Pleasant Valley, and Tonto Basin Ranger Districts of the Tonto National Forest, and the Magdalena Ranger District of the Cibola National Forest. Zone 2 is an area within the MWEPA where Mexican wolves would be allowed to naturally disperse and occupy and where Mexican wolves may be translocated. On federal land in Zone 2 initial releases of Mexican wolves would be limited to pups less than five months old to allow for the cross-fostering of pups from the captive population into the wild, and to enable translocation-eligible adults to be re-released with pups born in captivity. On private and tribal land in Zone 2 Mexican wolves of any age, including adults, could also be initially released under Service and state approved management agreements with private landowners or Service-approved management agreements with tribal governments. Zone 2 would include the area of the MWEPA not included in Zone 1 or 3 south of I-40 to the international border with Mexico Zone 3 is an area within the MWEPA where Mexican wolves would be allowed to</td>
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Designate three wolf management zones within the expanded MWEPA and discontinue the designation of the BRWRA:

Zone 1 is an area within the MWEPA where Mexican wolves would be allowed to occupy and where wolves may be initially released or translocated. Zone 1 would include all of the Apache and Gila National Forests (the existing BRWRA).

Zone 2 is an area within the MWEPA where Mexican wolves would be allowed to naturally disperse into and occupy and where Mexican wolves may be translocated. On federal land in Zone 2 initial releases of Mexican wolves would be limited to pups less than five months old to allow for the cross-fostering of pups from the captive population into the wild, and to enable translocation-eligible adults to be re-released with pups born in captivity. On private and tribal land in Zone 2 Mexican wolves of any age, including adults could also be initially released under Service and state approved management agreements with private landowners or a Service approved management agreements with tribal governments. Zone 2 would include the area of the MWEPA not included in Zone 1 or 3 south of I-40 to the international border with Mexico.

Zone 3 is an area within the MWEPA where Mexican wolves would be allowed to disperse into and occupy but neither initial releases nor translocations would occur. Zone 3 is an area of less suitable Mexican wolf habitat where Mexican wolves would be more actively managed under the authorities of the proposed rule to reduce human conflict. Zone 3 would include the area of the MWEPA not included in Zone 1 or 2 south of I-40 to the international border with Mexico.

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<td>Allow initial release of Mexican wolves throughout the entire Zone 1.</td>
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<td>Allow Mexican wolves to disperse naturally from Zone 1 into, and within the MWEPA (Zones 2 and 3) and occupy the MWEPA (Zones 1, 2 and 3).</td>
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<td>Allow the translocation of wolves at selected release sites on federal land within Zones 1 and 2 of the MWEPA.</td>
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<td>Allow wolves to occupy federal and non-federal land in the MWEPA except in the case of depredation or other nuisance behavior that cannot be effectively managed through non-removal techniques.</td>
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<td>Capture and remove wolves on tribal land if requested by the tribal government.</td>
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<td>Implement a phased management approach so that in:</td>
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<td>- Phase 1: Initial release of Mexican wolves can occur throughout Zone 1 with the exception of the area west of State Highway 87 in Arizona. No translocations can be conducted west of State Highway 87 in Arizona in Zone 2. Mexican wolves can disperse naturally from Zone 1 into, and within the MWEPA (Zones 2 and 3) and occupy the MWEPA (Zones 1, 2 and 3). However, during Phase 1 dispersal and occupancy in Zone 2 west of State Highway 87 will be limited to the area north of State Highway 260 and west to Interstate 17.</td>
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<td>- Phase 2: If determined to be necessary by either the 5-Year or 8-Year evaluation: initial release of Mexican wolves can occur throughout Zone 1 including the area west of State Highway 87 in Arizona; No translocations can be conducted west of Interstate Highway 17 in Arizona. Mexican wolves can disperse naturally from Zone 1 into, and within the MWEPA (Zones 2 and 3) and occupy the MWEPA (Zones 1, 2 and 3) with the exception of those areas in Zone 2 west of State</td>
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<td>• Phase 3: If determined to be necessary by the 5-Year or 8-Year evaluation: Initial release of Mexican wolves can occur throughout the entire Zone 1 including the area west of State Highway 87 in Arizona; no translocations can be conducted west of State Highway 89 in Arizona; Mexican wolves can disperse naturally from Zone 1 into, and within the MWEPA (Zones 2 and 3) and occupy the MWEPA (Zones 1, 2 and 3).</td>
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<td>• Year 12 and beyond: Phased management approach ends: Initial release of Mexican wolves can occur throughout entire Zone 1; Translocations can be conducted at selected translocation sites on federal land and on non-federal private and tribal land with voluntary management agreements within Zones 1 and 2 of the MWEPA. Mexican wolves can disperse naturally from Zone 1 into, and within the MWEPA (Zones 2 and 3) and occupy the MWEPA (Zones 1, 2 and 3).</td>
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Revise the regulations for the take of Mexican wolves on federal and non-federal land within the MWEPA (Zones 1, 2 and 3):
- Revise the conditions that determine when we would issue a permit to allow livestock owners or their agents to take (including intentional harassment or kill) any Mexican wolf that is in the act of biting, wounding or killing livestock on federal land;
- Allow domestic animal owners or their agents to take (including kill or injure) any Mexican wolf that is in the act of biting or killing domestic animals on non-Federal land anywhere in the MWEPA;
- Pursuant to a removal action authorized by the Service or a designated agency, the Service or designated agency may issue permits to allow domestic animal owners or their agents (e.g., employees, land manager, local officials) to take (including intentional harassment or kill) any Mexican wolf that is present on non-federal land

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where specified in the permit; and
- Revise the conditions under which take will be authorized in response to unacceptable impacts of Mexican wolf predation on wild native ungulate herds. An unacceptable impact will be determined determined by a state agency based upon ungulate management goals, or; a 15 percent decline in an ungulate herd as documented by a State agency, using their preferred methodology, based on the preponderance of evidence from bull to cow ratios, cow to calf ratios, hunter days, and/or elk population estimates.

Revise the regulations for the take of Mexican wolves on federal and non-federal land within the MWEPA (Zones 1, 2 and 3):
- Maintain an experimental Mexican wolf population of 300 to 325 wolves in the MWEPA.

Subject to Service and state approved management agreements develop and implement management actions on private land in management Zones 1 and 2 within the MWEPA by the Service or an authorized agency in voluntary cooperation with private landowners.

Subject to agreements with tribal governments, the Service may develop and implement management actions on tribal trust land in management Zones 1 and 2 within the MWEPA in voluntary cooperation with tribal governments including but not limited to initial release, translocation onto Tribal trust lands, capture, and removal of Mexican wolves from Tribal trusts lands if requested by the tribal government.

Revise and reissue the Mexican Wolf Recovery Program’s section 10(a)(1)(A) research and recovery permit (TE-091551-8 dated 04/04/2013) so that it applies to both the MWEPA and areas outside of the MWEPA. Under this permit we would authorize removal of Mexican wolves that can be identified as coming from the experimental population that disperse to establish territories in areas outside of the MWEPA.
**SUMMARY OF ENVIRONMENTAL IMPACTS**

In this section we provide a comparative summary of the assessment of environmental consequences by alternative.

<table>
<thead>
<tr>
<th>Resource Area</th>
<th>Alternative One (Proposed Action)</th>
<th>Alternative Two</th>
<th>Alternative Three</th>
<th>Alternative Four (No Action)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land Use</td>
<td>No significant adverse direct or indirect impacts in Zones 1-3</td>
<td>No significant adverse direct or indirect impacts in Zones 1-3</td>
<td>No significant adverse direct or indirect impacts in Zones 1-3</td>
<td>No significant adverse direct or indirect impacts</td>
</tr>
<tr>
<td>Biological Resources (vegetation)</td>
<td>No significant direct or indirect adverse impact in Zones 1-3</td>
<td>No significant direct or indirect adverse impact in Zones 1-3</td>
<td>No significant direct or indirect adverse impact in Zones 1-3</td>
<td>No significant direct or indirect impacts</td>
</tr>
<tr>
<td>Biological Resources (wild ungulate prey)</td>
<td>No significant direct adverse impact in Zones 1-3 with mitigation. No significant direct adverse impact Zone 3.</td>
<td>No significant direct adverse impact in Zones 1-3 with mitigation. No significant impact Zone 3.</td>
<td>Less than significant direct adverse impact Zones 1 and 2. No significant direct adverse impact Zone 3.</td>
<td>Less than significant direct adverse impacts in the BRWRA.</td>
</tr>
<tr>
<td>Biological Resources (other predator, scavenger and non-ungulate wild prey species) including special status and listed T/E species)</td>
<td>No significant impacts to other predators or non-ungulate wild prey in Zones 1-3. Less than significant beneficial impact to scavengers in Zones 1 and 2.</td>
<td>No significant impacts to other predators or non-ungulate wild prey in Zones 1-3. Less than significant beneficial impact to scavengers in Zones 1 and 2.</td>
<td>No significant impacts to other predators or non-ungulate wild prey in Zones 1-3. Less than significant beneficial impact to scavengers in Zones 1 and 2.</td>
<td>Less than significant direct and indirect adverse impact in the BRWRA.</td>
</tr>
<tr>
<td>Biological Resources (special status and listed T/E species)</td>
<td>No significant impact in Zones 1-3</td>
<td>No significant impact in Zones 1-3</td>
<td>No significant impact in Zones 1-3</td>
<td>No significant impact</td>
</tr>
<tr>
<td>Biological Resources (listed T/E species: the Mexican wolf experimental population and subspecies)</td>
<td>Significant beneficial impact</td>
<td>Significant beneficial impact</td>
<td>Significant beneficial impact</td>
<td>Significant direct and indirect adverse impact</td>
</tr>
</tbody>
</table>
## Final Environmental Impact Statement

<table>
<thead>
<tr>
<th>Resource Area</th>
<th>Alternative One (Proposed Action)</th>
<th>Alternative Two</th>
<th>Alternative Three</th>
<th>Alternative Four (No Action)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic Activity (ranching /livestock production)</td>
<td>Less than significant direct adverse impact in Zones 1 and 2; no significant adverse direct or indirect impact in Zone 3</td>
<td>Less than significant direct adverse impact in Zones 1 and 2; no significant adverse direct or indirect impact in Zone 3</td>
<td>Less than significant adverse direct impact in Zones 1 and 2; no significant adverse direct or indirect impact in Zone 3</td>
<td>Less than significant direct adverse impact in the BRWRA.</td>
</tr>
<tr>
<td>Economic Activity (hunting)</td>
<td>No significant adverse direct or indirect impacts in Zones 1-3 with mitigation</td>
<td>No significant adverse direct or indirect impacts in Zones 1-3 with mitigation</td>
<td>Less than significant adverse indirect impacts in Zones 1-2; no significant adverse direct or indirect impact in Zone 3.</td>
<td>Less than significant adverse indirect impacts in the BRWRA.</td>
</tr>
<tr>
<td>Economic Activity (tourism and outdoor recreation)</td>
<td>No significant beneficial impact</td>
<td>No significant beneficial impact</td>
<td>No significant beneficial impact</td>
<td>No significant beneficial impact</td>
</tr>
<tr>
<td>Human Health/Public Safety</td>
<td>No significant adverse direct or indirect impact in Zones 1-3</td>
<td>No significant adverse direct or indirect impact in Zones 1-3</td>
<td>No significant adverse direct or indirect impact in Zones 1-3</td>
<td>No significant adverse direct or indirect impact</td>
</tr>
<tr>
<td>Environmental Justice</td>
<td>Mitigated less than significantly disproportionately high and adverse impacts to population groups of concern</td>
<td>Mitigated less than significantly disproportionately high and adverse impacts to population groups of concern</td>
<td>Mitigated less than significantly disproportionately high and adverse impacts to population groups of concern</td>
<td>Mitigated less than significantly disproportionately high and adverse impacts to population groups of concern</td>
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<tr>
<td>Cumulative Impacts</td>
<td>No significant adverse cumulative impacts on wild prey (elk). No significant cumulative beneficial effects on other wildlife species (scavengers). No significant beneficial</td>
<td>No significant adverse cumulative impacts on wild prey (elk). No significant cumulative beneficial effects on other wildlife species (scavengers). No</td>
<td>No significant adverse cumulative impacts on wild prey (elk). No significant cumulative beneficial effects on other wildlife species (scavengers). No</td>
<td>N/A</td>
</tr>
</tbody>
</table>
**Resource Area** | **Alternative One (Proposed Action)** | **Alternative Two** | **Alternative Three** | **Alternative Four (No Action)**
--- | --- | --- | --- | ---
Cumulative impact on the federally listed Mexican wolf or experimental population. Less than significant adverse cumulative impacts on ranching/livestock production. | Significant beneficial cumulative impact on the federally listed Mexican wolf or experimental population. Less than significant adverse cumulative impacts on ranching/livestock production. | Significant beneficial cumulative impact on the federally listed Mexican wolf or experimental population. Less than significant adverse cumulative impacts on ranching/livestock production. | N/A

**Relationship Between Short-Term Uses of Man's Environment and the Maintenance and Enhancement of Long-term Productivity**
Would not permanently narrow the range of beneficial uses of the human environment or adversely affect the long term productivity of the project area. | Would not permanently narrow the range of beneficial uses of the human environment or adversely affect the long term productivity of the project area. | Would not permanently narrow the range of beneficial uses of the human environment or adversely affect the long term productivity of the project area. | N/A

**Irreversible and Irretrievable Commitment of Resources**
Would not result in a significant irreversible or irreplaceable commitment of resources. | Would not result in a significant irreversible or irreplaceable commitment of resources. | Would not result in a significant irreversible or irreplaceable commitment of resources. | N/A