

Mexican Wolf Blue Range Reintroduction Project
Replacement Release, Initial Release and Translocation Proposal for 2015
IFT Final Proposal: February 24, 2015

This document outlines management options for a replacement release(s) of Mexican wolves into the former Blue Range Wolf Recovery Area (BRWRA) in Arizona in 2015 and strategies for initial releases and translocations in New Mexico within the former BRWRA. The replacement releases, initial releases and translocations analyzed in this document are consistent with:

- (1) *the 2014 Final Environmental Impact Statement (EIS) for the Proposed Revision to the Regulations for the Nonessential Experimental Population of the Mexican Wolf (Canis lupus baileyi)*,
- (2) *the 2015 Record of Decision for the Proposed Revision to the Regulations for the Nonessential Experimental Population of the Mexican Wolf (Canis lupus baileyi)*,
- (3) *the 2015 Final Rule - Revisions to the Regulations for the Nonessential Experimental Population of the Mexican Wolf*,

These documents analyzed the potential environmental and socioeconomic impacts of a Mexican wolf population in the Mexican Wolf Experimental Population Area (MWEPA), including utilizing initial releases and translocations. This document represents a planning document. From 1998-2014, we have conducted 25 initial release events (95 wolves) and 67 translocations events (119 wolves).

The proposed actions are: (1) to release wolves from the captive Mexican wolf breeding population into the existing wild wolf population in Arizona to replace wolves that have been removed from the population due to illegal mortality following the guidelines from the Arizona Game and Fish Commission (AGFC) in 2012, (2) conduct initial releases and translocations in the Gila National Forest of New Mexico where previously approved translocation sites exist, (3) conduct cross-fostering of pups in New Mexico to existing den sites, as timing of production in captivity and the wild allow, and (4) consider a suite of previously approved translocation sites for consideration for wolves that are moved for management purposes during 2015 (primarily relative to individual wolves dispersing outside of the MWEPA boundary).

Replacement and initial release wolves from the captive breeding program will be selected to increase genetic diversity of the wild wolf population within the MWEPA as well as other desirable characteristics (i.e. fear of humans, and limited depredation or nuisance history). In particular, the IFT recognizes that the genetic diversity of the MWEPA is a management concern considering that the three most genetically unique animals relative to the MWEPA population (AM806, AF861, AM871), either died or disappeared from the population during 2012 and 2013. In addition, 16 out of 20 potentially breeding packs in 2015 have a descendent of the Bluestem pack as one of the members of the breeding pair (Figure 1). Both breeding members are descendants of the Bluestem pack in three out of these 20 pairs (Figure 1). While this is of immediate genetic concern, it also has long-term impacts on the population because breeding between close relatives increases the likelihood that negative genetic characteristics will become fixed (i.e. always present in all

individuals) in the population. Thus, the IFT took action to prevent a pairing between full siblings (from different litters) from the Maverick pack, m1336 and AF1305 of the Rim pack (Figure 1).

An additional method to increase genetic variability is to conduct cross fostering, if feasible. The IFT is proposing to conduct cross-fostering operations (the removal of pups from the captive breeding population and the placement of these pups into active wild wolf dens) to packs within Zone 1 or Zone 2 of the MWEPA, in accordance with the guidance of Phase 1 (see 2015 Final Rule). We do not predict that wolves will breed and produce pups outside of the Apache and Gila National Forest and Fort Apache Indian Reservation (FAIR; Figure 1) during 2015. Thus, we are limiting areas to conduct cross-fostering efforts to the former BRWRA and Fort Apache Indian Reservation (FAIR).

Background

Replacement Release Eligibility:

In January 2012, the AGFC provided direction to the Arizona Game and Fish Department (Department) contingent on the Mexican Wolf Reintroduction Program's Interagency Field Team (IFT) regarding any future initial wolf release into the BRWRA in Arizona. The AGFC directed AGFD IFT personnel to consider only initial wolf releases to replace wolves that were removed from the existing wild wolf population due to unlawful take of wolves, or other events such as vehicle strikes, prey interactions, inter or intraspecific mortality, and lightning strikes. The decision to replace wolves that were killed unlawfully would be delegated to the Department Director. The decision to replace wolves removed due to other events would reside at the AGFC level. For purposes of this proposal, only those wolves unlawfully shot from within Arizona from 2011 to 2014 will be considered for replacement. The IFT documented three wolves unlawfully killed in Arizona in 2014 (F1218, M1275, and AM1287).

The Department has the authority to replace wolves unlawfully killed only in Arizona as provided in the AGFC direction. Neither the Department nor the AGFC is providing direction relative to the release of wolves in New Mexico. The U.S. Fish and Wildlife Service has the authority to release wolves in New Mexico, but is not limited by the AGFC direction on replacement releases.. This document is a joint document written by Arizona Game and Fish and the U.S. Fish and Wildlife Service, but Arizona Game and Fish has no authority on how and when releases will be conducted in New Mexico.

Mexican wolves unlawfully killed in Arizona:

The following wolves were not reported to authorities within 24-hours as required by both the 1998 and 2015 Final Rule. Therefore, regardless of the specifics of the individual case, the wolves are considered unlawfully taken. If the wolves were shot in accordance with the take provisions of the 1998 or 2015 Final Rule AND reported to authorities within 24 hours, then an investigation would determine if shootings were in fact lawful.

In December 2011, mp1242 from the Bluestem Pack was unlawfully shot and killed in the vicinity of Big Lake in Arizona.

In March 2012, fp1247 from the Hawks Nest Pack was unlawfully shot and killed in the vicinity of Williams Valley in Arizona.

In July 2012, breeding male wolf AM806 from the Bluestem Pack was unlawfully shot and killed within the pack's territory near Big Lake in Arizona.

In December 2012, AF1208 from the Hawks Nest Pack was unlawfully shot and killed within the pack's territory in Arizona.

In April 2014, M1275 from the Bluestem Pack was unlawfully shot and killed within the pack's territory in Arizona.

In May 2014, F1218 from the Hoodoo Pack was unlawfully shot and killed in the vicinity of Eagle Creek in Arizona.

In September 2014, AM1287 of the Elk Horn Pack was discovered dead, likely from a gun shot in the vicinity of Escudilla Mountain in Arizona.

In summary, seven wolves were unlawfully killed in Arizona from 2011 to 2014. Three replacement releases (M1133, F1218, F1126) were undertaken since 2012. Although all of these wolves were unsuccessful in establishing in the area of release (two were translocated to New Mexico [M1133 and F1126], and one died [F1218] in 2014 and is accounted for in the seven unlawfully killed animals), they are considered an offset to the number unlawfully killed regardless of the ultimate outcome. Thus, the IFT is proposing to continue to provide replacement wolves for the loss of up to four wolves as part of this proposal.

Replacement Release, Initial Release and Translocation Strategies:

Translocations involve moving a wolf from one location in the wild to another location within the MWEPA. The animals involved in translocations may have spent a period of time in captivity prior to translocation. Entering 2015, the USFWS did not have translocation candidates available in captivity. However, two wolves (AF1305 and m1336) were traveling together and are very closely related (siblings). AF1305 and m1336 had been traveling together since November 2014. The IFT captured these wolves during the 2015 helicopter count operation. These wolves were paired in captivity with a captive female and a captive male for initial release, or replacement release, and translocation back into the former BRWRA in 2015.

The splitting of the Rim pair and placing each of them with captive mates resulted in two pairings in captivity: (1) AF1305 and M1130 (Rim Pack) and (2) m1336 and F1226. AF1305 and M1130 are proposed to be released (via hard release or a soft mesh pen [Corduroy Creek, Long Cienega, Fish Bench or Bear Wallow]) back into the vacant Rim Pack territory prior to whelping pups (Figure 3). The other pair, m1336 and F1226, is proposed to be initially released in June, after whelping pups in captivity, via a mesh pen at either the West Fork of the Gila, Half Moon Park, or McKenna Park sites depending on the movement of wolves during 2015. Other wolves that are translocated for management purposes will be translocated to the Gila Flat, Meason Flat, North Seco, or MeOwn

sites in New Mexico. These sites are currently unoccupied by Mexican wolves (Figure 2), and would allow for a single wolf or pair of wolves to be translocated to an unoccupied site.

The preceding paragraph outlines how the IFT is proposing to proceed based on the existing status of the wolves and the expectation of future conditions. However, the IFT recognizes that contingencies need to be in place for unforeseen circumstances (i.e., other wolves occupy vacant territories or release sites, pairs do not breed in captivity, or decision makers do not authorize releases). As such, the IFT created various scenarios for the public and decision makers to consider and comment on, or decide a path for implementation. Additional options may be considered based on public comment and exigent circumstances.

In addition, other wolves may be captured and be made available for translocation. We will evaluate these wolves on a continual basis to determine if, where, and how a translocation should proceed based on SOP 6.0 (Wolf Translocations) and a full evaluation by the IFT.

Options for Replacement Releases, Translocations, and Initial Releases

The cooperating agencies may consider implementing one or more of the following options.

Option 1 (IFT Preferred Option) – Release AF1305 with M1130 into the Rim Pack Territory within Zone 1 of the MWEPA (former Primary Recovery Zone), and release m1336 and F1226 into the Gila Wilderness within Zone 1 of the MWEPA (Figures 2 and 3).

Proposed Action

This action would involve the release of two pairs (each pair would have one wild wolf, and a naïve wolf). AF1305 and m1336 do not have depredation histories. The prevention of breeding between AF1305 and m1336 was desired to prevent highly inbred pups in the wild. Thus, the IFT captured both wolves during the helicopter capture and paired each with a new captive mate, forming two pairs in captivity. The goal is for both pairs to form a bond and breed prior to release. One release (AF1305 and M1130) would occur before April 30, 2015 (i.e. prior to whelping of pups based on breeding observations) in the Rim Pack territory with a mesh pen at a pre-approved release site (Corduoy Creek, Long Cienega, Fish Bench or Bear Wallow) or as a hard release. AF1305 and M1130 are expected to stay in the area of the Rim Pack traditional territory because of the historical use of the area by AF1305.

The second release (m1336 and F1226) would occur in the Gila Wilderness Area (West Fork of the Gila, Half Moon Park, or McKenna Park) following production of pups in captivity (i.e. in June). This group would be expected to stay for a period of time in the Gila Wilderness Area because of the presence of young pups to tie the pair in the area.

To provide for a situation where sites are occupied by wolf packs in Arizona or New Mexico, the IFT would consider the North Seco site (Figure 2) as an alternative site for the release of one of the pack of wolves. However, we consider this unlikely, given the flexibility of sites in the primary proposal.

Associated Management Actions

Per SOP 5.0 (Initial Releases), both release sites will be: (1) five or more miles from a town, (2) three or more miles from a dwelling occupied year around, (3) three or more miles from Recovery Area boundaries, (4) in areas of adequate prey base, and (5) five or more miles of a den site that wolves are known to occupy. Our primary goal achieved by splitting up the highly related pair and giving each wolf a new unrelated captive mate is to increase the genetic variability of the wild population through the introduction of new wolves and their offspring. Secondarily, the combination of a wild wolf with a naïve wolf may reduce nuisance potential and allow for an increased probability of success of these releases. Of interest in this scenario is that M1130 has been conditioned in a pre-release facility in Mexico where this wolf successfully killed wild game in captivity.

Favorable Attributes of Option 1:

1. The proposed release areas are not grazed during the release time period, although grazing does occur later in the year at a low level. The IFT will develop mitigation measures with affected permittees dependent on where the packs settle. The IFT will have access to a helicopter if removal actions are required.
2. The proposed release areas have had minimal livestock depredation history relative to other areas of the BRWRA.
3. Proposed release method provides the opportunity to successfully integrate naïve wolves with favorable genetic profiles into the existing wild population.
4. Presence of humans will be limited during this time of year because of winter weather and accessibility of the area and/or the remoteness of the release area.
5. Wild/naïve wolf pairings have demonstrated a reduced likelihood of the naïve wolf being involved in nuisance scenarios, in some situations.
6. The release of two wolves that are unrelated to the existing wild wolf population would help to improve the overall genetic diversity.
7. F1226 and M1130 have been subject to the Conditioned Taste Aversion regimen to potentially reduce the likelihood that the wolf will attempt to utilize livestock as a food source. M1130 has been involved in captive prey training regimens in Mexico.

Negative Attributes of Option 1:

1. While the potential for livestock depredation is low in the proposed release areas (Figures 2 and 3), the released wolves may come in contact with livestock. These wolves will need to be actively managed. The IFT will coordinate on the development of mitigation measures with affected permittees dependent on where the pairs settle. The IFT will have access to a helicopter if removal actions are required.
2. Both AF1305 and m1336 are related to the Bluestem Pack (Figure 1). Thus, any offspring of these pairs, regardless of their mate, will be related to the population and resulting future pairings between these offspring and other wolves may produce pups with higher inbreeding coefficients. However, offspring produced with the proposed captive mates serve to dilute the problem relative to a pairing between full siblings.

3. If the pairs do not travel together following the release, it will result in a single naïve animal present on the landscape. Single, naïve animals have not been successful when released at this time of year.

Option 2 - Cross Fostering of Wolf Pups Produced in Captivity into any Wild Mexican Wolf Pack in the MWEPA.

Proposed Action

Cross-fostering refers to applied management actions involving the removal of pups from the captive breeding population and the placement of these pups into active wild wolf dens. Cross-fostering is considered an initial release and must occur within Zone 1 or Zone 2 of the MWEPA, in accordance with the guidance of Phase 1 (see 2015 Final Rule), or on the FAIR with approval by the White Mountain Apache Tribe (WMAT). We do not predict that wolves will breed and produce pups outside of the Apache and Gila National Forest and FAIR (Figure 1) during 2015. Thus, we are limiting areas to conduct cross-fostering efforts to the former BRWRA and FAIR. This operation facilitates captive born pups being raised in the wild by wild wolves.

The IFT is proposing to utilize cross-fostering to increase the genetic diversity in the wild Mexican wolf population within the MWEPA in 2015. Captive pups placed into wild Mexican wolf dens will be of a different genetic profile than existing wolf packs in the MWEPA and, if successfully established, can provide important genetic diversity to the existing wild wolf population. In general, cross-fostering is not recommended for females having their first litter of pups.

Cross-fostering that may occur on FAIR is entirely subject to WMAT approval processes. Thus, cross-fostering that could occur on FAIR would not be considered a replacement release, and is not specifically addressed in this document.

Associated Management Actions

The IFT will develop a specific plan for the cross-fostering of Mexican wolf pups that are produced in captivity during the 2015 breeding season into identified MWEPA packs. This management option requires the following circumstances and considerations:

- Wild Mexican wolf packs display denning behavior in 2015 and the den is located in the former BRWRA.
- Donor pack(s) in captivity are identified and produce viable pups.
- Timing of wild Mexican wolf pack's whelping must appropriately coincide with captive donor pack whelping dates.
- Litters of the wild Mexican wolf packs and the captive donor pack should be of similar sizes to allow for the cross fostering operation to occur.

Favorable Attributes of Option 2:

1. Cross-fostering allows the integration genetically different Mexican wolves, relative to the wild population, to be introduced into the wild without having to release naïve packs/adults.

2. Cross fostering allows naïve wolf pups to be raised by wild wolves and reduces the potential for nuisance wolf interactions that are often associated with the release of naïve adult wolves from captivity.

Negative Attributes of Option 2:

1. The cross-fostering action may disturb the denning activities of the targeted wild pack(s) and can result in pack abandonment of the den.
2. Cross-fostering requires a series of specific events to occur simultaneously (packs den in the former BRWRA or on the FAIR, both the donor and recipient packs have pups within two days of each other, the transfer occurs within the first ten days of birth, the recipient litter size is small enough (≤ 5 pups) to accept donor pups, locating wild pack den sites within ten days of whelping, etc.). Thus, we can not specify individual recipient or donor packs, until the timing of production in captivity and the wild is documented. An absolute maximum of 10 pups (e.g., 5 packs with 2 cross fostered pups to each), will be considered during the 2015 season, of which a maximum of 4 pups may be considered in Arizona consistent with the numbers associated with the replacement release strategy.

Option 3 – Release of a pair (either M1130 X AF1305, or m1336 XF1226) of wolves in the Rim Pack Territory or the Gila Wilderness and hard release of m1336 or AF1305 as a single animal in New Mexico.

Proposed Action

This action would involve the initial release of a single bonded pair of wolves (M1130 X AF1305 or m1336 X F1226) from captivity. In this case, the female would be pregnant and the pair would be released in the same fashion as would occur in Option 1 in Rim Pack Territory, or the Gila Wilderness in Option 1. This action would be dependent upon breeding behavior and preferred if one of the pairs failed to breed. The remaining wild animal would be hard released in New Mexico, rather than remaining paired in captivity. The translocation would occur at Gila Flat, Meason Flat, MeOwn, or North Seco release site and hard released after breeding was determined to be unsuccessful based on observations. The release would correspond with elk calving (~June 1).

This pair would be released before April 30, 2015 in Arizona, dependent on breeding observations, in Rim Pack territory (Figure 3), or in mid-June in New Mexico.

Favorable Attributes of Option 3:

1. The proposed release areas are not grazed during the release time period, although grazing does occur later in the year at a low level. The IFT will develop mitigation measures with affected permittees dependent on where the pack settles. The IFT will have access to a helicopter if removal actions are required.
2. The proposed release area has had minimal livestock depredation history, although the hard released animal in New Mexico will likely travel widely.
3. Presence of humans will be limited during this time of year because of accessibility to the area, and/or free ranging nature of the individual hard release.

4. The release of a naïve wolf that is unrelated to the current BRWRA population would provide some genetic benefits to the population for the long term.
5. M1130 and F1226 have been subject to the Conditioned Taste Aversion regimen to potentially reduce the likelihood that the wolf will attempt to utilize livestock as a food source. M1130 has also been involved in captive prey training regimens in Mexico.

Negative Attributes of Option 3:

1. While the potential for livestock depredation is low in the proposed release area (Figure 3), the released wolves will likely come in contact with livestock. These wolves will need to be actively managed. The IFT will coordinate on the development of mitigation measures with affected permittees dependent on where the pair settles. The IFT will have access to a helicopter if removal actions are required.
2. The single, hard-released animal in New Mexico will likely travel widely, and may disrupt the pack dynamics of the pair that is released.
3. The single, hard-released animal in New Mexico will not contribute to the breeding population during 2015, but may contribute in 2016.

Option 4 – Neither Pair Breeds in Captivity.

Proposed Action

In this case, the IFT would have to decide to translocate m1336 and AF1305 as individual animals or hold one or both pairs for release consideration in 2016.

If the decision was made to translocate the animals as individuals, the IFT would choose to release both animals as hard releases in June to coincide with elk calving. The IFT would have to release the wolves in different areas (likely one in Arizona and one in New Mexico) to prevent the pair from reforming.

Alternatively, one or both of the animals can be held for a potential release(s) in 2016.

Favorable Attributes of Option 4:

1. The individuals have wild experience and are unlikely to have depredation or nuisance problems based on the wolves' past behavior.
2. Planning for 2016 could include areas that are outside of the former BRWRA.

Negative Attributes of Option 4:

1. We would not provide new genetic input in 2015.
2. The individual released wolves are likely to pair with relatives (Figure 1).

Option 5 – Conduct no releases for 2015.

Proposed Action

The IFT would not conduct any releases in 2015. Both adult wolves would be held until 2016 and reevaluated for release at that time.

Favorable Attributes of Option 5:

1. Livestock would not be exposed to more wolves.
2. The additional time would allow for additional release sites to be evaluated prior to the releases, including a full suite of sites in zone 1 (i.e., areas outside of the former Blue Range Wolf Recovery Area)

Negative Attributes of Option 5:

1. Release sites in Zone 1 have not been evaluated or proposed. Thus, these sites may be unsuitable for release in 2016.
2. No actions would take place to increase genetic diversity in the wild population during 2015.
3. M1133 would not be released in 2015. Thus, the IFT would be unable to evaluate the effectiveness of captive conditioning to hunt wild prey coupled with aversive conditioning relative to cattle consumption..
4. The IFT would not perform cross-fostering which was successfully implemented in 2014. Cross-fostering is an important tool to add genetic diversity to the wild population while limiting nuisance behavior by ensuring wolves are raised as wild animals.

Figure 1. Potential Breeding Pairs for 2015. Breeding pairs having one confirmed animal that is a descendent of the Bluestem Pack are illustrated by a light blue circle. Pairs where both the male and female are a descendent of the Bluestem Pack are indicated by a dark blue circle. Circles with hatched blue lines represent a pack where one member of the pair is likely a descendent of the Bluestem Pack based on location and past breeding success, but where genetic results are unknown. Clear circles represent pairs where the genetic analyses are not complete and location does not suggest a Bluestem Pack descendant.

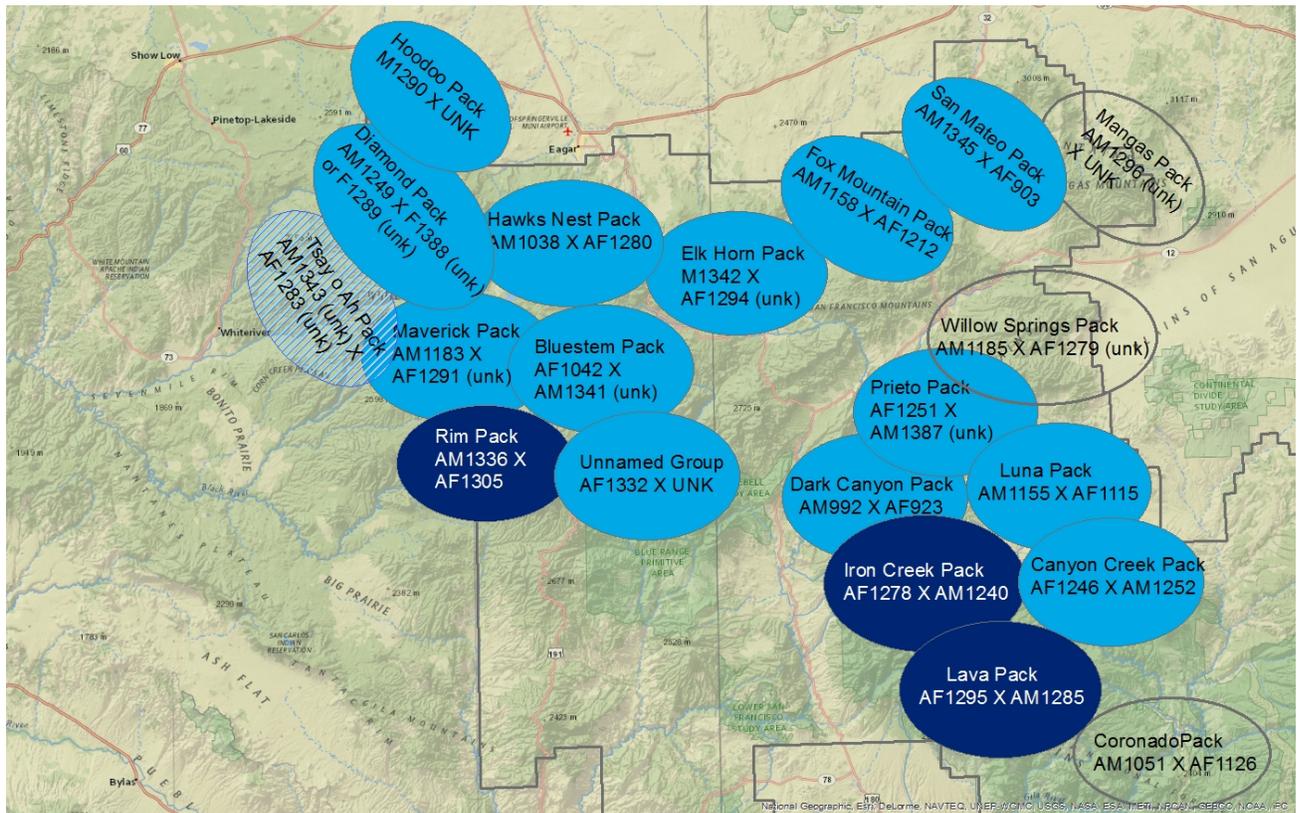


Figure 2. All available release sites in New Mexico relative to the 2013 wolf home ranges. Translocations during 2014 resulted in wolves that will likely occupy Lilly Park, Miller Springs and McKenna Park areas in 2015.

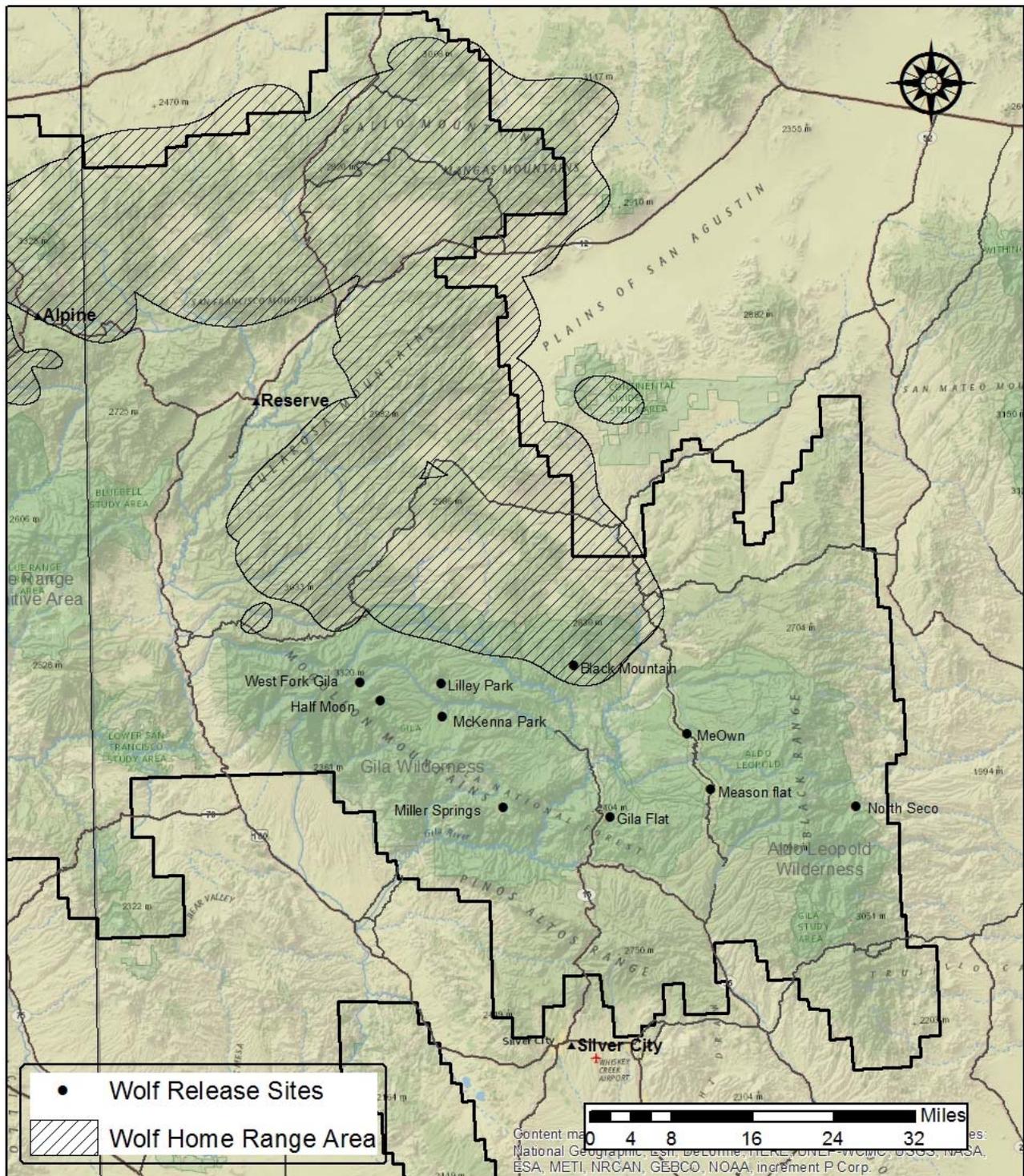


Figure 3. Available release sites in Arizona relative to 2013 wolf home ranges. The IFT would select an appropriate location to either place a mesh pen (Corduroy Creek, Long Cienega, Fish Bench or Bear Wallow) or hard release the Rim Pack (AF1305 and AM1130) within their territory.

