PRELIMINARY
ENVIRONMENTAL ASSESSMENT

05/28/2024

REMOVAL OF WILD HORSES
OUTSIDE THE MONTGOMERY PASS
WILD HORSE TERRITORY

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CHAPTER 1. INTRODUCTION

This Environmental Assessment (EA) has been prepared to disclose and analyze the potential environmental effects of the Proposed Action, which consists of gathering and removing excess wild horses that are located outside the Montgomery Pass Wild Horse Territory (MPWHT), where they are not designated for management (Appendix 1. Maps). The United States Department of Agriculture (USDA), Forest Service (FS), Inyo National Forest (INF) is the lead unit for the management of MPWHT (MOU 1984). The United States Department of the Interior (DOI), Bureau of Land Management (BLM), Bishop Field Office (BIFO) is the lead agency for the National Environmental Policy Act (NEPA) analysis for this proposed action in cooperation with the INF.

The EA addresses potential environmental consequences associated with the proposal to gather and remove wild horses outside of the MPWHT. This EA does not revise the 1988 MPWHT Coordinated Resource Management Plan (CRMP) or associated management actions inside the Territory (e.g. establishment of Appropriate Management Levels (AML)). If undertaken at a future date, any plan revision will be analyzed through a separate NEPA process.

1.1 Background

The MPWHT is the area inhabited by horses on December 15, 1971. The Inyo National Forest is the lead unit for the management of the MPWHT. National Forest Service Lands are administered by the Mono Lake Ranger District, INF, and the Bridgeport Ranger District, Humboldt-Toiyabe National Forest. The BLM Public Lands within the MPWHT are administered by the Bishop and Stillwater Field Offices. There are several parcels of State and private lands within the established Territory.

For clarity, the FS uses the term Wild Horse Territory (WHT), and the BLM uses the term Herd Management Area (HMA) for the legally designated area where wild horses are to be managed within AML. The term “Montgomery Pass Wild Horse Territory” (MPWHT) has historically been used by agencies and the public to describe the entire area that encompasses the FS’s Montgomery Pass WHT and BLM’s Montgomery Pass HMAs. Therefore, when referenced throughout this EA document, the term MPWHT refers to both the FS designated WHT and the BLM designated HMA.

The MPWHT is located approximately 40 miles north of Bishop, California and 20 miles east of Mono Lake (Appendix 1. Maps). The territory runs along either side of the California and Nevada state line at the southern end of the Excelsior Mountain Range and encompassing approximately 207,921 acres.

A population of 50 horses was estimated for the designated Territory when Public Law 92-195, the Wild Free-Roaming Horses and Burros Act (WFRHBA) was passed on December 15, 1971 (USDA 1971). Since the Territory’s establishment, the wild horse population increased in a natural open range environment and in the absence of a population control program. In August 1983 with the Inyo National Forest as the lead agency, 19 horses were captured and removed from the MPWHT following a 1983 Interim Capture Plan Decision Notice and Environmental

Assessment (USDA 1983). In 1984, 35 horses were captured, 33 were removed and 2 were released with collars. In 1988, the CRMP for the MPWHT was approved and addressed principal issues and interaction of foraging animals and resource use within the MPWHT. The intent of the coordinated resource plan was to analyze the capacity of the Territory to serve each resource use and determine a proper balance between various resource values.

Horse Numbers

The MPWHT is managed for a wild horse herd size of 138 to 230 animals and is where wild horses are to be managed for AML (2019 Land Management Plan (LMP) for the Inyo National Forest). The Inyo LMP carried forward the wild horse herd size established in the 1988 MPWHT Coordinated Resource Plan. The MPWHT is not managed for wild burros. Horse numbers have steadily increased over the last decade based on ground observations and aerial counts. In November 2015, BLM and FS personnel conducted simultaneous double-observer aerial surveys of the wild horse populations in the MPWHT and surrounding areas and counted approximately 553 horses with 397 of them being located outside the Territory boundaries (Memorandum 2015). A 2020 simultaneous double-observer aerial survey of MPWHT and surrounding areas counted approximately 654 horses with 498 located outside the Territory boundaries (Memorandum 2020). The most recent 2024 simultaneous double-observer aerial surveys of MPWHT and surrounding areas counted approximately 699 wild horses with 624 located outside the Territory boundaries. However, due to the timing of the survey, the February 2024 survey does not represent the anticipated cohort of 2024 foals (Memorandum 2024) (Appendix 1. Maps).

Horse Distribution

Horse distribution has changed over the last decade, with horses spending increasing amounts of time outside of the MPWHT. In 2012, BLM observed horse herds spending the majority of the year in Adobe Valley, with a large herd of 200 plus horses congregating in Lower Adobe Meadow, and a smaller herd of 40 plus horses congregating at River Springs. Horses were documented in the Sagehen Summit area in 2014. The horses continued to move west and in 2015, wild horses began showing up in high numbers on the shores of Mono Lake. In August 2022, 557 horses were observed along the eastern shore of Mono Lake, the highest count on record for this area. In addition to residing on public lands outside of MPWHT, these herds routinely utilize private, state, and local government lands not within the territory.

Wild horses are crossing highways and other high-use roads outside the MPWHT and creating a hazard for travelers. Observations in the Big Sand Flat corridor consist of larger groups of up to 190 horses, with groups of over 100 animals common near and along SR 120 E. This area has posed the biggest hazard to motorists and horses. Documented vehicle-horse collisions have occurred as recently as the summer of 2023, where the driver had minor injuries and three horses were killed (CHP Collision Reports on file INF). In 2022, a cyclist was seriously injured in a bike-horse collision. Other vehicle-horse collisions have been recorded along US Highway 6.

The change in wild horse population numbers and distribution has resulted in degradation of the natural environment. This includes impacts to geological resources such as Tufa at Mono Lake; trampling of vegetation in riparian areas along the shores of Mono Lake and at other natural

water sources; creation of trails and soil compaction; and loss of vegetation in sagebrush systems that provide habitat for species proposed for listing under the Endangered Species Act.

Project Area
The proposed project area (Appendix 1. Maps) was delineated using the current distribution of wild horses outside the MPWHT and considered the potential for population growth and expansion into new areas. The project area excludes the MPWHT. The project area follows the California and Nevada state line and only includes California. The project area for the INF encompasses only the Mono Lake Ranger District. The project area for BLM includes the majority of the Bodie Hills in the north, public lands east of Mono Lake, and Long Valley in the south along with portions of Hammil Valley south of Benton representing public lands that are not managed for wild horses.

The elevation for the project area ranges from 11,000 to 4,500 feet. The terrain varies from steep rugged mountains to flat wet meadows. Vegetation communities are within the Central Basin and Range ecoregion and are dominated by a mix of sagebrush/bitterbrush and mountain shrub communities with pinyon-juniper and Jeffrey woodlands in the higher elevations.

Excess Determination
Based on all the current available information at this time and as outlined herein, FS and BLM have determined under the WFRHBA that excess wild horses are present outside the MPWHT and that a gather for removal of those excess animals outside the MPWHT is necessary to achieve and maintain a thriving natural ecological balance.

1.2 Purpose and Need

The purpose of the Proposed Action is to gather and remove excess wild horses from outside the MPWHT in accordance with the WFRHBA. The need for the Proposed Action is FS and BLM's responsibility to manage wild horses in accordance with the WFRHBA, address harm to natural resources issues caused by wild horses that reside outside the MPWHT on lands not designated for their management, decrease nuisance animals on private lands, and mitigate public safety concerns along major roadways caused by the presence of wild horses.

1.3 Land Use Plan Conformance

Forest Service

National Forest Management Act of 1976 (NFMA) requires that all FS actions be consistent with a unit's Land Management Plan (LMP) and relevant law, regulation and policy. LMP outlines desired conditions, goals, objectives and standards and guidelines for management.

Key management direction from the 2019 INF LMP related to wild horse and burro management is summarized below. This proposed action is consistent with the 2019 Inyo National Forest LMP.

Chapter 3. Area-Specific Desired Conditions and Management Direction, Wild Horse and Burro Territories: Montgomery Pass Wild Horse Territory is managed for a wild horse herd size of 138 to 230 animals. There are no wild burros in this wild horse joint management area.

Goal 01: Continue working with other agencies and Forest Service units, such as the Bureau of Land Management and the Humboldt-Toiyabe National Forest, and other partners or collaborative groups to manage wild horse herds or in the development of wild horse management plans.

Potential Management Approach: Continue to monitor wild horse populations to determine numbers and use.

Proposed and Possible Actions:

- Update the Montgomery Pass Wild Horse Territory Management Plan
- Monitor the wild horse populations in the Montgomery Pass Wild Horse Herd and White Mountains Herd
- Restore ecosystems of designated wild horse territories and herd boundaries

BLM

This proposed action is subject to the Bishop Resource Management Plan (Bishop RMP), approved March 25, 1993, as amended. The proposed action would occur within the Benton, Bodie Hills, and Granite Mountain Management Areas.

Bishop RMP Policies, Standard Operating Procedures, and Decisions that support implementation of the proposed action include:

General Policies, Page 8,

- No.1: "Management will be on the basis of multiple use and sustained yield" as per Section 102(a)(7) of FLPMA.

- No. 4: "Public lands will be managed in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archaeological values; that, where appropriate, will preserve and protect certain public lands in their natural condition; that will provide food and habitat for fish and wildlife and domestic animals; and that will provide for outdoor recreation and human occupancy and use" as per Section 102(a)(8) of FLPMA.

Decision for Granite Mountain Management Area, Page 40 & 43,

- Manage habitat for the Montgomery Pass wild horse herd in accordance with the Montgomery Pass Wild Horse Territory Coordinated Resource Management Plan.

The action has been reviewed and found to be consistent with the Bishop RMP, as amended, even though it is not specifically provided for, because it is clearly following RMP policy and direction. Removal of wild horses that are located outside the MPWHT would be consistent with the Bishop RMP by providing resource protection relative to other public lands. Furthermore,

BLM determined the Proposed Action is in accordance with the Bishop RMP and the CRMP because these horses are outside the boundaries of the MPWHT and the direction in the Plans was to manage horses only inside the boundaries.

1.4 Consistency with Other Law, Regulations, and Policy

Wild Free-Roaming Horses and Burros Act of 1971

The Proposed Action is consistent with the WFRHBA, which mandates the agencies "*prevent the range from deterioration associated with overpopulation"*, and *"remove excess horses in order to preserve and maintain a thriving natural ecological balance (TNEB) and multiple use relationships in that area".*

National Environmental Policy Act (NEPA)

References to the Council on Environmental Quality NEPA regulations throughout this EA are to the regulations in effect as of May 20, 2022.

BLM Wild Horse Laws, Regulations, and Policies

The Federal Land Policy and Management Act of 1976 (FLPMA) requires that an action under consideration be in conformance with the applicable BLM land use plan(s), and be consistent with other federal, state, and local laws and policies to the maximum extent possible. The Proposed Action is consistent with all applicable regulations at Title 43 Code of Federal Regulations (43 CFR) Part 4700 and all relevant policies, including those listed below.

43 CFR 4700.0-6 (a): Wild horses shall be managed as self-sustaining populations of healthy animals in balance with other uses and the productive capacity of their habitat.

43 CFR 4710.4: Management of wild horses and burros shall be undertaken with the objective of limiting the animals' distribution to herd areas. Management shall be at the minimum level necessary to attain objectives identified in land use plans and herd management area plans.

43 CFR 4720.1: Upon examination of current information and a determination by the authorized officer that an excess of wild horses or burros exists, the authorized officer shall remove the excess animals immediately….

43 CFR 4720.2-1: Upon written request from the private landowner to any representative of the Bureau of Land Management, the authorized officer shall remove stray wild horses and burros from private lands as soon as practicable.

43 CFR 4740.1 (a): Motor vehicles and aircraft may be used by the authorized officer in all phases of the administration of the Act, except that no motor vehicle or aircraft, other than helicopters, shall be used for the purpose of herding or chasing wild horses or burros for capture or destruction. All such use shall be conducted in a humane manner. (b) Before using helicopters or motor vehicles in the management of wild horses or burros, the authorized officer shall conduct a public hearing in the area where such use is to be made.

The BLM Wild Free-Roaming Horses and Burros Manual (4700) includes the objective to manage wild horses and burros, within herd management areas (HMAs) designated for their long-term maintenance, in a manner designed to achieve and maintain TNEB and multiple use relationships on the public lands.

BLM's Wild Horses and Burros Management Handbook (H-4700-1) directs the BLM to consider whether excess wild animals are present and require immediate removal. In making this determination, the BLM shall analyze a number of factors, including whether there are wild horses and burros located outside the HMA in areas not designated for their long-term maintenance. The term "excess animals" is defined as those animals which must be removed from an area in order to preserve and maintain TNEB and multiple-use relationship in that area (16 USC § 1332(f)(2)).

The Interior Board of Land Appeals in *Animal Protection Institute et al.* (118 IBLA 63, 75 (1991)) found that under the WFRHBA, BLM is not required to wait until the range has sustained resource damage to reduce the size of the herd, instead proper range management dictates removal of excess animals before range conditions deteriorate in order to preserve and maintain a TNEB and multiple-use relationship in that area.

FS Wild Horse Policies

The proposed action is consistent with the overarching management direction of wild free-roaming horses and burros outlined in the Code of Federal Regulations 36 CFR 222 Subpart D and Forest Service Manual 2220 Chapter 2260 – Wild Free Roaming Horses & Burros.

Federal regulations (36 CFR 222 Subpart D) state the Forest Service shall, "*Administer wild free-roaming horses and burros and their progeny on the National Forest System in the areas where they now occur (wild horse and burro territory) to maintain a thriving ecological balance considering them an integral component of the multiple use resources, and regulating their population and accompanying need for forage and habitat in correlation with uses recognized under the Multiple-Use Sustained Yield Act of 1960*" (70 Stat. 215; 16 U.S.C. 528–531)

36 CFR 222.64 The Chief, Forest Service, is authorized to use helicopters, fixed-wing aircraft, and motor vehicles in a manner that will ensure humane treatment of wild free-roaming horses and burros as provided by 36 CFR 222.64(a-d).

36 CFR 222.66 Owners of land upon which wild free-roaming horses and burros have strayed from the National Forest System may request their removal by calling the nearest office of either the Forest Service or Federal Marshall.

FSM 2260.3 Confine wild free roaming horses and burros to managed Horse and Burro Territories as established in 1971, to the extent possible.

FSM 2260.3 Remove excess animals from the range at the earliest opportunity.

FSM 2260.03 Relocate wild-free roaming horses and burros only to territories identified in 1971 and only where a receiving territory has sufficient suitable habitat to sustain planned population levels.

1.5 Decisions to be Made

This EA analyzes the impacts of the Proposed Action and alternatives that may be undertaken to jointly address the need to remove excess horses that have moved outside the MPWHT onto private, state, local or federal lands not designated for wild horse management and instead managed for other sensitive resource values. If the agencies determine that their actions will have no significant effects, then they will each prepare a Finding of No Significant Impact and determine whether to implement all, part, or none of the Proposed Action as described in Chapter 2. Because two agencies are involved, the FS and BLM will each issue a separate decision authorizing the action on their respective lands.

FS and BLM have varying National Policy and Standard Operating Procedures (SOPs) for removal methods. The Inyo National Forest is the lead agency, however, depending on which agency serves as the lead for a gather, that agency's protocols will be applied.

This EA does not evaluate a revision of the 1988 MPWHT CRMP. Furthermore, the EA would not set or adjust AML, nor would it adjust livestock use, as these were set through other land use and/or grazing decisions.

1.6 Consultation, Scoping, and Public Involvement

Internal
In August 2023, the FS and BLM interdisciplinary teams formally met to initiate a planning effort to address issues related to wild horses located outside the MPWHT. Subsequent meetings followed to refine the scope of the project area, establish the Purpose and Need, and to develop proposed actions.

Tribal Consultation
On October 4, 2023, FS and BLM sent letters to the chairperson and staff of nine potentially impacted tribes and tribal communities inviting and initiating government-to-government consultation: Antelope Valley Indian Community, Big Pine Paiute Tribe of Owens Valley, Bishop Paiute Tribe, Bridgeport Indian Colony, Fort Independence community of Paiute Indians, Mono Lake Kutzadika'a Tribe, North Fork Mono Tribe, Tubatulabals of Kern Valley and Utu Utu Gwaitu Paiute Tribe. Individual follow-up phone calls and meetings were conducted as requested by Tribes. Through this consultation, the tribes and tribal communities did not identify any traditional religious or cultural sites of importance.

Public Scoping
On November 7, 2023, the BLM initiated a 30-day external scoping period via the ePlanning website at: https://eplanning.blm.gov/eplanning-ui/project/2026934/510. The BLM issued a news release and also sent a scoping letter to 100+ different individuals, organizations, and agencies. The BLM received a total of 381 scoping responses, including 176 form letters. A

summary of the comments can be found in the Montgomery Pass Wild Horse Territory Scoping Summary Report (Appendix 2. Scoping Summary Report).

Fish and Wildlife Service
Coordination calls have occurred regarding the proposed listing of the Bi-State sage grouse and the Proposed Action. Section 7 Consultation may occur and follow appropriate agency policy if the listing status changes.

CHAPTER 2. DESCRIPTION OF ALTERNATIVES

2.1 NO ACTION ALTERNATIVE

Under the No Action Alternative, the agencies would not conduct gather operations to remove excess wild horses that are located outside the MPWHT. Wild horses would continue to reside outside of the MPWHT in areas not designated for the management of wild horses and that are being managed for natural resource values that are being adversely impacted by their presence. There would be continued and increased risk to highway/roadway users. The No Action alternative does not comply with FS and BLM law, regulation, and policy regarding wild horse management (outlined in Chapter 1). It is included as a baseline for comparison with the Proposed Action as required under NEPA.

2.2 PROPOSED ACTION

The Proposed Action was developed, consistent with applicable statutes, regulation, and policy regarding wild horse management. The proposed action is to immediately remove excess wild horses that are outside of the MPWHT, in accordance with the WFRHBA, which directs the Secretaries to immediately remove excess animals from the range upon determination that excess animals are present. 16 U.S.C. § 1333(b)(2); 43 C.F.R. § 4720.1. The Proposed Action also includes removal of nuisance animals from private lands and where there are safety concerns caused by the nuisance animals near roadways. 16 U.S.C. § 1334; 43 C.F.R. § 4720.2. Because various factors (e.g., lower gather efficiencies, weather and topography, hard-to-catch or trap-shy animals) could affect the ability to remove all excess wild horses outside the MPWHT in a single gather, a follow-up gather(s) may be used to remove remaining excess animals outside the boundary if necessary.

2.2.1 Locations

Priority areas for removal would include but not be limited to: horses located in the Mono Basin (i.e. horses located in wetlands along Mono Lake or near special status/T&E species habitat); horses along CA State 120 and U.S. Highway 6 (i.e. areas of vehicle-horse collisions in Mono County); and requests from private landowners. The established AML for the MPWHT in conjunction with current census data would be considered when determining whether to remove excess horses or relocate some back into the Territory. Horses could be relocated back into the Territory to meet the low end of the AML range.

Gathering wild horses would occur as necessary, until the excess of horses is resolved, the safety hazard is reduced, and the private property impacts are eliminated. Removal operations could

occur at different times of the year to resolve any identified wild horse health, safety, or private property concerns and will follow design features and all relevant agency policies. Design features (Chapter 2) are included in the project to protect sensitive resources during implementation; their site-specific application is a required component of the Proposed Action.

All potential trap and holding sites or holding facilities have been identified and are located to the greatest extent feasible, in areas that had have been previously disturbed. If any additional trap or holding site locations are identified, these would also be located, to the greatest extent feasible, in previously disturbed areas. These types of disturbed locations include mineral material pit, existing corral, water tank and trough, sheep bedding ground, campsite, OHV staging area, or roadway.

No new roads would be constructed. Existing roads may be graded and/or road base fill used to improve access to sites and if necessary, water would be used on the roads to reduce dust during implementation. Grading would not occur outside the existing road prism.

There may be a need to temporarily close roads and dispersed camping areas for short periods during gather operations to provide for animal, public, employee and contractor safety. Any such temporary closures would be signed on the ground one week prior to the gather operation to notify the public. One day prior to the gather operation, the area will be patrolled for public land users and enforced as necessary for the duration.

2.2.2 Methods for Removal

The primary gather techniques would be helicopter-drive trapping and/or water/bait trapping, although roping from horseback could also be used when necessary. The FS/BLM would determine which method to use on a case-by-case basis following field inspections by agency wild horse managers to identify the accessibility of the animals, local terrain, and vegetative cover, and efficiency. All of these methods have been determined by FS/BLM to be humane.

Multiple temporary trap sites (gather sites), including helicopter drive and water/bait trapping sites, as well as temporary holding sites, would be used to accomplish the goals of the Proposed Action. When determining gather locations, gather approach techniques would be chosen based on efficiency. Any trapping activities would be scheduled in locations and during time periods that would be most effective to gather enough animals to achieve management goals for the areas being gathered. All gather methods must follow the most current agency approved methods that adhere to policy and all capture and handling activities would be conducted in accordance with the SOPs.

All potential trap sites or holding facilities would be assessed for cultural, botanical, and wildlife resources prior to initiation of gathers. If any special status resources are encountered, these locations would not be used unless the activities may be carried out in a manner that avoids adverse impacts to the identified resource(s) of concern, as described in the design features. In addition to public lands, other property may be utilized for gather sites and temporary holding facilities (with the landowner's or managing agency's written permission/authorization).

An Agency monitor(s) will oversee the project and be present during contractor project setup. The monitor(s) will have full authority to cease the operations due to unforeseen circumstances which arise or due to violation of authorization stipulations.

While the agencies plan to immediately remove all excess animals outside the boundaries of the MPWHT, experience reveals that it is unlikely that a single gather can achieve this because of gather efficiency limitations (e.g., animals evading capture during the gather operations), logistical limitations (e.g. weather conditions, terrain and large geographic area to be gathered), space capacity limitations (for safely holding and caring for removed animals) that limit the number of gathers that can be conducted annually at the national level. As a result, it often requires more than a single gather operation to remove all excess wild horses, if only to capture animals that would have been removed if they had not evaded capture during the gather, or because a gather was ended early due to inclement weather conditions. Prior to conducting follow-up gathers needed to remove all excess wild horses outside the MPWHT in the first instance, FS/BLM will review the most current population estimates, monitoring data, and whether there are any new circumstances or information that would substantially change the prior analysis to determine whether further environmental analysis or a new decision is necessary. Any such subsequent gathers shall be conducted as promptly as appropriate to allow sufficient time for the animals to settle after a helicopter gather and to provide for a safe, efficient and effective follow-up gather operation.

Gathers would be scheduled according to current protocol and would follow SOPs and applicable design features. Several factors such as animal condition, herd health, weather conditions, or other considerations could result in adjustments in the schedule. As outlined above, the duration, frequency, and magnitude of the gathers would depend on the number of animals approved for removal following coordination with the FS and/or BLM National WHB Program. Aerial census surveys would be conducted, as needed. Distribution flights and/or ground-based saturation surveys may occur prior to gathering to determine herd locations but are dependent on agency priorities and funding.

Gather operations would be conducted in accordance with the respective agency animal welfare management direction (BLM's Comprehensive Animal Welfare Program (CAWP)) for Wild Horse and Burro Gathers, which includes provisions of the Comprehensive Animal Welfare Program (BLM Permanent Instruction Memorandum 2021-002); FS--CAWP & SOP for INF Wild Horse Gathers (Appendix 3).

All operations will follow agency standard fire prevention terms based on the project activity level and changes to gather operations may occur at the discretion of the agency's Authorized Officer based on fire and fuels conditions.

2.2.3 Helicopter Drive Trapping

Determination of the use of this method would be performed by agency wild horse managers. That determination would be based on the location, accessibility of the animals, local terrain, vegetative cover, and available sources of water and forage. Roping from horseback could also be used when necessary to assist the pilot. See Standard Operation Procedures, Appendix 3 or 4.

The FS/BLM would utilize a contractor to perform the gather activities. The contractor would be required to conduct all helicopter operations in a safe manner and in compliance with Federal Aviation Administration regulations found in 14 CFR § 91.119. Per BLM Washington Office IM No. 2013-059 and BLM Washington Office IM No. 2010-164, helicopter landings would not be allowed in wilderness except in the case of an emergency.

Helicopter drive trapping involves use of a helicopter to herd wild horses into a temporary trap. Traps would utilize terrain features and census data to increase probability of capturing nearby horses. Traps consist of a large catch pen with several connected holding corrals, jute-covered wings, and a loading chute. The jute covered wings are made of fibrous material, not wire, to avoid injury to the horses. The wings form an alley way used to guide the horses into the trap. Trap locations utilize natural topography to increase the probability of horse access with less animal stress. Locations are changed during the gather to reduce the distance that the animals must travel. A helicopter is used to locate and herd wild horses to the trap location. The pilot uses a pressure and release system while guiding them to the trap site, allowing them to travel at their own pace. As the wild horse herd approaches the trap the pilot applies pressure and a "prada" horse is released, guiding the wild horses into the trap. Once horses are gathered, they are removed from the trap and transported to a temporary holding facility where they are sorted.

Helicopter drive-trapping and helicopter-assisted roping would not be conducted between the dates of March 1 and June 30 which is the natural peak foaling period. The BLM Wild Horse and Burro Handbook, H-4700-1, Section 4.4.4 prohibits the capture of wild horses by helicopter during peak foaling periods except in case of emergency.

SOPs (Appendix 3 or 4) would be implemented to ensure that the gather is conducted in a safe and humane manner, and to minimize potential impacts or injury to the wild horses. If temperatures exceed what is healthy and safe for the animals, the FS/BLM will pause gathering operations. In addition, veterinarians are on-site to assess and monitor animal conditions and consult with FS/BLM regarding the health and well-being of the wild horses.

2.2.4 Bait/Water Trapping

Bait/water trapping involves setting up portable panels around an existing water source or in an active wild horse area, or around a pre-set water or bait source. The portable panels would be set up to allow wild horses to go freely in and out of the corral until they have adjusted to it. When the wild horses fully adapt to the corral, it is fitted with a gate system. Period of adaptation for the animals creates a low stress trapping method. See Standard Operation Procedures (SOPs), Appendix 3 or 4.

The use of bait and water trapping, though effective in specific areas and circumstances, would not be timely, cost-effective, or practical as the primary or sole gather method for the excess animals outside the MPWHT. However, water or bait trapping could be used as a supplementary approach to achieve the desired goals of the Proposed Action throughout portions of the gather area where it can be used gather wild horses efficiently and effectively, such as in areas where there are limited resources (food or water) and where animals are known to concentrate. Bait and/or water trapping generally requires a longer window of time for success than helicopter drive trapping. Although the trap would be set in a high probability area for capturing excess

wild horses residing within the area and at the most effective time periods, a longer time period is required for the horses to acclimate to the trap and/or decide to access the water/bait.

Gathering excess horses using bait/water trapping could occur at any time of the year and traps would remain in place until the target numbers of animals are removed. As the proposed bait and/or water trapping is a lower stress approach to gathering wild horses, such trapping can continue into the foaling season with reduced risk of harming the animals.

2.2.5 Gather-Related Temporary Holding Facilities

Wild horses that are gathered would be transported from the gather sites to a temporary holding corral. Temporary holding sites could be in place for up to 45 days depending on length of gather. At the temporary holding corral, wild horses would be sorted into different pens. The horses would be provided hay and water. Females and their unweaned foals would be kept in pens together.

An Animal and Plant Health Inspection Service (APHIS) veterinarian would be on-site, as needed, to examine animals and make recommendations to the FS/BLM for care and treatment of wild horses in accordance with agency SOPs. If an APHIS veterinarian is not available, the FS/BLM would coordinate with a private practice veterinarian for on-call or referral services as needed. At the temporary holding facility, a veterinarian would provide recommendations to the FS/BLM regarding care and treatment of recently captured wild horses.

Any animals affected by a chronic or incurable disease, injury, lameness, or serious physical defect (such as severe tooth loss or wear, club foot, and other severe congenital abnormalities) would be humanely euthanized using methods acceptable to the American Veterinary Medical Association (AVMA). Decisions to humanely euthanize animals in field situations would be made in conformance with BLM policy (PIM 2021-007) or Inyo National Forest Euthanasia Protocols (USDA 2024). Conditions requiring humane euthanasia occur infrequently and are described in more detail in PIM 2021-007 and the Inyo National Forest Euthanasia Policy. FS/BLM staff would always be present on the gather to observe animal condition, ensure humane treatment of wild horses, and ensure contract requirements are met.

2.2.6 Transport, Off-range Corrals, and Adoption Preparation

All gathered wild horses would be removed and transported to FS or BLM off range corrals (ORCs) where they would be inspected by facility staff (and if needed by a contract veterinarian) to observe health conditions and ensure that the animals are being humanely treated. FS/BLM will make the determination about which ORC will receive the gathered wild horses based on capacity limitations, funding, and travel distance. ORCs may be operated by BLM or FS or may be operated by a contractor.

Those wild horses removed from the range would be transported to the receiving off-range corrals in a gooseneck stock trailer or straight-deck semi-tractor trailers on existing roads. Trucks and trailers used to haul wild horses would be inspected prior to use to ensure wild horses can be safely transported. Prior to loading wild horses, when possible, they would be segregated by age and sex and loaded into separate compartments. Females and their unweaned foals may be shipped together in separate compartments. Conditions for transportation of recently captured

wild horses are subject to standards of the FS or BLM comprehensive animal welfare program (Appendix 3 or BLM IM 2021-002).

Upon arrival, recently captured wild horses are offloaded by compartment and placed in holding pens where they are provided quality hay and water. At the ORC, a veterinarian examines and provides recommendations to the FS or BLM regarding care, treatment, and if necessary, euthanasia of the recently captured wild horses. Any animals affected by a chronic or incurable disease, injury, lameness, or serious physical defect (such as severe tooth loss or wear, club foot, and other severe congenital abnormalities) would be humanely euthanized using methods acceptable to the AVMA. Wild horses in very thin condition, or animals with injuries, are sorted and placed in hospital pens, fed separately, and/or treated for their injuries.

After recently captured wild horses have transitioned to their new environment, they are prepared for adoption, sale, transfer to an authorized government agency, or transport to ORC. Preparation involves freeze marking/micro chipping the animals with a unique identification number, vaccination against common diseases, castration, microchipping, and deworming. At ORC facilities, a minimum of 700 square feet of space is provided per animal.

2.2.7 Adoption

BLM adoptions are conducted in accordance with 43 CFR Subpart 4750. FS adoptions are conducted in accordance with 36 CFR 222.69 and FSM 2200 Chapter 2260.

2.2.8 Sale with Limitations

Sales of wild horses are conducted in accordance with the 1971 WFRHBA and congressional limitations. Currently, Sale with Limitations Buyers must fill out an application and be pre-approved before they may buy a wild horse. A sale-eligible wild horse is any animal that is more than 10 years old or has been offered unsuccessfully for adoption at least three times. The application also specifies that buyers cannot sell the horse to anyone who would sell the animals to a commercial processing plant.

2.2.9 Off-Range Pastures

In Off-Range Pastures (ORP), females and sterilized males (geldings) are segregated into separate pastures. Although the animals are placed in ORP, they remain available for adoption or sale to qualified individuals. Foals born to pregnant females in ORP are gathered and weaned when they reach about 8-12 months of age and are also made available for adoption. The ORP contracts specify the care that wild horses must receive to ensure they remain healthy and well-cared for. Handling by humans is minimized to the extent possible although regular on-the-ground observation by the ORP contractor and periodic counts of the wild horses to ascertain their well-being and safety are conducted by BLM personnel and/or veterinarians.

2.2.10 Shipping

When shipping wild horses for adoption, sale, or ORP the animals may be transported for up to a maximum of 24 hours. Immediately prior to transportation, and after every 24 hours of transportation, animals are offloaded and provided a minimum of eight hours on-the-ground rest. During the rest period, each animal is provided access to unlimited amounts of clean water and

two pounds of good quality hay per 100 pounds of body weight with adequate space to allow all animals to eat at one time.

2.2.11 Euthanasia or Sale without Limitations

Under the WFRHBA, healthy excess wild horses can be euthanized or sold without limitation if there is no adoption demand for the animals. However, while euthanasia and sale without limitation are allowed under the statute, for several decades Congress has prohibited the use of appropriated funds for this purpose. If Congress were to lift the current appropriations restrictions, then it is possible that excess horses removed from outside the MPWHT could potentially be euthanized or sold without limitation consistent with the provisions of the WFRHBA.

Any old, sick, or lame horses unable to maintain an acceptable body condition (greater than or equal to a Henneke body condition score (BCS) of 3) or with serious physical defects would be humanely euthanized either before gather activities begin or during the gather operations as well as within ORCs. Decisions to humanely euthanize animals in field situations would be made in conformance with BLM policy (Permanent Instruction Memorandum 2021-007 or the most current edition) or FS policy (Inyo National Forest Euthanasia Policy)

2.2.12 Public Viewing Opportunities

Advance planning for observation of gather operations can minimize the potential for unanticipated situations to occur and ensure the safety of the animals, staff, and contract personnel, as well as the public/media. Opportunities for public observation of the gather activities on public lands would be provided, when and where feasible and compatible with safety and ensuring an effective gather operation, and would be consistent with the FS wild horse gather observation protocols in Appendix 5 and/or BLM IM No. 2013-058 and BLM IM 2013-060 (USDI BLM 2013). Agency protocols are intended to establish observation locations that reduce safety risks to the public during helicopter gathers (e.g., from helicopter-related debris or from the rare helicopter crash landing, or from the potential path of gathered wild horses), to the wild horses (e.g., by ensuring observers would not be in the line of vision of wild horses being moved to the gather site), and to contractors and FS or BLM employees who must remain focused on the gather operations and the health and well-being of the wild horses.

No public observation is permitted during water/bait trapping operations as this could interfere with the trapping operations and impact the contractor's ability to capture wild horses. Only essential gather operation personnel would be allowed at the trap site during operations.

2.3 Design Features of the Proposed Action

Design features are included in the project to protect sensitive resources during implementation; their site-specific application is a required component of the Proposed Action.

2.3.1 Vegetation

i. Trap sites or temporary holding facilities that occur in suitable habitat for special status species (SSP) or special habitats (e.g. pumice flats) would be surveyed to determine species/special habitat presence. Trap sites or temporary holding facilities will not be

located in SSP occurrences or special habitats, unless adverse impacts to plants / special habitat can be avoided.

ii. Trap sites or temporary holding facilities will not be located within wetland or riparian areas.

iii. All equipment used for gathering operations shall be cleaned and inspected for invasive plants prior to arrival.

iv. Gather sites would be screened for invasive plants prior to being used. Gather operations will not be staged in species that are FS priority invasive plant infestations.

v. All sites with temporary facilities will be inspected for species that are FS priority invasive plants for three years after gather activities. Agencies will follow established protocols for treatment.

vi. All feed at trap sites or holding facilities, would be certified as weed free.

vii. Limit vegetation removal and other surface disturbing activities to the minimum required for project implementation.

viii. Equipment use beyond roads or existing disturbed areas will be limited to the minimum amount necessary to complete the project.

ix. If vehicles crush vegetation when maneuvering or backing during operations, vegetation restoration and/or soil stabilization of disturbed sites will be performed as determined necessary.

2.3.2 Wildlife

i. If work occurs during the bird breeding season (May 1st-July 30th), a nesting bird survey will be conducted within 100 ft of the planned gather sites approximately one week prior to scheduled activities. If nesting birds are discovered, mitigations such as sound barriers or buffers may be established as needed around nests to minimize impact from the Proposed Action. Limited operating period may be adjusted if the FS/BLM determines that breeding chronology does not coincide with these dates.

ii. Yearlong protection (no discretionary actions which would adversely affect target resources would be allowed) will occur within 1/3 mile of sage-grouse leks.

iii. Facilities or gather locations will not occur within 2 miles of an active sage-grouse lek during the breeding season (March 1st-June 30th).

iv. If facilities or gather locations are adjacent or in suitable pygmy rabbit habitat, a burrow survey will be conducted within 300ft of the project location prior to the installation of the facility. If a pygmy rabbit burrow is discovered and considered active, no project activities will occur within a 150ft buffer.

2.3.3 Livestock Operators

i. Two weeks prior to gather operations, agencies will notify operators of any actions within their allotment(s)

2.3.4 Archaeological Resources

i. All proposed temporary gather and hold sites, and road grading have been inventoried for archaeological resources (historic or precolonial sites or objects). All archaeological resources will be protected by avoidance. Any archaeological resource discovered during project implementation shall be immediately reported to the Authorized Officer. FS/BLM and/or the contractor shall suspend all operations in the immediate area of such discovery

until authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by a qualified archaeologist to determine appropriate actions to avoid the resource.

2.4 ALTERNATIVES CONSIDERED BUT ELIMINATED FROM DETAILED ANALYSIS

Two alternatives were considered but eliminated from detailed analysis as they were determined not to be reasonable alternatives. The rationale for not carrying them forward is in detail below.

2.4.1 Exclusive Use of Bait and/or Water Trapping

The use of bait and water trapping alone, though effective in specific areas and circumstances, would not be timely, cost-effective, or technically feasible as the only gather method for the following reasons: (1) the area in which wild horses currently occur is too large to effectively use this gather method alone; (2) road access for vehicles to potential trapping locations necessary to get equipment in/out as well as to safely transport gathered wild horses is limited; (3) the presence of scattered water sources on private, state, and public lands would make it almost impossible to restrict wild horse access to the extent necessary to effectively gather and remove the excess animals through bait and/or water trapping alone and achieve management goals; (4) the current number of horses is too large to trap with this method alone. Discussions with federally approved contractors and local FS/BLM staff suggest that the FS/BLM cannot feasibly establish enough bait/water traps simultaneously to gather the necessary number of horses due to limited availability of enough logistical resources (panels, trucks, trailers, personal etc.) and the quantity of available resources is not likely to increase. For those reasons, exclusive use of bait and water trapping was eliminated from further consideration. However, as discussed in this EA, water or bait trapping may be used as a component of the Proposed Action to help achieve the desired goals if conditions are suitable for trapping horses not captured during the helicopter gather or where a helicopter gather cannot be scheduled and trapping can be successful.

2.4.2 Exclusive use of wranglers on horseback drive-trapping.

Use of wranglers on horseback drive-trapping to remove excess wild horses can be somewhat effective on a small scale. However, due to the number of horses to be gathered, the large geographic size of the project area, and lack of approachability of the animals, this technique alone would be ineffective and impractical as a substitute for helicopter trapping. Wild horses often outrun and outlast domestic horses carrying riders. Horseback drive-trapping is also very labor intensive and can be very hazardous to the domestic horses and wranglers. Helicopter assisted roping is typically only used to capture an individual horse if necessary (such as when a foal that has become separated from its mare) and when the animal is in close proximity to the trap site. For these reasons, using this method exclusively was eliminated from further consideration.

CHAPTER 3. AFFECTED ENVIRONMENT AND ENVIRONMENTAL EFFECTS

This section describes the existing environment of the area that would be affected by the No Action and Proposed Alternatives and discloses potential impacts of these alternatives. There are no Farmlands (as defined by 7 CFR 657.5), Floodplains *(Executive Order 11988)* or Hazardous Waste *(Resource Conservation and Recovery Act of 1976, and Comprehensive Environmental Response, Compensation, and Liability Act of 1980)* areas in the project area so there will be no effect on these resources and no analysis. Some resources were considered but eliminated from detailed analysis. The rationale for not analyzing these resources in detail are summarized in Section 3.14, Table 3-5 below.

3.1 WILD HORSES

Affected Environment

This section describes MPWHT herd population size over time, distribution, and wild horse diet. Some groups of wild horses on the fringe of the boundary of the Territory migrate in and out seasonally, while other groups reside year-round outside the Territory.

Prior to establishment of MPWHT

The 1979 MPWHT EA provides this background…. "Prior to the Wild Horse Act of 1971, horse numbers were kept in check by 'mustangers'. Acie Cline was probably the most successful of the many individuals who harvested horses in the 1930's and 40's. It is told that he incorporated the use of gentle mares to facilitate the roundups in Adobe Valley. The wild horses would be hazed for days on end and then ultimately would be captured using the old stone corrals at River Springs and Adobe Valley Ranch."

Population of MPWHT

Estimates of the wild horse population have occurred in the Territory since the early 1970's. In 1971, an estimated 50 horses occupied the MPWHT (USDA 1971). Since the Territory's establishment, the wild horse population has increased in a natural open range environment. In 1988 the MPWHT Coordinated Resource Plan was completed, which allows for management of a wild horse herd size of 184 horses with a fluctuation of 25% above or below (138 to 230 animals). The 1988 census estimated 184 horses associated with the MPWHT. The 1988 MPWHT AML was adopted in the 2019 INF LMP (USDA 2019). Over the years, a variety of methodologies have been utilized to estimate the MPWHT population size. Due to the inconsistency of data collection methods, caution is warranted when comparing population numbers across data collection methods.

Wild horse population estimates for the MPWHT during the period of 1987-2011 were published in the paper, "Environmental Influences on the Movements and Distribution of a Wild Horse (Equus caballus) Population in Western Nevada, USA: a 25 Year Study" (Turner 2015). This study included estimates of total population of wild horses in the MPWHT and the population residing in the Adobe Valley area in and adjacent to the MPWHT for the duration of the study. The total horse population varied considerably across the study, ranging from a low of 138 in 1995 to a maximum of 312 in 2011. Horse population estimates were generated from a collection

of repeated aerial and ground observations. Observations were supplemented by periodic video and photographic records.

In November 2015, FS and BLM personnel began conducting simultaneous double-observer aerial surveys of the wild horse and burro populations in areas of importance to populations of the Bi-State sage grouse, including areas inside and outside the MPWHT (Memorandum 2015). In October 2020, FS and BLM personnel conducted simultaneous double-observer aerial surveys from a helicopter of the wild horse abundance in the MPWHT (Memorandum 2020). In February 2024, FS and BLM personnel conducted simultaneous double-observer aerial surveys from a helicopter of the wild horse abundance in the Montgomery Pass MPWHT (Memorandum 2024). The estimated ratio of foals to adults reflects what was observed during the February survey and does not represent the full cohort of foals for 2024 because most foals are not born at that time.

Table 3-1 Aerial Surveys: Total estimated number of horses inside and outside the MPWHT

Age Class	Estimated Number of Horses in 2015[1]	Estimated Number of Horses in 2020[2]	Estimated Number of Horses in 2024 (does not include full cohort of foals)[3]
Foals	54	70	5
Adults	499	584	694
Total	553	654	699
Horses Outside of MPWHT	397 of 553 Total	498 of 654 total	624 of 699 Total

[1] Source: Memorandum 2015. [2] Source: Memorandum 2020. [3] Source: Memorandum 2024

Horses Distribution

Horse emigration from the MPWHT to areas outside the territory is well documented. As outlined above, census flights confirm horses are residing outside of the MPWHT. FS and BLM observed horses consistently utilizing areas, some 15-20 miles, outside of the MPWHT year-round.

Historically, the MPWHT horses followed an annual season-driven migration, inside the territory, from high elevation summer range to lower elevation winter range. Some horses used the summer range year-round, wintering at its lowest elevations, which were generally near the snow line. Turner (2015) noted that "distinct summer and winter range use was characteristic for more than 60% of the population during the first 7 years of the study, with subsequent but marked reduction in use of summer range. While approximately 20% of the population continued to annually use the historical summer range, the majority divided into two geographically and functionally separate subpopulations that resided year-round in the historical winter range and adjacent areas on opposite sides of the MPWHT." Additionally, "More than 90% of the horses that ceased using the summer range across the study wintered inside the MPWHT. However, between May and late September from 1995 to 2011, these horses distributed themselves across range areas both inside and outside the MPWHT" (Turner 2015).

Researchers documented that mountain lion predation of horses, at higher elevations, may have helped maintain a stable horse population (Turner and Morrison, 2001). Pressure from mountain

lions may have contributed to horses changing distribution toward lower elevations (Personal communication with Turner 2024).

In addition to decreased summer range use and increased year-round use of historical winter-range areas, expansion of the geographic use areas occurred, including seasonal use beyond MPWHT boundaries (Turner 2015). “It is noteworthy that the horses using the Adobe Valley were a mixture of horses living year-round and horses seasonally using both the Valley habitat and lion-occupied habitat. As year-round use of the Adobe Valley increased after 2005 and fewer seasonal-use horses were present, foal survival rates were greater (Turner 2015).” In future years, monitoring of population growth became focused in Adobe Valley on the west side of the MPWHT, and outside the territory.

In Adobe Valley, which was historically a winter range area that is both in and adjacent to the MPWHT horse numbers increased from 43 in 2005 to 180 in 2011 (Turner 2015). “This increase began after cessation of cattle presence in the Adobe Lake grazing allotment that consisted mainly of irrigated private land. Abundant in water and feed, this site became accessible to horses via open gates and unmaintained fences and was devoid of lions. Many horses using this site became residents in this area year-round during this period (Turner 2015).”

In 2012, BLM observed horse herds were spending all year in the Adobe Valley area, which is both in and adjacent to the MPWHT, with the large herd of 200 plus horses congregating in Adobe Meadow, and a smaller herd of 40 plus horses congregating at River Springs. In addition to large numbers spending time year-round in Adobe Valley, horses were documented greater than 8 miles from the MPWHT boundary to the west and crossing Highway 120.

Photo: Wild horses outside the MPWHT on CA State Route 120 East near Big Sand Flat (November 2023)

In 2014, horses were documented in the Sagehen Summit area, approximately 12 miles west of the MPWHT. The horses continued to move west and in 2015, wild horses began showing up in high numbers on the shores of Mono Lake, approximately 20 miles from MPWHT. The

November 2015 census documented approximately 397 horses outside of the boundaries of the MPWHT (Appendix 1. Maps).

From 2018 to present, local agencies have recorded routine observations of horse distributions. Observations were made in all seasons throughout the year. These observations are grouped into three general areas where horses commonly congregate. These three areas of increasing distance from the territory boundary are Cowtrack/Granite Basin, Big Sand Flat corridor along HWY 120 East, and Mono Lake shoreline. Observations in the Cowtrack/Granite Basin drainage consist of smaller groups routinely trailing through to water sources. Observations in the Big Sand Flat corridor consist of larger groups of up to 190 horses with groups of over 100 common near and along the highway. This area has posed the biggest hazard to motorists and horses. Observations along the shore of Mono Lake included the highest individual count on the eastern shore which was 557 in August 2022. This area includes concentrations of horses at South Tufa, Warm Springs and as far as Rush Creek, where they are damaging resources (i.e. tufa) and impacting springs. In May 2023, several horse carcasses were found in the highly visited areas of Mono Lake Tufa State Natural Reserve. Other observations of horses were recorded throughout the project area such as Highway 6 along the base of the White Mountains.

The October 2020 census identified approximately 498 horses outside of the established MPWHT. Lastly, the February 2024 census identified approximately 624 horses outside of the established MPWHT.

Wild horses are routinely coming onto and crossing roadways outside of the MPWHT such as US HWY 6 and CA-SR 120E, creating a safety hazard for travelers. Several vehicle collisions have been documented, along with one bicycle-horse collision (CHP Collision Reports on file INF). Some of these collisions have resulted in serious injuries to individuals, major damage to personal property, and horses that were killed.

In summary, horse numbers and distribution have changed dramatically in the last 15 years. The combination of forage availability, proximity to water, changes in livestock grazing practices, and lesser risk of predation have contributed to horses moving outside of and permanently residing outside the territory and to increasing population numbers.

Wild Horse Diet

Numerous studies identify dietary overlap of preferred forage species and habitat preference between horses/burros, cattle, and wildlife species in the Great Basin ecosystems for all seasons (Ganskopp 1983; Ganskopp and Vavra 1986, 1987; McInnis 1984; McInnis and Vavra 1987; Smith et al. 1982; Vavra and Sneva 1978). A strong potential exists for exploitative competition between horses and cattle under conditions of limited forage (water and space) availability (McInnis and Vavra 1987).

Although horses, and domestic cattle and sheep are often compared as grazers, horses can be more destructive to rangelands due to their differing digestive systems and grazing habits. For example, the dietary overlap between wild horses and cattle is much higher than with wildlife, and averages between 60 and 80 percent (Hanley 1982; Hansen et al. 1977; Hubbard and Hansen 1976; Krysl et al. 1984; McInnis and Vavra 1987). Horses are cecal digesters while most other

ungulates including cattle, pronghorn, and others are ruminants (Beever 2003; Hanley and Hanley 1982). Ruminants, especially cattle, must graze selectively, searching out digestible tissue (Olsen and Hansen 1977). Horses, however, are one of the least selective grazers in the West because they can consume high fiber foods and digest larger food fragments (Beever 2003; Bauer et al. 2017; Hanley and Hanley 1982)

Wild horses can exploit the high cellulose of graminoids (grasses and grass-like plants), which have been observed to make up over 88 percent of their diet (Hanley 1982; McInnis and Vavra 1987). However, this lower quality diet requires that horses consume 20-65 percent more forage than a cow of equal body mass (Hanley 1982, Menard et al. 2002). With more flexible lips and upper front incisors, both features that cattle do not have, wild horses trim vegetation more closely to the ground (Beever 2003; Menard et al. 2002; Symanski 1994). As a result, areas grazed by horses may retain fewer plant species and may be subject to higher utilization levels than areas grazed by cattle or other ungulates.

Hanley and Hanley (1982) compared the diets of wild horses, domestic cattle and sheep, pronghorn antelope, and mule deer and found that horse and cattle diets consisted mostly of grasses, pronghorn and mule deer diets consisted mostly of shrubs (>90 percent), and sheep diets were intermediate. Due to different food preferences, diet overlap between wild horses, deer, and pronghorn rarely exceeds 20 percent (Hanley and Hanley 1982; Hansen et al. 1977; Hubbard and Hansen 1976; Meeker 1979).

Environmental Effects

Proposed Action

Helicopter Drive Trapping

Under the proposed action, effects to wild horses would be both direct and indirect to individual horses. For over 40 years, impacts to wild horses as a result of gather activities have been observed. Gather methods and procedures have been identified and refined to minimize stress and impacts to wild horses during gather implementation. There is policy in place for gathers to enable efficient and successful gather operations while ensuring humane care and treatment of animals gathered (PIM 2021-002, Appendix 3 and 4). This policy includes standard operating procedures such as time of year and temperature ranges for helicopter gathers to reduce physical stress while horses are being herded toward a trap; maximum distances to herd horses based on climatic conditions, topography, and condition of horses; and handling procedures once the animals are in the trap.

In any given gather, helicopter gather-related mortality averages only about one half of one percent (0.5%), which is very low when handling wild animals. Approximately, another six-tenths of one percent (0.6%) of the captured animals, on average, are humanely euthanized due to pre-existing conditions and in accordance with BLM policy (GAO 2008, Scasta 2019). Pre-existing conditions include such things as club feet, teeth worn to the gums, poor body condition and old breaks to limbs that healed poorly. These data support that the use of helicopters and motorized vehicles has proven to be a safe, humane, effective, and practical means for the gather and removal of excess wild horses (and burros) from the public lands. The BLM also avoids gathering wild horses by helicopter during the 6 weeks prior to and following the expected peak of the foaling season (i.e., from March 1 through June 30).

Individual, direct impacts to wild horses include the handling stress associated with the roundup, capture, sorting, handling, and transportation of the animals. The intensity of these impacts varies by individual and is indicated by behaviors ranging from nervous agitation to physical distress.

Other direct impacts to individual animals could be injuries that occur when being herded to trap site corrals by the helicopter. These injuries are very rarely fatal and may be treated on-site until a veterinarian can examine the animal and determine if additional treatment is indicated.

Other injuries may occur after a horse has been captured and is either within the trap site corral, the temporary holding corral, during transport between facilities, or during sorting and handling. Based on prior gather statistics, serious injuries requiring euthanasia occur in less than 1 horse per every 100 captured. Similar injuries could be sustained if wild horses were captured through bait and/or water trapping, as the animals still need to be sorted, aged, transported, and otherwise handled following their capture.

To minimize the potential for injuries from fighting, the animals are transported from the trap site to the temporary holding facility where they are sorted into large pens as quickly and safely as possible. There they are provided with hay and water and allowed to settle.

Gathering wild horses during the summer months can potentially cause heat stress. Gathering wild horses during the fall/winter months reduces risk of heat stress but does not eliminate it. Adherence to the SOPs, CAWP, and techniques used by the gather contractor, FS or BLM staff will help minimize the risks of heat stress. Heat stress does not occur often, but if it does, death can result. Most temperature related issues during a gather can be mitigated by adjusting daily gather times to avoid the extreme hot or cold periods of the day.

The FS, BLM, and the contractor would be proactive in controlling dust in and around the holding facility and the gather corrals to limit the horses' exposure to dust.

Indirect impacts to wild horses include those which occur after the gather event, including but not limited to miscarriages in mares, increased social displacement, and conflict. These impacts, like direct impacts, are known to occur intermittently during wild horse gather operations. An observed indirect effect in other gathers is a brief 1-2 minute skirmish between horses in a holding corral which ends when one retreats. Injuries typically involve a bite or kick with bruises. Like direct individual impacts, the frequency of these impacts varies with the population and the individual.

A few foals may be orphaned during a gather. This can occur if the mare rejects the foal, the foal becomes separated from its mother and cannot be matched up following sorting, the mare dies or must be euthanized during the gather, the foal is ill or weak and needs immediate care that requires removal from the mother, or the mother does not produce enough milk to support the foal. On occasion, foals are gathered that were previously orphaned on the range (prior to the gather) because the mother rejected it or died. These foals are usually in poor condition. Every effort is made to provide appropriate care to orphan foals. Gather staff may administer

electrolyte solutions or feed milk replacer as needed to support their nutritional needs. Orphan foals may be placed in foster homes in order to receive additional care. Despite these efforts, some orphan foals may die or be euthanized if the prognosis for survival is very poor.

Through the capture and sorting process, wild horses are examined for health, injury, and defects. Decisions to euthanize animals in field situations would be made in conformance with FS and BLM policy. BLM PIM 2021-007 is used as a guide to determine if animals meet the criteria and should be euthanized. Animals that are euthanized for non-gather related reasons include those with old injuries that cause lameness or prevent the animal from being able to maintain an acceptable body condition (greater than or equal to a Henneke body condition score (BCS) of 3); or animals that have serious dental abnormalities or severely worn teeth and are not expected to maintain an acceptable body condition, and wild horses that have serious physical defects such as clubbed feet or severe limb deformities. Some of these conditions have a causal genetic component such that the animals should not be returned to the range; this prevents suffering and avoids amplifying the incidence of the deleterious gene in the wild population. Wild horses not captured may be temporarily disturbed and moved into another area during the gather operation. With the exception of changes to herd demographics from removals, direct population impacts have proven to be temporary in nature with most, if not all, impacts disappearing within hours to several days of release. No observable effects associated with these impacts would be expected within one month of release, except for a heightened awareness of human presence.

Water and Bait Trapping

Bait and/or water trapping generally requires a long window of time for success. Although the trap would be set in a high probability area for capturing excess wild horses residing within the area and at the most effective time periods, time is required for the horses to acclimate to the trap and/or decide to access the water/bait. During this acclimation period the horses would experience some stress due to the panels being setup and perceived access restriction to the water/bait source. The Comprehensive Animal Welfare Program (CAWP), PIM 2021-002 would be implemented to ensure a safe and humane gather occurs and would minimize potential stress and injury to wild horses.

When actively trapping wild horses, the trap would be checked on a daily basis. Wild horses would be either removed immediately or fed and watered for up to several days prior to transport to a holding facility. Existing roads would be used to access the trap sites. Gathering of the wild horses utilizing bait/water trapping could occur at any time of the year and could continue until the target number of animals residing outside MPWHT boundaries are removed. Generally, bait/water trapping is most effective when a specific resource is limited, such as water during the summer months. For example, in some areas, a group of wild horses may congregate at a given watering site during the summer because few perennial water resources are available nearby. Under those circumstances, water trapping could be a useful means of reducing the number of wild horses at a given location, which can also relieve the resource pressure caused by too many horses. As the proposed bait and/or water trapping in this area is a low stress approach to gathering of wild horses, such trapping can continue into the foaling season with reduced likelihood of harm to the mares or foals.

Impacts to individual animals would be similar to those for helicopter gathers and could occur as a result of stress associated with the gather, capture, processing, and transportation of animals. The intensity of these impacts would vary by individual and would be indicated by behaviors ranging from nervous agitation to physical distress. Mortality of individual horses from these activities is rare but can occur. Other impacts to individual wild horses include separation of members of individual bands and removal of animals from the population. Indirect impacts can occur to horses after the initial stress event and could include increased social displacement or increased conflict between animals. These impacts are known to occur intermittently during wild horse gather operations. Traumatic injuries could occur and typically involve bruises caused by biting and/or kicking. Horses may potentially strike or kick gates, panels or the working chute while in corrals or traps which may cause injuries. These impacts, like direct individual impacts, are known to occur intermittently during wild horse gather operations. Since handling, sorting and transportation of horses would be similar to those activities under Helicopter drive trapping, the direct and indirect impacts would be expected to be similar as well.

Transport, Off-Range Corrals, Off Range Pastures, and Adoption Preparation

During transport, potential impacts to individual horses can include stress, as well as slipping, falling, kicking, biting, or being stepped on by another animal. Unless wild horses are in extremely poor condition or an accident occurs, it is rare for an animal to die during transport.

Recently captured wild horses in very thin condition may have difficulty transitioning to feed. A small percentage of animals can die during this transition; however, some of these animals are in such poor condition that it is unlikely they would have survived if left on the range. During the adoption preparation process, potential impacts to wild horses are similar to those that can occur during transport. Injury or mortality during the preparation process is low but can occur.

Mortality at off-range corrals (ORCs, formerly short-term holding) facilities averages approximately 5% (GAO-09-77, Page 51), which includes animals euthanized due to a pre-existing condition, animals in extremely poor condition, animals that are injured and would not recover, animals that are unable to transition to feed; and animals that die accidentally during sorting, handling, or preparation.

BLM Off-Range Pastures (ORP) are designed to provide excess wild horses with humane, and in some cases life-long care in a natural setting off the public rangelands. There, wild horses are maintained in grassland pastures large enough to allow free-roaming behavior and with the forage, water, and shelter necessary to sustain them in good condition. Mares and sterilized stallions (geldings) are segregated into separate pastures. For the BLM, about 39,000 wild horses that are in excess of the current adoption or sale demand (because of age or other factors such as economic recession) are currently located on private land pastures in Oklahoma, Kansas, Iowa, Missouri, Montana, Nebraska, Utah, Wyoming, Washington, and South Dakota. The establishment of ORPs is subject to a separate NEPA and decision-making process. Located mainly in mid or tall grass prairie regions of the United States, these ORPs are highly productive grasslands compared to more arid western rangelands. These pastures comprise about 400,000 acres (an average of about 10-11 acres per animal). Of the animals currently located in ORP, less than one percent is age 0-4 years, 49 percent are age 5-10 years, and about 51 percent are age 11+ years.

Potential impacts to wild horses from transport to adoption, sale or ORP are similar to those previously described. One difference is when shipping wild horses for adoption, sale or ORPs, animals may be transported for up to a maximum of 24 hours. Immediately prior to transportation, and after every 24 hours of transportation, animals are offloaded and provided a minimum of 8 hours on-the-ground rest. During the rest period, each animal is provided access to unlimited amounts of water and two pounds of good quality hay per 100 pounds of body weight with adequate space to allow all animals to eat at one time.

Horses residing on ORP facilities live longer, on the average, than wild horses residing on public rangelands, and the natural mortality of wild horses in ORP averages approximately 8% per year but can be higher or lower depending on the average age of the horses pastured there (GAO09-77, Page 52). A small percentage of the animals may be humanely euthanized if they are in very poor condition due to age or other factors.

No Action Alternative

With the No Action Alternative, wild horse populations outside the MPWHT would continue to increase and expand into areas not designated for their use. Excess concentrations of wild horses would continue to impact site specific areas outside of the MPWHT into the future, not only impacting or destroying sensitive resources values that are present in those areas, but also reducing the areas' ability to support the excess horses. The animals would not be subject to the individual direct or indirect impacts of a trapping operation. However, individual animals in the herd would be subject to increased stress and possible death as a result of vehicular encounters and collisions, and increased competition for water and/or forage as the population continues to grow even further until it exceeds the land's capacity to meet the wild horses' habitat needs. The areas currently experiencing heavy use by wild horses would increase over time and degradation could become irreversible in areas where ecological thresholds are passed, thus rendering these lands incapable of supporting horses or other wildlife. Continued and expanded movement outside the MPWHT would be expected as greater numbers of horses search for food and water for survival, thus impacting and degrading larger areas of public and private lands. This degradation of the range could result in impacts to horse health such as starvation and increased exposure to collisions with vehicles.

3.2 ARCHAEOLOGICAL RESOURCES

Affected Environment

Previously completed archaeological resource inventories indicate that prior to contact the project area was used for a wide array of resource procurement activities and ceremonial practices. Temporally diagnostic artifacts suggest that the project area was differentially utilized for more than 10,000 years. Among the more archaeologically observable and abundant of the targeted resources is obsidian, which served a variety of technological roles and was valued as a trade item. Two sources of obsidian tool-stone, Mono Craters and Glass Mountain, are partially located within the project area, while four additional obsidian sources, Bodie Hills, Truman-Queen, Casa Diablo, and Mount Hicks surround the project area. These source locations were exploited for quality tool-stone material for thousands of years, leaving remnant scatters of obsidian flake-stone strewn across the project area.

The harvest and storage of pinenuts plays a critical role in Paiute subsistence and culture. Within the project area, precolonial evidence of these activities is found within, and adjacent to the pinyon-juniper woodland. These sites contain evidence of pinyon cone storage in the form of rock ring caches placed opportunistically throughout denser woodland areas with aspects and landforms suitable for winter pinenut cone storage. Associated with some caches are similar rock ring features used for temporary habitation. These have associated artifacts and physical residues indicative of domestic activities. In addition to rock rings, rock alignments, and hunting blind features are also strategically located throughout the region.

Several other forms of precontact era features are found in the project area. Rock art, in the form of both petroglyphs (pecked and incised) and pictographs (painted) have been previously located and recorded. Far less abundant, but just as anthropologically significant are several large-scale drive traps located within the project area. These features consist of converging fence-lines, some several kilometers long, constructed from juniper limbs and sagebrush, which meet at a corral trap. During the precontact era, prior to circa-1850, these features were constructed and used by indigenous hunters to drive and capture pronghorn antelope (Arkush 1990:11). Later during the ethnohistoric era, post-1850, some of these game drives were repurposed by local tribes to capture feral horses (Arkush 1990:13-14). These horses were then broken, trained, and sold to local ranches (La Braque 1984:64-65; Steward 1933:257).

Historic resources identified in the area are related to early homesteading, ranching, mining, and transportation. European-American settlement began during the mid-1850s when the area experienced its own gold rush. Makeshift towns were rapidly established, and local economies soon developed. Shortly, thereafter, ranches and farms were established to meet the local demand for fresh produce, milk, and meat. Historically, use of the project area was predominately associated with ranching and livestock grazing. Evidence of these uses can be found in the form of the historic Adobe Ranch and its iconic stone corral located within Adobe Valley. historic sheepherder inscriptions located on several of the water tanks still in use in the eastern Mono Basin and in several historic homesteads located within the northeastern portion of Mono Basin. The project area also contains two unique historic resources Mono Mills and River Springs. Mono Mills is a historic sawmill and narrow-gauge railway that supplied building materials and firewood to the historic town of Bodie beginning in the 1880s. These commodities were critical for Bodies continued operation and growth. Mono Mills was previously determined eligible for listing on the National Register of Historic Places for this association but has not been formally listed. River Springs is a stagecoach stop on the stage line from Bishop to Bodie. This stage line was operated by Wells Fargo and Company in the 1880s through the early1900s. The station house and associated stone corral are still standing within the project area.

Lithic scatters (reduction areas), habitation localities, and quarry sites are especially vulnerable because trampling and hoof action can displace, physically break, and/or otherwise alter and destroy artifacts and surface archaeological features. Historic wood structures can be damaged by horse cribbing and erosion. Sites damaged by wild horse grazing begin to erode as a result of soil displacement and compaction and vegetation loss as well, increasing loss of integrity over time until they are eventually completely destroyed.

Increasing populations of wild horses have impacted archaeological resources by trampling and assisting in erosion, which damages and displaces archaeological resources. These impacts are visible near water sources and more generally throughout the project area where wild horse trails intersect archaeological resources. Numerous horse trails have been developed throughout the project area due to the territorial expansion and increase in population of wild horses. These trails cross miles of terrain and in many locations are deeply incised. Where these trails intersect archaeological resources, impacts are occurring.

Environmental Effects

Proposed Action

In consultation with the California State Historic Preservation Officer, and in cooperation with the Inyo National Forest, the Bureau of Land Management is serving as Lead Federal Agency responsible for ensuring this undertaking complies with the National Historic Preservation Act (NHPA, 36 CFR 800). The proposed action will protect archeological resources through avoidance and will be implemented in a manner that precludes adverse effects to historic properties. As proposed, all activities with the potential to adversely affect historic properties would be placed within previously disturbed areas that have been inventoried for archaeological resources with negative findings. These measures will ensure that impacts to archaeological resources during project implementation are avoided. The removal of wild horses from outside the Territory would eliminate ongoing impacts to archaeological resources caused by the displacement of artifacts, damage to features, erosion, and breakage.

No Action

The no action alternative does not remove wild horses from the rangeland; therefore, impacts would continue to occur at archaeological sites. The no action alternative could be expected to result in continued or increased detrimental effects on cultural resources, particularly those around water sources where horses congregate and where horse trails intersect archaeological resources. Increasing numbers of wild horses would intensify damage to archaeological resources, especially in areas beyond their current distribution. This damage could be expected through loss of archaeological soil deposits near the surface, soil compaction, artifact breakage, and increased bare ground, exposing sites to looting. Overgrazing in some areas where cultural resources are located could result in a destruction of some resources through erosion and trampling. As the range and population of the wild horses increase, additional resource impacts are anticipated. For example, if wild horses move into the Bodie Hills, impacts to archaeological resources associated with the Bodie Hills obsidian quarry would be anticipated.

3.3 FUELS/FIRE

Affected Environment

The dominant fuels in the area are comprised of shrub-dominated vegetation types (see Vegetation and Special Status Plants section) mountain mahogany stands occurring along rock ridge tops, and pinyon, Jeffrey pine (Eastside pine vegetation type), and lodgepole pine in higher terrain. Sizable acres within the project area have been burned. Wildfire ignition sources were both natural and human caused. Previous fires ranged in size from a few acres to over 10,000 acres. Landscape and ecosystem assessments following wildfires, in some cases, determined the need, type, and scale of emergency stabilization and restoration treatments. One consideration in

the recovery of desired vegetation conditions were whether permitted livestock grazing should be excluded from an area, for a select portion of time. FS and BLM worked with the permittee(s) to avoid areas for desired restoration results.

Within the project area, FS and BLM lands have been targeted with fuels reduction and fire regime restoration projects. Projects have often been managed for multiple resource outcomes including the desire to establish fuel breaks around communities or to improve habitat for wildlife species. In the sagebrush ecosystems, fuel projects have improved sage-grouse habitat by removing trees that were encroaching into sagebrush. In the Jeffrey pine forest ecosystems vegetation management projects using mechanical treatments and prescribed fire have helped to restore the frequent, low intensity fire regime.

Environmental Effects

Proposed Action

The Proposed Action may have a minor beneficial effect on natural fire regimes in the project area. Removing the unmanaged grazing by wild horses in areas not designated for their use may reduce the spread of invasive species and allow native vegetation communities to be more resilient to wildfire (see vegetation section). In addition, all wild horse gather operations will follow agency standard fire prevention terms (i.e. require all trucks and equipment be equipped with fire extinguishing equipment, etc.) based on the project activity level and changes to gather operations may occur at the discretion of the agency's Authorized Officer based on fire and fuels conditions.

No Action Alternative

The No Action alternative would allow wild horses to graze outside the MPWHT in areas not designated for their use. Wild horse populations would be expected to continue to increase possibly affecting fuels. Wild horse grazing may reduce the amount of fine fuels that can carry wildfires. However, when grazing is not managed, it can increase invasive species which may lead to a change in fire regime increasing fire size and frequency (see invasive plants section). Wild horse grazing cannot be effectively managed to meet fire management goals and the direction in the FS/BLM plans is to manage horses only inside the MPWHT. Furthermore, post-fire restoration, and fuels and fire regime restoration efforts that may be needed could be impeded or damaged by horse grazing and trampling.

3.4 GEOLOGY

Affected Environment

In general, geological resources within the project area have been influenced by the tectonics of the eastern Sierra Nevada mountains and development of Basin and Range Province. The project area includes tufa, a unique geological resource present in and around Mono Lake.

Tufa is a special type of limestone that forms when dissolved minerals in underground freshwater springs mix with minerals found in alkaline lake water. Tufa are found in many forms, but the tall limestone columns, known as towers, are most common in Mono Lake. The South Tufa Grove has the highest concentration of these towers. A unique form of tufa, known as sand tufa,

is present in limited quantities adjacent to Mono Lake's shorelines. Sand tufa are made up of intricate sand tubes and columns that are exposed as winds strip away the sandy coverings. Sand tufa are delicate and vulnerable to damage from humans and animals. Because of the unique processes that drive the creation of tufa, they are a rare and non-renewable geological resource.

Damage to tufa towers and sand tufa is presently occurring as a result of humans and wild horses. Human damage to tufa is limited to high use developed recreations sites. Horse damage to tufa is occurring in conjunction with horses along the shorelines of Mono Lake. Horses are trailing through tufa formations and rubbing against tufa towers. Horses have been observed trampling sand tufa formations.

Photo: Wild Horse trailing through Sand Tufa, South Shore of Mono Lake (April 2023)

Environmental Effects

Proposed Action

The proposed action would involve use of existing roads and would not disturb geological resources, including tufa. Impacts to tufa from trailing, trampling, and rubbing by wild horses would be substantially reduced, if not eliminated, as result of the proposed action.

No Action Alternative

The no action alternative would result in the continuation of damage to tufa towers and sand tufa due to trailing, trampling, and rubbing by wild horses. Wild horse populations would continue to increase and expand. As wild horses expand into new areas in search of forage and water, they may impact additional tufa that are currently undisturbed.

3.5 HUMAN HEALTH AND SAFETY

Affected Environment

Human health and safety concerns presently exist in areas outside of the MPWHT and are concentrated along roadways and high use recreation sites. Wild horses are currently crossing

highways (US HWY 6, CA SR 120E) and other high-use roads outside the MPWHT creating hazards for travelers. Several vehicle collisions have been documented, along with one bicycle-horse collision (CHP Collision Reports on file INF). Incidents have resulted in serious injuries to individuals, major damage to personal property, and horse deaths. Wild horse and public interactions have increased within high use recreation sites along the shores of Mono Lake. Primary locations where safety concerns and potential conflicts exist are the South Tufa and Navy Beach areas.

Environmental Effects

Proposed Action

The Proposed Action will reduce or eliminate the potential for wild horse/vehicle collisions and improve visitor safety within the project area.

No Action Alternative

Under the no action alternative, wild horses will continue to cross highways and present a hazard to travelers. Wild horse populations would continue to increase and expand. As wild horses expand into new areas in search of forage and water, they may cross additional roadways including US HWY 395. Safety concerns at high use recreation sites would continue to exist because these horses are wild animals, and there is potential for injury when individuals get too close.

3.6 INVASIVE PLANTS

Affected Environment

Invasive plants are known to exist on public lands within the project area. Invasive plant species can be aggressive, typically nonnative, ecologically damaging, undesirable plants, which negatively impact ecosystems. Because of their aggressive nature, invasive plants can readily spread into established plant communities primarily through ground disturbing activities. In addition, new populations can become established when seeds are transported to new locations via equipment, vehicles, animals, and people.

The Inyo National Forest maintains a list of specific invasive plants prioritized for management (USDA 2019). There are no category 1 (eradicate) or category 2 (control) within 100 feet of proposed gather and holding locations. Species that do not meet the definitions of these categories such as Russian thistle (*Salsola tragus*) and cheatgrass (*Bromus tectorum)* are found scattered throughout the project area and in some gather locations. The sagebrush and native perennial grass dominated alliances in which anticipated gather and holding sites would be located are generally considered moderately to highly vulnerable to invasion from invasive annual grasses such as cheatgrass (Chamber 2007). Cheatgrass has long been recognized as a primary threat to sagebrush-dominated alliances (Young et al 1987). There may be other invasive plant species that also occur in the project area but are not inventoried.

Environmental Effects

Proposed Action

The removal of wild horses will have a positive benefit to ecosystem resilience and will therefore reduce the likelihood of spread of invasive species in the long term. Adherence to design features will minimize the risk of invasive plant introduction and spread as a result of project activities.

However, the proposed gather may introduce and/or spread invasive plants. Spread of invasive plants may occur if vehicles drive through infestations and spread seed into areas that were previously void of invasive plants; this risk is highest for Russian thistle since some of the identified gather and holding sites are already infested. New invasive species may be introduced by gather operations because incoming vehicles and stock may carry invasive plant propagules. This introduction is limited by the following design features: any equipment or vehicles would be cleaned before moving into the project area, weed-free forage would be utilized for stock, and all gather sites and holding facilities on public lands would be monitored for invasive plants after use.

Despite short-term risks associated with using vehicles and stock off-road, the removal of wild horses is anticipated to reduce the risk of invasive plant spread long-term. Removal of horses that are currently moving across the project area would likely result in a reduction in vectors of spread as well as fewer disturbed sites that are vulnerable to invasion.

No Action Alternative

Risks associated with the gather operations would not occur. However, without the proposed gather, wild horses would continue to graze, and the population would continue to increase outside of the MPWHT. This would result in continued and increasing areas of disturbance as a result of grazing, trampling and bedding. Sustained use by wild horses increases habitat vulnerability to infestation by invasive species. Overall, continued residence and movement of horses outside the MPWHT is anticipated to reduce ecosystem resilience.

3.7 LIVESTOCK GRAZING

Affected Environment

The project area overlaps numerous FS and BLM grazing allotments as well as unallotted acreage and vacant allotments, primarily surrounding Mono Lake (Appendix 1. Maps). Permitted livestock use within the project area includes both cattle and sheep grazing. Season of use varies by allotment but is primarily summer grazing. Permitted grazing is prohibited on Forest Service relicted lands (those lands exposed as lake levels fluctuate) and developed recreation sites within the Mono Basin Scenic Area. No permitted grazing occurs within the State of California's Mono Lake Tufa State Natural Reserve. Currently, where wild horse use overlaps with grazing allotments, most of those allotments are permitted to domestic sheep and the FS and BLM work with sheep permittees to avoid sensitive areas such as wetland-riparian zones.

Adjustments to FS and BLM livestock grazing are implemented as appropriate, as grazing permits are renewed or through annual coordination between the land management agencies and the permit holder. Adjustments can include stocking rates, seasons of use, grazing rotations,

utilization standards, and other management practices to better control livestock distribution. Scheduled monitoring of allotments occurs to ensure compliance with permit terms and conditions. Livestock grazing is expected to continue at similar stocking rates. Utilization of the available vegetation (forage) are expected to remain at similar levels.

Forage and available water are being utilized by both wild horses and livestock in permitted grazing allotments outside of the MPWHT in areas not designated for wild horse management. Wild horse use within grazing allotments is presently affecting the ability of livestock operators to utilize their grazing permits.

Tables 3-2 and 3-3 displays the Forest Service and BLM grazing allotments that are located all or in part within the project area. Displayed is the allotment ID, the number and kind of livestock, and the season of use. A head month (HM) is a unit the Forest Service uses to define a month's use of the range by a cow/calf pair, by five goats or sheep, or by a single bull, steer, heifer, horse, burro, or mule. Animal Unit Months (AUMs) is a unit the BLM uses which is the amount of forage a 1,000 lb. cow with calf will eat in a month.

Table 3-2 Forest Service Allotments

ID	Allotment	Number	Kind	From	To	HMs
00121	Mono Lake	Closed	Closed	Closed	Closed	Closed
00120	Mono Sand Flat	26	Cattle	12/1	5/31	156
00108	Horse Meadow	Vacant	Vacant	Vacant	Vacant	Vacant
00105	Bloody Canyon	Vacant	Vacant	Vacant	Vacant	Vacant
00102	Alger Lake	Vacant	Vacant	Vacant	Vacant	Vacant
00109	June Lake	1500	Sheep	07/01	08/31	611
00107	Dexter Creek	1500	Sheep	06/15	09/15	917
00112	Mono Mills	3500	Sheep	07/01	09/15	1798
00104	Black Canyon	Vacant	Cattle	Vacant	Vacant	Vacant
00111	Long Valley	120 60	Cattle Cattle	06/06 06/06	09/15 08/31	402 172
00115	Clark's Canyon	12 20	Cattle Horse	06/15 06/15	10/15 10/15	49 81
00103	Alper's Canyon	Vacant	Cattle	Vacant	Vacant	Vacant
00114	Turner	25 325 25	Cattle Cattle Cattle	6/1 6/15 8/16	6/14 8/15 9/5	12 662 17
00204	Sherwin-Deadman	1550	Sheep	07/05	09/30	897

Table 3-3 BLM Allotments

ID	Allotment	Number	Kind	From	To	AUMs
6071	Bodie Mountain	1791	Cattle	6/1	10/15	5647
6072	Mono Sand Flat	505	Cattle	12/1	5/31	2370
6073	Potato Peak	235	Cattle	6/1	10/31	1088
6083	Aurora Canyon	526	Cattle	6/15	9/30	1737

6024	Hammil Valley	230	Cattle	10/1	6/15	1958
6025	Marble Creek	70	Cattle	3/1	2/28	840
6026	Mathieu	10	Cattle	6/1	10/31	50
6027	Adobe Valley	274	Cattle	6/15	11/15	1387
6038	Bramlette	82	Cattle	10/1	5/31	655
6053	Lone Tree	40	Cattle	10/1	5/15	300
6080	Blind Springs	15	Cattle	6/15	2/28	128
6028	Black Lake	8	Cattle	6/1	10/31	41
6034	Granite Mountain	900	Sheep	7/1	10/15	594
6036	Adobe Lake	1660	Sheep	6/1	10/31	100
6037	Symons	100	Sheep	6/1	10/31	127
6054	Mono Lake	763	Sheep	7/1	10/15	537
6055	Mono Mills	3045	Sheep	7/1	10/15	2142
6018	Hot Creek	476	Cattle	5/15	10/31	303
6022	Wilfred Creek	124	Cattle	6/1	11/30	305
6070	Little Mormon	2981	Sheep	6/1	10/31	1230
6059	Rancheria Gulch	900	Sheep	6/1	10/31	1600
6074	Mormon Ranch	582	Sheep	7/22	10/15	329
6084	Mt. Biedeman	507	Sheep	6/1	10/31	480

Environmental Effects

Proposed Action

Under the proposed action, wild horse gather operations have few direct impacts to permitted livestock grazing activities. Permittees will be notified two weeks prior to gather operations to help reduce impacts and conflicts with their livestock grazing operations. Livestock operators may experience some short-term displacement of camps/corrals during gather operations depending on season. Livestock located near gather activities would be temporarily disturbed or displaced by the helicopter and the increased vehicle traffic during the gather operations. Typically, livestock would move back into the area once gather operations cease.

The removal of wild horses would increase forage availability and quality, minimize competition for water and forage between livestock and wild horses, and improve vegetative resources. Livestock operations and grazing systems would function properly, and forage plants would receive the intended rest from grazing during scheduled rest periods. Forage quality and production for livestock grazing would be expected to be maintained. Over the long-term removal would result in decreased competition for water and forage, improving the long-term health of the range resources outside of the MPWHT.

No Action Alternative

Under the No Action, utilization by authorized livestock would continue to be impacted by the wild horses located outside the MPWHT. The impacts of the No Action Alternative would consist of continued resource deterioration as a result of year-round grazing by horses, including reduced quantity and quality of forage. Forage was allocated to livestock under land-use plans

and prior multiple use decisions. Competition from wild horses for limited water and forage may result in the inability of livestock operators to use their allotments.

3.8 RECREATION

Affected Environment

In the areas that horses currently utilize outside MPWHT, recreation activities include visits to day-use areas around Mono Lake (i.e. South Tufa), dispersed camping, motor touring, off-highway vehicle (OHV) use, hiking, climbing, horseback riding, wildlife watching, photography, hunting, and rock hounding. For FS, there are two permitted hunting guides, one outfitter guide, and one permitted bicycle event. For BLM, there are two permitted hunting guides, two climbing outfitter guides, and three permitted OHV events that utilize the area. Recreational photography and viewing of the horses have been observed both inside and outside of the MPWHT. Visitation in the project area is highest at day-use sites around Mono Lake.

Mono Basin is a popular destination for visitors coming to experience and photograph the area's unique landscape, which includes the tufa towers that are described in the Geology section. South Tufa is one of the most visited recreation sites within Mono County. Thousands of bird watchers visit Mono Basin each year to view migratory birds, such as the Wilson's phalarope (Chautauqua Festival, which falls annually on the third full weekend in June). Aside from the natural beauty, Mono Basin's day-use sites and the surrounding area are set aside for visitors to be inspired.

Wild horses at South Tufa and Navy Beach day-use sites are negatively impacting the viewshed and the smell scape by producing thousands of pounds of manure. There has been substantial public concern, including the organized volunteer group that support the Mono Basin Scenic Area Visitor Center (Mono Lake Volunteers), about the impacts of horses to these day-use areas, including tufa damage and visitors-created unapproved social trails when manure restricts access from established trails. In addition, visitors have expressed concerns for their safety at these sites due to the proximity and unpredictability of horses.

Environmental Effects

Proposed Action

The Proposed Action could temporarily impact visitors at day use sites around Mono Lake. Recreationists may experience some noise and visual disturbances from helicopter operations. The long-term effects of the Proposed Action will benefit visitors to the Mono Basin's developed recreation areas around the lake. The Proposed Action would reduce potentially dangerous human-horse conflicts on roads and trails within the Mono Basin.

During gathers, temporary area closures may impact recreationists, particularly OHV users and dispersed campers. At trap locations, dispersed camping could be restricted for the duration of the gather operation. Campers and OHV users would have to find other locations for the duration of a gather, however there is an abundance of dispersed camping options and OHV roads and trails options in proximity to the project area.

The proposed action would not impact recreational viewing of horses within MPWHT. However, after gathers are conducted, viewers would not likely be able to view or photograph horses outside the MPWHT (e.g. Mono Lake, Highway 120).

Hunters may be impacted during gathers by low flying helicopters which can disrupt wildlife making it more difficult to locate and approach an animal. It is possible for gather operations to occur during open hunting seasons, including on opening days. While the agencies can strive to avoid conducting gathers on the opening day of a hunt, it is not always practical to do so (due to limitations associated with the gather operation contracts). Impacts to hunters would be temporary and limited to those areas where trapping is actively occurring. The Proposed Action could have beneficial effects to hunters, because removing horses would improve wildlife habitat and reduce competition for forage and water.

Overall, the Proposed Action would result in decreased utilization of vegetation over time, which would improve some of the aesthetic values associated with the natural ecosystem and scenic values and improve the recreational experience.

No Action

Under the No Action Alternative, impacts to the scenic and natural values for recreationists, particularly in the Mono Basin, would continue unabated, although the presence of wild horses at highly visited locations, like South Tufa and Navy Beach day-use sites, would continue to cause public safety concerns through human-horse conflicts and may result in a decrease in opportunities for visitors to experience Mono Lake. In addition, manure would continue to impact visitor experience, which would likely perpetuate visitors-created unapproved social trails as visitors avoid it. Furthermore, as the horses seek food and water, they trample sensitive tufa towers which can destroy them. Persistence of tufa destruction would degrade the visitor experience and could eventually eliminate some opportunities to view tufa.

The No Action Alternative would lead to increased opportunities to view wild horses outside the MPWHT, as more animals would be present on the range. However, increased utilization of vegetation would occur over time, which could impact the scenic values of the area. Competition with wildlife for resources would continue and may increase, which could impact hunting experiences by reducing wildlife populations in the area.

3.9 SOIL RESOURCES

Affected Environment

Landforms within the Project Area vary from mountainous terrain to valley bottoms. Soil types within the Project Area are typical of the Great Basin and vary with elevation. A wide range of soils occur, from deep saline-alkaline soils associated with valley bottoms, to shallow loamy soils at higher elevations in the mountain ranges (Web Soil Survey 2024). Some of the dominant soil types include interdune, deep ashy, sandy, ashy loamy sand, rocky loam benches, gravelly loam, loamy slope, loam, and stony slopes. Soil development generally occurred under low precipitation regimes resulting in relatively slow development of soils.

Wild horse utilization and trailing decrease vegetative cover particularly in areas around water sources and negatively impacts soils. Changes in vegetative cover can reduce soil infiltration rates, which increases run off and consequently soil erosion, as well as decreased soil productivity.

Monitoring and aerial assessments indicates trailing by wild horses between limited water sources and foraging areas. Soils within riparian areas and wetlands are extremely vulnerable to trampling by wild horses. Trailing and hoof action by wild horses has the potential to accelerate erosion following intense summer convection storms or rapid snow melt through increased soil compaction and associated losses of vegetative cover.

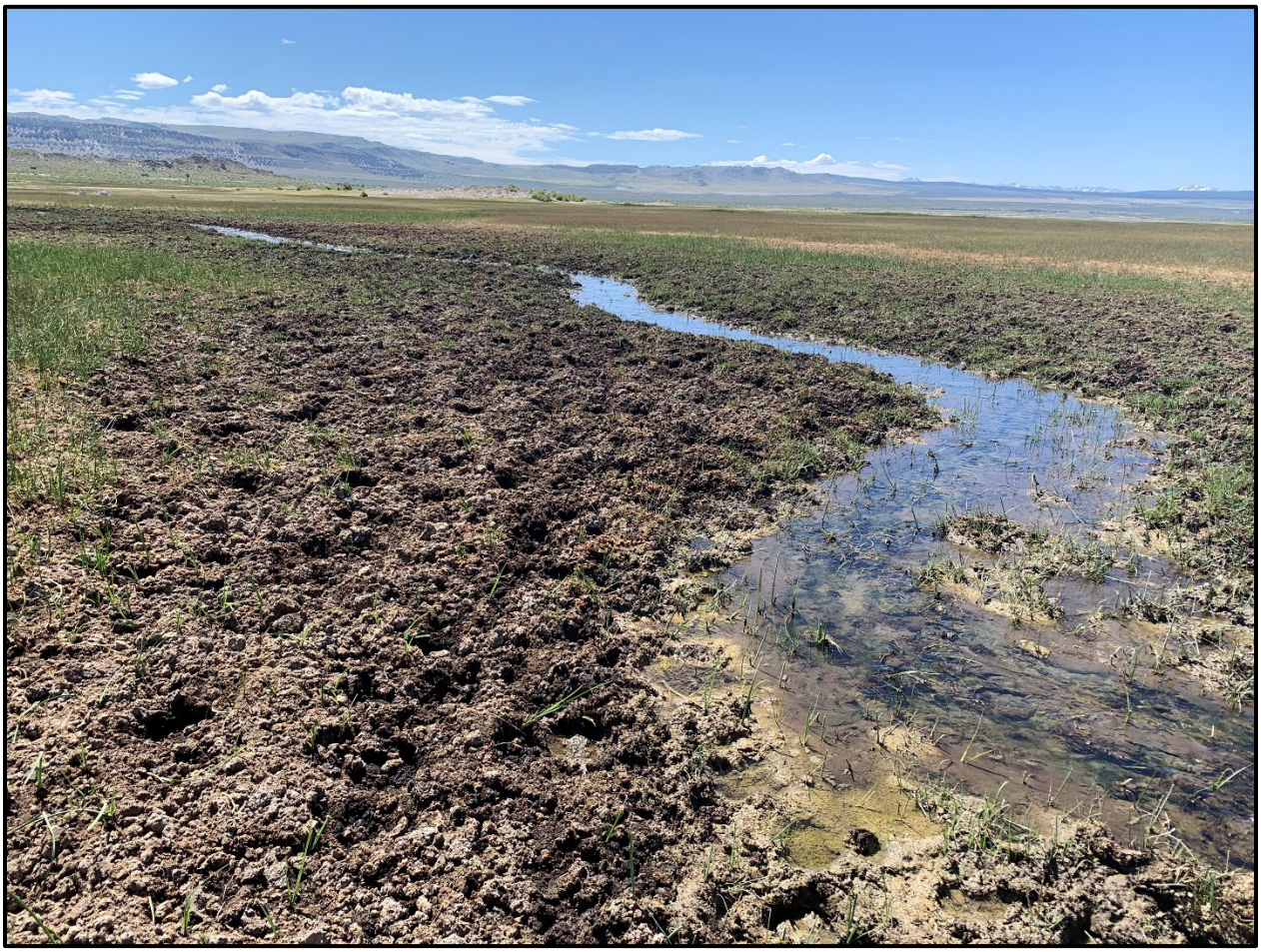

Photo: Streambank trampling and hoof action resulting from wild horse use, Mono Basin, (August 2023)

Environmental Effects

Proposed Action

Project implementation would involve use of existing roads and would disturb relatively small areas used for gathering and holding operations. Design features will help to reduce impacts to soils by using locations that are already disturbed. Horses may be concentrated for a limited period of time in traps and at temporary holding corrals. Impacts to soils are expected to be greater at temporary holding corrals, however only 1-2 are needed during a gather. These corrals (generally less than ½ acre) typically hold a large number of wild horses while they are sorted

and inspected prior to shipping them to off range corrals. In comparison trap sites are typically only used for a few days until horses have been gathered from a given area. Potential for soil compaction exists but would be minimal and temporary. The short-term effects to soils within these trap sites and temporary holding corrals are outweighed by the long-term beneficial impacts to soil resources that would occur as a result of removing wild horses from the range.

Impacts from trailing, trampling, and grazing activities by wild horses would be eliminated by removal. In general, utilization of forage by wild horses would cease which would allow residual vegetation and litter to remain on site and reduce bare ground. Increasing litter would provide additional protection from wind and water erosion, promote infiltration, capture surface flows, and reduce soil moisture loss by evaporation, thus allowing for better vegetative productivity. This would lead to increased soil functionality and increased soil processing resulting in increased soil development.

No Action Alternative

The no action alternative would result in the continuation of erosion due to the trailing, trampling and grazing activities by wild horses. Wild horse populations would continue to increase and yearlong grazing by horses would result in the loss of vegetative cover and litter that protects the soil surface. Compaction and soil loss are likely to accelerate as wild horse populations continue to grow. Impacts are likely to be greater near water resources and are reduced as distance to water increases.

3.10 VEGETATION AND SPECIAL STATUS PLANT SPECIES

Affected Environment

General Vegetation

The Vegetation and Special Status Plants affected environment and effects analysis will focus on the main areas where wild horses are occurring outside of the MPWHT (i.e., vegetation analysis area). Currently, wild horses occur within the Central Basin and Range ecoregion, which support a variety of vegetation types. Riparian and wetland areas are scattered throughout the area and are discussed separately in the Wetland/Riparian Areas/Riparian Conservation Areas section.

Shrub-dominated vegetation types (alliances) (USDA 2024[1,2]) (USDA 2009) represent the largest portion of the analysis area with the big sagebrush alliance, bitterbrush alliance and Great Basin mixed scrub alliance, representing much of the area horses currently utilize outside MPWHT. Big sagebrush (including basin, mountain and Wyoming sagebrush), bitterbrush, rabbitbrush, ribes, snowberry and ephedra are the prominent shrub species of these vegetation types. Understories are comprised of native perennial grasses and native perennial and annual forbs. Non-natives (e.g., cheatgrass, Russian thistle) may also be present but are generally only a minor part of the plant community with the exception being in some of the old fire scars. Vegetation canopy cover ranges from approximately 20 - 50% or greater in some of the late seral sagebrush and bitterbrush.

Other common vegetation types of the area include the Eastside pine (primarily dominated by Jeffrey pine) alliance, rabbitbrush alliance and sparsely vegetated herbaceous plant communities occurring on dry sandy soil areas (e.g., Big Sand Flat).

Overall, vegetation within the project area is relatively intact with only small areas of degradation or invasive plant infestation. However, past and present land use and land use management practices (e.g. Comstock era mining, logging, grazing and fire suppression) have decreased overall ability of native vegetation to recover after disturbance.

Numerous wildfires have impacted the area over the past 50 years. Within wildfire areas native vegetation recovery in the shrub dominated vegetation is highly variable. Differences in native vegetation recovery appear to be associated with elevation, pre-fire vegetation composition, invasive plant pressure, burn severity, fire size and years since the fire occurred. The overall cover of invasive annuals is variable in wildfire areas, with portions of some wildfires (e.g. Beach (2020), Indian (2012)) exhibiting moderate to high invasive annual cover. Moderate to high cover invasive plants can hinder recovery of native plants as well as natural recovery and increase invasive plant spread in adjacent unburned vegetation.

Current impacts to vegetation from permitted livestock grazing include trampling and crushing of vegetation which may result in reduced plant vigor, decreased reproduction and/or plant mortality. Livestock can also spread invasive plants which can lead to impacts to native vegetation (see invasive plants section). There is no permitted livestock use on lands managed by INF immediately surrounding Mono Lake or within the State's Mono Lake Tufa State Natural Reserve. Authorized sheep grazing occurs in the Mono Mills, Sagehen Summit and Cowtrack Mountain areas on lands managed by the INF and BIFO. Impacts associated with sheep are primarily confined to sheep bedding grounds, water troughs, and trailing areas. In frequently used sheep bedding grounds/watering trough areas, vegetation cover is very low to none. Larger bedding ground/water trough areas are up to approximately 0.5 acres in size. Noticeable impacts to vegetation decease sharply within a couple hundred feet of the edge of the bedding grounds. Impacts to vegetation throughout the remainder of the allotments and within cattle allotments tend to be low and are dispersed throughout the allotment (with the exception of around riparian areas within cattle allotments). Permitted livestock use includes seasons of use, stocking levels and terms and conditions to promote adequate vegetation productivity and deferred rotations to protect sensitive plant resources.

Current impacts to vegetation from wild horses include grazing (see wild horse diet section), trampling and degradation due to trailing and bedding as well as the spread of invasive plants (see invasive plants section). In areas of highly concentrated wild horse use, where use trails have established from wild horses trailing or congregating, vegetation loss and degradation is highest. These areas exhibit an increasing rate of native plant cover loss as well as a decreasing ability for native plants to reproduce and sustain dominance. Currently, high horse use areas outside of MPWHT occur along the northeast portion of Mono Lake, Sagehen/Big Sand Flat, Granite Basin, and Adobe Valley.

Current impacts of recreation are primarily crushing of vegetation and loss of native plant cover in off-trail areas utilized by visitors). Impacts to vegetation from recreation are primarily confined to the edges of recreation sites at South Tufa and Navy Beach, as well immediately adjacent to off-highway motorized routes (e.g. Mono Mills, Sagehen Summit). OHV use is low

in the areas that are currently used by horses and that are proposed for gathers, so these impacts are minor.

Special Status Plants

Special status species includes BLM special status plants and Forest Service at-risk plants. The BLM uses the term "Special Status Plants" to include: (1) Federal Endangered, Threatened, and Proposed plants and (2) BLM sensitive plants. BLM sensitive plants include all California State Endangered, Threatened, and Rare species; all species with a California Rare Plant Rank of 1B on the California Native Plant Society's Inventory of Rare and Endangered Plants; and other plants the State Director believes meet the definition of Sensitive. The Forest Service uses the term “At-Risk Plants” to include: (1) Federal Endangered, Threatened and Proposed plants; (2) Species of Conservation Concern (SCC). SCC are selected at the forest level based on potential vulnerability assessment, which was last updated in 2022.

Pinus albicaulis (whitebark pine) is the only Federally listed plant that may occur within the larger project area however it restricted to the Sierra Nevada and is not known or suspected of occurring in areas where wild horses occur.

The following table lists Special Status plants known to occur or with potential habitat in areas where wild horses primarily occur outside of the MPWHT (i.e., vegetation analysis area).

Table 3-4

Scientific Name	Common Name	Status	Present on BLM Land	Present on FS Land
Astragalus monoensis	Mono milk-vetch	BLM SSP, FS SCC	K	K
Astragalus pseudiodanthus	Tonopah milk-vetch	BLM SSP	K	NA
Boechera bodiensis	Bodie Hills rockcress	BLM SSP, FS SCC	K	K
Calochortus excavatus	Inyo County star-tulip	BLM SSP FS SCC	K	NA
Chaetadelpha wheeleri	Wheeler's dune-broom	FS SCC	NA	K
Cusickiella quadricostata	Bodie Hills cusickiella	BLM SSP	K	NA
Ivesia kingii var. kingii	Alkali ivesia	BLM SSP, FS SCC	K	N
Ladeania lanceolata (Psoralidium lanceolatum)	Lance-leaved scurf-pea	FS SCC	NA	K
Lupinus duranii	Mono Lake lupine	BLM SSP, FS SCC	K	K
Mentzelia torreyi	Torrey’s blazing star	FS SCC	NA	K
Plagiobothrys parishii	Parish’s popcornflower	BLM SSP, FS SCC	K	N
Physaria ludoviciana	Silver bladderpod	FS SCC	NA	K
Polyctenium williamsiae	Williams' combleaf	BLM SSP, FS SCC	K	N

Tetradymia tetrameres	Dune horsebrush	FS SCC	NA	K
Thelypodium milleflorum	Many-flowered thelypodium	FS SCC	NA	K

K – Known occurrences within the vegetation analysis area.
N – Not currently known to occur within vegetation analysis area.
NA - Not applicable, not a FS SCC or BLM SSP

Multiple FS SCC and BLM SSP are known within the vegetation analysis area (Table 3-4; represented as 'K'). Only Mono Lake milk-vetch and Mono Lake lupine are currently known to be negatively impacted by wild horse use. Wild horses are trampling SSP habitat and uprooted plants have been observed at some locations. Additionally, there is high potential for impacts to known locations of Parish's popcornflower, Inyo County star-tulip and dune horsebrush due to occurrences of these plants in areas where wild horses have been observed. Based on current monitoring, there are not likely impacts to other SSP species known within the greater project area due to little or no wild horse activity outside of the vegetation analysis area.

Within 100 feet of proposed gather and holding sites on FS lands, there are two occurrences of Mono Lake lupine (north of Highway 120 near Pilot Spring Road) and one occurrence of dune horsebrush (south of Pole Line Road on the northeast side of Mono Lake).

Special habitats

FS has designated and manages special habitat units. Special habitats have a selected ecological condition that are necessary to provide diversity for plant and animal communities. Within the analysis area, there are five FS special habitats: alkali-flat, dry-forb pumice, eolian dune field, sand dune deposits, and sand dunes, of which two are located within 100 feet of proposed gather/holding sites, one eolian dune field and one dry forb pumice, both near Mono Lake. Where wild horse use occurs within these habitat types, impacts will be similar to what was described in General Vegetation.

Environmental Effects

Proposed Action

General Vegetation

Gather sites and temporary holding facilities would primarily occur in areas of previous or existing vegetation and ground disturbance (e.g., sheep bedding grounds, existing coral areas, etc.). Sheep bedding grounds that that have been identified as potential gather sites occur within the big sagebrush or bitterbrush vegetation types or within old wildfire burn scars. Sheep bedding grounds within both unburned and burned vegetation are mostly baren and most of the gather site operations (approximately 0.5-acres/site) would fit within the barren area. However, it is expected that some of the activity would extend out into less disturbed areas of vegetation.

Project design features would limit, but not eliminate, impacts to vegetation. Trampling from wild horses, gather site equipment, foot, and vehicle traffic would occur, but on a limited scope and scale. Most impacts would be associated with herding operations and would result from wild horses trampling vegetation. Impacts would be most concentrated near the gather sites. Trampling impacts during herding operations would be similar to existing impacts from wild horses but more concentrated near the gather site. Helicopter gather operations would only occur for a few days at each site.

Unlike livestock where they are permitted and managed within allotments, wild horse utilization outside the MPWHT cannot be adjusted, in terms of season of use or quantity of animals. Furthermore, it is not feasible to install protective fences around sensitive vegetation resources (e.g. wetlands, pumice flats) in all the areas outside of MPWHT currently utilized by horses. Therefore, current horse use impacts vegetation year-round.

Compared to the current condition, the proposed action would have relatively limited short-term negative impacts to vegetation. In the long-term, there would be an overall benefit to plants and vegetation communities. Removing, or greatly reducing, wild horses that are outside the MPWHT would decrease grazing and tramping impacts to vegetative resources. This would result in maintaining or improving plant health, reproduction, diversity, and species composition thereby helping to maintain and improve native plant community functions within the area.

Special Status Plants

There would be no impact to Federally listed plant species or their suitable habitat. Currently, wild horses do not occur near any known occurrence of federally listed plants. Proposed project activities would not occur within occurrences or suitable habitat for any Federally listed species.

Direct impacts to special status plant (includes BLM sensitive plants and FS at-risk plants) occurrences and suitable habitat would be reduced, if not eliminated, by project design features, specifically by surveying for special status plants in advance of operations and by not locating gather and holding sites in special status plant occurrences (unless adverse impacts can be avoided). The known Mono Lake lupine occurrences within 100 feet of proposed gather and holding sites on FS lands will be avoided during operations, so direct impacts are not expected. Within the known dune horsebrush occurrence on FS lands, a proposed gather site is planned, so some plants may be trampled during operations. However, this species requires disturbance to persist, so the low level of disturbance anticipated during gather / holding operations is not anticipated to adversely affect the species.

The gathering of wild horses from outside the MPWHT would benefit special status plants and their suitable habitats by removing the impacts associated with wild horses (see affected environment). Special status plant occurrences and suitable habitat would not be grazed or trampled by wild horses, thereby allowing for recovery of impacted habitats, and reducing the potential of additional or continued impacts to special status species. Removing wild horses would increase the potential for special status plant survival within the project area. Gathering wild horses also removes the potential for wild horses to move into new areas and potentially impact additional special status plant occurrences and habitat throughout the project area. Wild horse removal would also reduce spread of invasive species which would benefit special status plants by reducing competition for resources and possibly displacement.

Special Habitats

At least one potential gather and/or holding site intersects special habitats. The design features allow for proposed activities within special habitats, but only if adverse effects can be avoided. The low level of anticipated additional disturbance is not anticipated to adversely affect these habitats such that they cannot sustain the plant and animal diversity for which they are managed.

No Action Alternative

General Vegetation

No impacts from gather activities would occur. However, in the absence of removing wild horses that are outside the MPWHT, impacts associated with wild horse use on vegetation would continue (see affected environment). Depending on the availability of food and water throughout the area, the number of wild horses may gradually increase and or spread to new areas. Increased wild horse numbers and/or movement of wild horses into new areas would result in additional negative impacts to native vegetation (see wild horse diet section).

Continued wild horse utilization outside MPWHT may result in increased loss of native perennial bunchgrasses, forbs and shrubs exposing, larger areas to potential loss of native plant dominance, increased invasive plant infestations, type conversion to non-native species and soil loss (due to lack to deep-rooted native bunchgrasses and shrubs) throughout the area (see wild horse diet section and invasive plant section).

Special Status Plants

Under the No Action alternative wild horses would continue to trample special status plants and their suitable habitat, most notably Mono milk-vetch, Mono Lake lupine and Parish's popcornflower. If wild horses are not removed from areas of special status plant habitat, over time, these areas may no longer be able to support special status plants. Continued impacts may result in changes to the habitat and a loss of special status plant occurrences. Additionally, if wild horses move into new areas where special status plants and their habitat occur, there is potential that those occurrences and/or habitat may also be negatively impacted, potentially leading to a loss of the species at those sites.

Special Habitats

Under the No Action alternative, wild horses would continue to trample special habitat areas. However, the disturbance is not anticipated to adversely affect these habitats such that they cannot sustain the plant and animal diversity for which they are managed.

3.11 WETLAND/RIPARIAN AREAS/RIPARIAN CONSERVATION AREAS

Affected Environment

Numerous wetland areas are scattered throughout the project area and range in size from small seeps to large meadow complexes and include riparian areas (wetlands found alongside streams, rivers and other waterbodies). These wetland/riparian areas are important for water quality, water quantity, and forage. Similarly, perennial and intermittent streams and creeks are also present within the project area and are commonly spring fed and snow melt driven systems, respectively. On a regional scale, California has lost approximately 91% of its wetlands, compared to estimates from 1780 (National Resource Council 1992).

Wetlands occupy a small percentage of the landscape but are disproportionately important habitat for wildlife. Overall, wetland and riparian ecosystems make up less than 3% of the project area (National Wetland Inventory, 2024). They often provide the only available source of water for many miles, provide habitat needs for many species and support greater numbers and diversity of wildlife.

Mono Lake has been classified as an Outstanding National Resource Water. The designation offers special protection for waters of ecological significance. Wild horses at the shores of Mono Lake have caused resource damage to riparian areas and springs that drain into Mono Lake.

Riparian areas tend to stay healthy when they remain in a vegetated state and are relatively undisturbed (Belsky et al 1999). Well-vegetated stream banks help to dissipate energy and reduce discharge velocities, allowing water to percolate into the soil, where it is stored for late season discharge and used by plants. Where vegetative cover is greatly reduced, stream bank stability is negatively impacted from the loss of vegetation and the associated root masses of those plants. In systems with excessive pressure, vegetation is often absent, bare ground is higher, and the soil compacted. These factors enable water to flow more quickly, resulting in erosion and decreased system functionality.

Grazing by wildlife, livestock, and wild horses can impact wetland/riparian areas through trampling and/or grazing of riparian vegetation. Currently, where wild horse use overlaps with grazing allotments, most of those allotments are permitted to domestic sheep where generally, operators haul water rather than use natural water sources. Sheep grazing use generally graze upland vegetation outside of riparian zones. In one study, 10 spring-fed riparian-wetland areas where wild horse use occurred were assessed (Burdick et al., 2021). For all 10 study sites, surface flow patterns had been altered due to disturbance and none of the sites had adequate stabilizing vegetation (Burdick et al., 2021). When plants are overgrazed and trampled, desirable native species can be replaced by less desirable species that produce little or no forage value. Early spring grazing can also adversely affect vegetation resources as a result of trampling of wet soils, uprooting of seedlings, and damaging mature plants. A decline in soil condition, plant cover, and plant species composition from trampling and overgrazing can result in bare soil and/or encourage the invasion and growth of invasive plants in wetland/riparian sites.

At the present time, wild horse use of wetland/riparian areas is readily evident, including trampling, trailing and excessive utilization. A decline in the quantity and diversity of stabilizing vegetation along wetland/riparian areas indicates these perennial and intermittent waterbodies are at risk of increased bank erosion and sedimentation. Wetland and riparian areas where horse use has been observed include Warm Springs, Navy Beach Spring, Simon Springs, Indian Spring, and Rush Creek.

Photo: Navy Beach Spring December 2020 Photo: Navy Beach Spring February 2022

Environmental Effects

Proposed Action

To avoid the direct impacts potentially associated with the gather activities, temporary gather sites and holding/processing facilities would not be located within wetland/riparian areas. Impacts from gather operations would likely be negligible relative to variations in the affected environment or would be of such short duration that they would not be measurable and would not remain any longer than the gather activities themselves. These effects include trampling of vegetation and alteration of sediments during the gather when animals' cross streams or springs as they are herded to temporary gather sites.

Removal of wild horses would eliminate their utilization pressure and trampling/trailing at wetland/riparian zones. Reduced pressure is anticipated to allow regeneration of riparian vegetation which would lead to improved system functionality over time. Hoof action on the soil around springs and stream banks would be lessened which should lead to increased soil stability and decreased compaction and erosion. Improved vegetation around riparian areas would dissipate stream energy associated with high flows and filter sediment that would result in some associated improvements in water quality. There would also be reduced competition between wild horses and wildlife for the available water.

No Action Alternative

Under this alternative, wild horses would not be removed, the population would continue to increase and therefore would continue to adversely impact wetland/riparian resources and their associated surface waters. Since wild horses have the potential to graze year-round (unlike livestock where areas within allotments can be rested or deferred from grazing) and are also in areas outside grazing allotments that are not managed for any grazing use (i.e. shoreline areas of Mono Lake), wild horses can damage riparian areas and spring sites in late summer and fall when little green forage is available in the uplands. Increased use at currently utilized wetland/riparian zones would lead to continued loss of vegetative, soil, and hydrologic functionality. Increasing horse numbers would likely result in even more horses traveling further

in search of available water sources leading to an increased number of wetland/riparian zones being impacted by wild horse use.

3.12 WILDERNESS/WILDERNESS STUDY AREAS/LANDS WITH WILDERNESS CHARACTERISTICS

Affected Environment

There is one Wilderness area, four Wilderness Study Areas (WSA), and five inventory units that were found to contain Lands with Wilderness Characteristics (LWC) within the proposed project area (Appendix 1. Maps). All the above-mentioned areas are managed by BLM BIFO. Both the Ansel Adams and John Muir Wilderness areas are outside of the project area.

Wilderness

In Section 2(c) of the Wilderness Act of 1964 (16 U.S.C. § 1131-1136), Congress stated that wilderness is an area of undeveloped federal land, in a natural condition, without permanent improvements or human habitation, and which has outstanding opportunities for solitude or primitive and unconfined recreation.

In 2009, the Omnibus Public Lands Management Act designated approximately 34,342 acres as the Granite Mountain Wilderness (GMW). The GMW offers opportunities for day hiking, backpacking, hunting, horseback riding, photography, and wildlife viewing. The Granite Mountain summit register recorded 81 visitors between November 2015 and February 2020. There have been no reports or documentation of conflict between visitors and wild horses in the GMW.

The boundary of the MPWHT does not overlap the GMW, and wild horses were not considered a managed resource during the designation of the GMW. Within the GMW there are portions of four livestock grazing allotments that are permitted for either cattle or sheep.

Wild horses have been observed in the GMW for several years (see Wild Horse section). The presence of wild horses degrades the natural quality of wilderness character of the GMW because they were not considered a natural part of the ecosystem at the time of wilderness designation. The wild horses are currently residing in areas where they compete with native populations of wildlife for forage, overgraze riparian areas, and trample native vegetation near springs and other water sources. Impacts to vegetation, water sources, and soils are described in the corresponding resource sections of this chapter.

Wilderness Study Areas

The Federal Land Policy Management Act of 1976 (FLPMA) (43 U.S.C. 1701–1785), Section 603, directed the BLM to review all roadless areas of at least 5,000 acres and to recommend to the President the suitability of such areas for preservation as wilderness. The inventory was initiated in 1978 and involved examining the public lands to identify WSAs that met the definition of wilderness established by Congress. The BLM California completed its Section 603 inventory in 1979, identifying 18 WSAs within the BIFO (four were released in the Omnibus Public Land Management Act of 2009). Wilderness study areas are managed to ensure they are unimpaired for preservation as wilderness until Congress designates those areas as part of the

National Wilderness Preservation System or releases them from WSA status. Designated wilderness is managed pursuant to the Wilderness Act, to preserve wilderness character, where WSAs are managed pursuant to FLPMA, to ensure they are unimpaired for preservation as wilderness.

Within the project area are the Bodie, Bodie Mountain, Mount Biedeman, and Excelsior WSAs, with a total of approximately 62,868 acres. The WSAs offer opportunities for camping, hiking, backpacking, hunting, motor touring, mountain biking, photography, and wildlife viewing. Access to the WSAs in the project area is limited during winter months. Visitation is recorded once per month by BLM staff while completing WSA monitoring surveys when the WSAs are accessible. Results from surveys recorded October 2019 through March 2024 show that Bodie and Bodie Mountain WSAs had the highest number of visitors. Of the 43 surveys submitted for Bodie WSA, no visitors were observed in 34 surveys, and the other eight surveys reported an average of four visitors. Bodie Mountain had similar results with 47 surveys recording zero visitors present, and 21 surveys reporting an average of three visitors. For all WSAs in the project area the activity most often observed was motor touring.

Wild horses have been observed in the Excelsior WSA, but not in the Bodie, Bodie Mountain or Mount Biedeman WSAs. There have been no reports or documentation of conflict between wild horses and visitors in the WSAs. The evaluation component of naturalness in WSAs is the absence of human-made features, not the natural integrity of an ecosystem. Therefore, the presence of wild horses does not degrade the natural quality of wilderness character in the WSAs because the horses would *appear* natural to the average visitor who is not familiar with the biological composition of natural ecosystems versus human-affected ecosystems. The wild horse impacts to vegetation, springs, and soils are described in the corresponding resource sections of this chapter.

Lands with Wilderness Characteristics

After completion of the 1979 wilderness inventory, the public lands that did not meet the criteria established in the Wilderness Act were returned to other multiple-use considerations. Because conditions may change over time, Section 201 of FLPMA requires the BLM to maintain on a continuing basis an inventory of all public lands and their resources and other values, which includes wilderness characteristics.

The project area contains the Excelsior North, Mormon Meadow East, Sugar Loaf South, Sugar Loaf West, and Masonic Mountain inventory units, which were last evaluated in 2012 and found to have wilderness characteristics. Although visitation is not regularly documented in these units, they are in proximity or adjacent to the WSAs described above, and so it is expected that visitation and the recreational activities of visitors are similar to those recorded in the WSAs. Wild horses have been observed in the Excelsior North inventory unit.

There have been no reports or documentation of conflict between wild horses and visitors. The evaluation component of naturalness in LWCs is the absence of human-made features, not the natural integrity of an ecosystem. Therefore, the presence of wild horses in LWCs would *appear* natural to the average visitor who is not familiar with the biological composition of natural

ecosystems versus human-affected ecosystems. Wild horse impacts to vegetation, springs, and soils are described in the corresponding resource sections of this chapter.

Environmental Effects

Proposed Action

There are no proposed gather sites within the GMW. Currently there are no proposed gather sites in WSAs or LWCs within the project area, although if needed, gather sites may occur in WSAs or LWCs in previously disturbed areas, such as sheep bedding grounds or other areas of compacted soils that are free of vegetation. The BLM's non-impairment standard for WSAs is defined where an authorized use or facility is temporary, and that the use or facility would not create new surface disturbance that would necessitate reclamation, rehabilitation, or restoration for the site to appear and function as it did prior to the disturbance. Any proposed gather site in previously disturbed areas within WSAs would meet the non-impairment standard.

There would be no landing of aircraft in the GMW, in any WSA, or in any LWC, except in an emergency. Driving horses through these areas may occur but would be avoided if possible. Helicopter drive operations may cause temporary closures to the GMW, WSAs and LWCs throughout the duration of the gather.

The undeveloped quality of wilderness character would not be affected in the GMW by the activities of the Proposed Action because there are no structures or installations, use of motor vehicles, motorized equipment, or mechanical transport proposed within the GMW.

For WSAs and LWCs, the quality of undeveloped is described under naturalness in BLM policy and is based on the *appearance* of the area to be in a natural condition, in contrast to the quality of natural described in the Wilderness Act where the area's ecological systems are free from the effects of modern civilization. If a gather site were proposed in a WSA or LWC and temporary corrals were constructed, there would be an impact to the appearance of the natural condition in the immediate area. Although fencing could be substantially unnoticeable, the presence of several horses and staff conducting gather operations would be easily noticeable as an unnatural condition. The duration of the impact would be short-term and would be expected to impact very few visitors based on visitation records for the WSAs in the project area.

The natural quality of wilderness character in the GMW would be improved if the wild horses were removed from the area because there is no HMA within the wilderness area, and the horses are not considered a natural part of the ecosystem. Removal of the wild horses would restore ecological balance and prevent further impacts to naturalness from degradation of vegetation, springs, and soils.

Temporary closures and restricted access to the GMW, WSAs, and LWCs may be initiated for gather operations. During periods of closure, opportunities for solitude or primitive and unconfined recreation would be impaired. If helicopter drive operations were planned near, but not within the GMW, WSAs, or LWC, and closures did not occur, opportunities for solitude may be impaired during gather operations from the sight and sound of the helicopter, increased vehicle traffic, and increased human presence performing and viewing the gather. Impacts from closures and gather operations to opportunities for solitude or primitive and unconfined

recreation would be short-term and are expected to impact very few visitors based on visitor use recorded on the Granite Mountain summit register and WSA monitoring surveys.

The untrammeled quality of wilderness character would be degraded by the removal of wild horses from the GMW because it is a human manipulation of the ecological systems within the wilderness. Although the horses are not considered a natural component of the GMW ecosystem, the action of humans removing them from the area, rather than the horses moving out of the wilderness naturally, would be a trammeling action.

No Action Alternative

The natural quality of wilderness character within the GMW would continue to degrade under the No Action alternative. Without a HMA within the wilderness area, wild horses would persist as a non-native component of the ecosystem and would continue to compete with native populations of wildlife for forage, overgraze riparian areas, and trample native vegetation near springs and other water sources within the wilderness. Under this alternative there would be no effect to the natural quality of wilderness character in WSAs and LWCs because the horses *appear* to be a natural part of the ecosystem.

The No Action alternative would preserve the untrammeled quality of wilderness character in the GMW. Opportunities for solitude or primitive and unconfined recreation in the GMW, WSAs, and LWCs would not be impacted by gather operations with this alternative.

3.13 WILDLIFE, INCLUDING MIGRATORY BIRDS, FISH, AND SPECIAL STATUS ANIMAL SPECIES

Affected Environment

Wildlife species common in the project area include mammals, birds, reptiles, amphibians, and invertebrates such as pronghorn antelope *(Antilocapra americana),* Mule Deer (*Odocoileus hemionus*) pygmy rabbits (*Brachylagus idahoensis),* dark kangaroo mouse *(Microdipodops megacephalus),* Great Basin spadefoot toad *(Sepa intermontana*), Pinyon Jay *(Gymnorhinus cyanocephalus)*, Bi-State sage-grouse *(Centrocercus urophasianus),* and the Great Basin springsnail *(Pyrgulopsis decaoni)*. Biological diversity varies according to topography, plant community, proximity to water, soil type, and season. Comprehensive surveys for many of the wildlife species within the project area have not been conducted so abundance and distribution of most of these species can only be inferred from available suitable habitats.

Big Game

The project area contains winter range, critical winter range, and migration corridors for mule deer from the Casa Diablo and Mono Lake herds. These herds are two of the six herds managed under the California Department of Fish and Wildlife's (CDFW) East Sierra Deer Conservation Unit (ESDCU). These herds typically spend late Spring, Summer, and early Fall in the higher elevations of the Sierra Nevada mountains where they browse on forbs, grass, and shrubs. By mid-fall they migrate east from the Sierra Nevada mountains into the Great Basin where they spend the winter months foraging on shrubs. Mule deer are common to the project area and frequently visit springs for water and browse in sagebrush and bitterbrush habitat in the Bodie

Hills, Sagehen Summit, Glass Mountains, and the Benton Range. Over the past decade, all herds within the ESDCU have experienced population declines. Research from CDFW suggest that survival and recruitment of these deer herds are determined mostly by resource availability. Population decline is attributed to low female survival rates due to poor body condition, and to a lesser degree, mortality caused by mountain lions and vehicle collisions (McKeever et. al, 2024, Pg. 2).

The project area contains year-round habitat for pronghorn antelope. Pronghorn occupy areas around Adobe Valley, Granite Mountain Wilderness and the Bodie Hills. Pronghorn primarily eat forbs and shrubs with grasses being the least preferred forage. Vegetation height, cover, and community type, as well as elevation, topography, and distance to water all influence pronghorn antelope habitat selection. There are two known pronghorn herds in the project area, the Bodie Hills and Adobe Valley herd. The Bodie herd occupies habitat along the northern edge of the project area and do not overlap with the current horse occupied areas. The Adobe herd overlaps with much of the horse occupied area, and within the last decade, anecdotes from local residents and game managers have noticed fewer observations of pronghorn around River Spring, where wild horses are frequently found. Competition with horses is likely to be the primary reason for pronghorn to leave the area.

Migratory Birds

Management for these species is based on IM 2008-050 dated December 18, 2007 (BLM 2007) and the Migratory Bird Treaty Act. Numerous species of migratory and non-migratory birds, including raptors, utilize habitat such as trees, shrubs, cliffs, and other upland vegetation within the project area for shelter, nesting, and foraging. Upland shrub and woodland habitats provide nesting structure, protection from predators, and thermal cover for passerines, as well as foraging habitat for raptors. Rock outcroppings/crevices provide nesting, roosting, and protection from predators for some bird species, and rocky ledges provide a nesting substrate and protection from predators for several raptor species. Generally, migratory bird species occur in higher concentrations in riparian areas. Typically, the nesting season is when these species are most sensitive to disturbance, which occurs from May 15-July 31. Riparian areas are scarce throughout the analysis area but are essential habitat for bird species of the arid and semiarid west and provide important stopping points for migratory birds passing through the Great Basin. Shorelines, springs and wetlands of Mono Lake provide habitat for hundreds of thousands of migratory birds stopping by on their journey to South America including California gulls, Eared Grebes, and Wilsons and red-necked phalaropes. Currently, wild horses outside the MPWHT are contributing to areas of heavy vegetation use, trailing, and trampling in upland and riparian/wetland areas used by migratory birds.

Photo: Wild Horse impacts on Migratory Bird habitat, Eastern Shoreline of Mono Lake (August 2023)

Bi-State Sage-Grouse

The Bi-State sage-grouse (hereafter, sage-grouse) is a genetically distinct and isolated sub-population of the greater sage-grouse and is considered a Distinct Population Segment (DPS) by the US Fish and Wildlife Service (FWS). Currently the Bi-State Sage-Grouse DPS is proposed for listing as Threatened, with Proposed Critical Habitat under the Endangered Species Act (ESA) and is undergoing a 12-month review to determine if listing is warranted.

Proposed species are covered under the BLM Sensitive Species Manual (BLM 2008). In addition, the Bishop RMP (1993) states that these species will be managed to avoid the need for listing as state or federal endangered or threatened species and provides yearlong protection to not allow discretionary actions that will adversely affect their habitat. FS policy requires that proposed species are managed such that FS actions will not contribute to listing (FSM 2670; USDA 2012). Under the 2012 planning rule, each wildlife species is evaluated at the Forest level to determine if it is "at-risk" for persistence on that Forest; during this process, many proposed species are included on a Forest's at-risk species list (USDA 2012). Since 2019, Bi-State Sage-grouse is included on the INF at-risk list. Both agencies are collaborators to the Bi-State Sage-Grouse Action Plan and involved in coordinated conservation efforts.

Sage-grouse are sagebrush obligate game birds that requires large, intact, sagebrush habitats throughout all seasons for forage and cover. During the nesting and brood rearing seasons, from May to August, sage-grouse require access to mesic meadows where they forage on forbs and insects. Range wide, sage-grouse populations have faced significant declines in recent decades due to habitat fragmentation and habitat loss due to natural resource development, wildfires, conifer expansion, and habitat conversion to invasive weeds (Garton et. al 2015). To address these issues, the Bi-State population has a long history of monitoring and conservation actions implemented by the Bi-State Local Area Working Group (LAWG), which consists of multiple state and federal agencies, local governments, organizations, and private stakeholders. One function of the LAWG was to develop a 10-year action plan which was completed in 2012. The LAWG is currently developing the 2024 action plan that identifies and addresses the various threats to each sub-population within the Bi-State. The project area overlaps the Bodie Hills, Sagehen, Parker Meadow, and Long Valley sub-populations. The upcoming action plan identifies wildfire, large-scale infrastructure, recreation small and declining populations, and wild horse overpopulation and range expansion as the greatest threats to these populations, collectively.

There are approximately 15 active leks and several inactive leks within the project area. Most active leks are in the Bodie Hills and Long Valley subpopulations and do not overlap with the current wild horse occupied habitat located outside the MPWHT. In Sagehen, there are two inactive leks that are commonly occupied by wild horses. These two are the only leks overlapping with horse occupied habitat and have declined in sage-grouse attendance over the past decade.

The project area covers large swaths of proposed critical habitat for the Bi-State sage-grouse (Appendix 1. Maps). Critical habitats contain physical or biological features essential to the conservation of the species and habitats which may require special management considerations or protection. These habitats include leks sites, nesting habitat, brood rearing habitat, and winter habitat. All of these habitats are present within the project area, and where horses are currently residing.

Pygmy Rabbit

Pygmy Rabbits are a BLM sensitive species and under status review for listing under the Endangered Species Act (USDI FWS 2024). They are found in suitable habitat throughout the project area in the Mono Basin, Adobe Valley, and Long Valley. They are sagebrush obligate species that depend on sagebrush for forage and shelter in all seasons of their life.

Comprehensive surveys for pygmy rabbit have not been conducted in the project area in recent years but based on past surveys, they occur in the project area in habitats with both deep soils and large sagebrush. Occupied pygmy rabbit habitat overlaps with horse use. Pygmy rabbits dig burrow systems with multiple entrances, often at the base of a large shrub, that they use for shelter from elements and protection from predators. Current risks to pygmy rabbits are from habitat loss caused by wildfire, invasive plants, habitat degradation, and potential trampling of burrows and habitat degradation by wild horses.

Environmental Effects

Proposed Action

Direct short-term impacts from gather activities include transient, localized disturbance to individuals and wildlife habitats from the presence of people, vehicles, helicopters and wild horses at the trap locations and temporary holding facilities during gather operations. Implementation of the proposed action would provide the greatest long-term benefit to wildlife by allowing habitats impacted by wild horses to recover and by eliminating the competition between wildlife species and wild horses for forage and water resources.

Individual animals of all species may be disturbed or displaced during gather operations. Large mammals and some birds may run or fly (flush from the nest) during helicopter operations, but animals should return to normal activities post displacement. Small mammals, birds, and reptiles would be displaced at staging areas. Overall, there would be negligible impact to wildlife and migratory bird populations as a result of gather operations due to the timing to avoid important periods such as breeding. Additionally, the footprint of the gather is small, and the disturbance is short term and temporary.

The use of previously disturbed areas for staging areas and corrals would reduce impacts to migratory birds and their habitat. Trapping and helicopter operations are limited between May 1 through July 30 which corresponds with peak nesting season for migratory and local birds, sage-grouse breeding season, and fawning season for big game species. Following design features, staging, corral, and trap sites that may cause ground disturbance or damage to vegetation would be surveyed for nesting birds, if gather operations were to occur during the migratory bird breeding season, March 1 through July 31. Nesting migratory birds may be present on or near the project site and may be temporarily displaced by noise disturbance from gathering activities. Due to the short duration of gathering activities, impacts to migratory bird populations are not anticipated.

No activities that would adversely affect leks would occur within 1/3 mile. No activities would take place in known sage-grouse breeding or nesting habitat from May 1 through June 30. With design features in place, no impacts to sage-grouse are expected from the proposed action during the critical breeding and nesting period. Season-long grazing will be reduced by wild horse removal.

Pygmy rabbit suitable habitat is expected to improve through implementation of this project. Implementation may result in short-term trampling of vegetation by movement of wild horses during the gather operation and direct burrow impacts will be avoided through Design Features. Implementation of the project will have long-term benefits similar to other sagebrush obligate species in that improvements in rangeland health will result by the elimination of year-round grazing by wild horses and will support pygmy rabbit access to forage and shelter. Removal of wild horses would also minimize impacts to burrows by trampling.

No Action Alternative

Under a no action alternative, wildlife would not be disturbed or displaced by gather operations.

Wild horses compete with wildlife species for various habitat components, especially when habitat resources become limited (i.e., reduced water flows, low forage production, dry conditions, etc.). Competition between big game (deer and antelope) and wild horses for forage and water resources would continue and may worsen as wild horse numbers continue to increase outside the MPWHT. In addition to direct impacts to waterbodies, wild horses spend a lot of time at water sources and will drive away livestock and native ungulates from watering and feeding areas (Miller, 1981; Perry et al., 2015). Increased competition could lead to a displacement of big game and would compound the long-term environmental stresses associated with drought and predation.

There is growing concern about limited water and forage available to wild horses and wildlife in the desert climate of the Great Basin. Heavy use of forage near available water and competition between wild horses and wildlife for limited forage and water has increased. In addition, wild horses can have an impact on native wildlife around water sources (Gooch et al. 2017, Hall et al. 2016, Crist et al. 2019).

It has been observed that wild horses may cause sage-grouse to abandon leks and that sage-grouse were approximately five times more likely to be active on leks concurrent with native ungulates compared to non-native ungulates (Munoz 2020). In these studies, of the 4 ungulate species observed, sage-grouse were least likely to be at active leks where wild horses were present. In the past 5 years, three previously active leks in the Sagehen area have been abandoned. Although there may be several factors leading to abandonment, wild horses are commonly seen in large numbers on all the lek sites. Coates et al. (2021) noted that increasing densities of horses are associated with decreasing greater sage grouse population sizes. Under a no action alternative, horses would continue to occupy and degrade sage-grouse lekking habitat, cause abandonment of leks and nests, and potentially hurt or kill individuals, chicks, and eggs.

Wild horses outside the MPWHT will continue to degrade areas through heavy vegetation use, trailing, and trampling in upland and riparian/wetland areas used by migratory and shorebirds around Mono Lake. Also, under the no action alternative, sagebrush obligate species like the pygmy rabbit would continue to be impacted by effects from year-round grazing including to forage, shelter, and damage to burrows by trampling.

3.14 RESOURCES NOT ANALYZED IN DETAIL

Table 3-5 Resources Not Analyzed in Detail

Resource	Rationale for Elimination
Area of Critical Environmental Concern (ACEC)	The Conway Summit, Travertine Hot Springs, and Bodie Bowl ACECs are located within the Project Area (Appendix 1. Maps). There are currently no wild horses using these ACECs and no gather sites would be established within them. The Proposed Action would have no impacts from gathers and would prevent impacts to ACECs by removing horses before they could further expand their range and impact them. The

	No Action alternative could lead to impacts to ACECs if horses moved into them as described within the Recreation, Vegetation, Wetland, and Wildlife analysis below. Because no impacts are occurring now and there are no proposed actions in the ACEC, no further analysis is needed.
Air Quality *(The Clean Air Act of 1955, as amended)*	Parts of the project area occur within the Mono Basin Federal Air Quality Non-Attainment/Maintenance Area and conform to the applicable State Implementation Plan requirement. The Mono Basin Federal Air Quality Non-Attainment/Maintenance Area is under jurisdiction of the Great Basin Unified Air Pollution Control District (GBUAPCD), federal actions are subject to conformity determinations under 40 CFR 93. The Proposed Action could result in small and temporary areas of disturbance. However, the project includes design features (e.g. applying water to roadways for dust mitigation) to reduce effects to the resource, therefore, impacts would be negligible and would not measurably change PM10 emissions within the Mono Basin Federal Air Quality Non-Attainment/Maintenance Area. Under the No Action Alternative, fugitive dust emissions could occur due to the soil disturbance as a result of the trampling action from wild horses when soil moisture levels are low. Both the Proposed Action and No Action have negligible effects; therefore, no further analysis is needed.
Environmental Justice and socioeconomics *(Executive Order 12898)*	The Proposed Action will not adversely or disproportionally impact minority populations, low-income communities, or Tribes. The Proposed Action would not have a disproportionately high or adverse effect that would place socioeconomic burdens on the citizens of Mono County and nearby cities due to the limited context and intensity of the proposal. No group of people, including racial, ethnic, or socioeconomic group would bear a disproportionate share of the negative environmental consequences resulting from the Proposed Action, therefore this is not analyzed in further detail.
Native American Religious Concerns *(Executive Order 13007)*	No affected traditional religious or cultural sites of importance have been identified through consultation in the project area.
Roadless Areas (INF 2001 Roadless Rule)	Excelsior and Glass Mountain Inventory Roadless Area (IRA) are not affected because no gather operations are proposed within these areas.
Special Management Areas (INF LMP)	Indiana Summit Research Natural Area (RNA), Sentinel Meadow RNA, and the Mono Basin Forest Scenic Area are located within the project area (Appendix 1. Maps). There are currently no wild horses using these RNAs and no gather sites would be established within them. The Proposed Action

	would have no impacts from gathers and would prevent impacts to RNAs by removing horses before they could expand their range and impact them. The No Action alternative could lead to impacts to RNAs if horses moved into them as described within the Recreation, Vegetation, Wetland, and Wildlife analysis below. Effects to resources within the Mono Basin Forest Scenic Area are discussed within the Recreation, Vegetation, Wetland, and Wildlife analysis sections. The proposed action is consistent with the Mono Basin Forest Scenic Area Comprehensive Management Plan.
Visual Resources	Visual resources are managed by BLM via Visual Resource Management classes and by Forest Service via Scenic Integrity Objectives and, within the Mono Basin Forest Scenic Area, by scenic standards and guidelines. The Proposed Action is consistent with both agencies' direction for managing visual resources because the Proposed Action would not put in place permanent structures and would only occur for short periods of time. The No Action will have no impacts on Visual Resources either. There will be no permanent effects from either alternative; therefore, this is not analyzed in further detail.
Water Quality, Drinking/Ground *(Safe Drinking Water Act of 1974, as amended and Clean Water Act of 1977)*	Wild Horse use in the project area does not affect ground water or water quality for drinking water systems. Impacts from the Proposed Action and No Action alternatives are only on surface water and are not near any drinking water facilities. Effects to water quality in natural systems is covered in the Wetland/Riparian section.

CHAPTER 4. CUMULATIVE EFFECTS

In order to understand the contribution of past actions to the cumulative effects of the proposed action, this analysis relies on current environmental conditions as a proxy for the impacts of past actions. This is because existing conditions reflect the aggregate impact of all prior human actions and natural events that have affected the environment and might contribute to cumulative effects.

The cumulative effects analysis does not attempt to quantify the effects of past human actions by adding up all prior actions on an action-by-action basis. There are several reasons for not taking this approach. First, a catalog and analysis of all past actions would be impractical to compile and costly to obtain. Current conditions have been impacted by innumerable actions over the last century (and beyond) and trying to isolate the individual actions that continue to have residual impacts would be nearly impossible. Second, providing the details of past actions on an individual basis would not be useful to predict the cumulative effects of the proposed action. In fact, focusing on individual actions would be less accurate than looking at existing conditions,

because there is limited information on the environmental impacts of individual past actions, and one cannot reasonably identify each and every action over the last century that has contributed to current conditions. Additionally, focusing on the impacts of past human actions risk ignoring the important residual effects of past natural events, which may contribute to cumulative effects just as much as human actions. By looking at current conditions, we are sure to capture all the residual effects of past human actions and natural events, regardless of which particular action or event contributed to those effects. Finally, the Council on Environmental Quality issued an interpretive memorandum on June 24, 2005, regarding analysis of past actions, which states, "agencies can conduct an adequate cumulative effects analysis by focusing on the current aggregate effects of past actions without delving into the historical details of individual past actions." For these reasons, the analysis of past actions in this section is based on current environmental conditions.

Some of the main past activities that have occurred within the project area's affected environment include mining/aggregate operations, logging, permitted livestock grazing (sheep and cattle), range improvement development, right-of-way permitting, development of roads and highways, development of private lands, recreation (motorized and non-motorized), fuels reduction projects, prescribed fire, introduction of non-native plant species, and of more recent occurrence, the increase in wild horse use outside the MPWHT. These past activities, in general, have impacted vegetation, soils, wildlife habitat, and hydrologic resources within the project area.

Current activities within the project area's affected environment include aggregate operations, permitted livestock grazing (sheep and cattle), right-of-way permitting, recreation (motorized and non-motorized), fuels reduction projects, prescribed fire, and the presences of wild horse use outside the MPWHT. These current activities, in general, are impacting soils, vegetation, geologic features, wildlife habitat, and hydrological resources within the project area. Agencies measured the impacts of the alternatives against a baseline that assumes ongoing livestock grazing activity previously covered by earlier decision records would continue.

Agencies have reviewed their reasonably foreseeable future actions and identified no specific actions that interact with the alternatives that differ from the continuation of current activities. In the reasonably foreseeable future, activities that are likely to occur within the project area and interact with the proposed action include the continuation of permitted livestock grazing at current levels, recreation (motorized and non-motorized).

4.1 Cumulative Effects of the Proposed Action

Short-term

Considered in the context of other existing and foreseeable management activities, the short-term action of the Proposed Action of gathering horses, using trap sites and temporary holding facilities are not anticipated to meaningfully contribute to cumulative impacts. This is because the intensity, magnitude and duration of these effects are minor and not expected to interact with any reasonably foreseeable actions.

Long-term

The proposed action is expected to have long-term benefits to the resources discussed in Chapter 3. The proposed action with the removal of wild horses from areas outside of the MPWHT would eliminate competition and reduce excess pressure on shared resources of forage and water. In general, wildlife will persist throughout the project area. Permitted livestock grazing would continue following restrictions on when, where, and how long livestock can graze to minimize potential impacts to rangeland health. Livestock operations and grazing systems would function properly without year-round grazing by wild horses that have moved outside the MPWHT, and forage plants would receive rest from grazing during scheduled rest periods. Impacts to vegetation in the uplands and riparian areas would be reduced, allowing them to recover with time. Breeding, forage, nesting, and security habitat for all wildlife species would improve over time. The long-term impact to soil resources would be positive as the wild horses are removed through gather operations. This would result in restored soil structure, increased stability, and improved biological function of soils resulting in increased water-holding capacity, reduced erosion, and enhanced vegetation community support.

4.2 Cumulative Effects of the No Action

Permitted livestock grazing is the primary foreseeable activity contributing to cumulative impacts in association with the No Action Alternative. In locations where wild horse utilization and permitted livestock grazing overlap, there would likely be cumulative negative effects to rangeland health. Although management of livestock grazing would continue to follow restrictions on when, where, and how long livestock can graze within an allotment to minimize potential impacts to rangeland health. Where wild horses overlap with grazing allotments, overall impacts to forage are higher, as more forage is consumed in the same time periods. This does not allow managed livestock grazing systems to function as they have been designed. While livestock graze within allotments at designated times and are removed for scheduled rest periods, wild horses remain on the range year-round, continuously grazing forage through these rest periods. If wild horse numbers increase within allotments that are not managed for wild horse use and compete for forage, it is possible that livestock operators would need to make changes to grazing management, including reducing the size of herds.

Impacts to vegetation from wild horses are additive to existing plant stressors, including permitted livestock grazing, motorized recreation and climate change. These are likely occur on a scale that may meaningfully interact with these other stressors. The increased movement and utilization by wild horses outside of MPWHT would increase the risk of introduction and spread of invasive plants and loss of native cover which may, in turn, exacerbate negative affects to vegetation associated with current and future livestock grazing and recreation (e.g., OHV). As a result, there could be a cumulative decrease in plant vigor, reproduction, and cover. Impacts are expected to be greater in plant communities that are more vulnerable to invasive plants as well as loss of native plant cover and/or soil stability (e.g. sagebrush and/or native perennial grass dominated). Overall, native vegetation is expected to continue to degrade, resulting in decreased ecosystem resistance to additional disturbances.

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7.0 LIST OF APPENDICES

Appendix 1. Maps

Appendix 2. Scoping Summary Report

Appendix 3. Comprehensive Animal Welfare Program (CAWP) & Standard Operating Procedures (SOPs) for Inyo National Forest Wild Horse Gathers

Appendix 4. BLM Standard Operating Procedures (SOPs)

Appendix 5. Wild Horse Gather Observation Protocols