INTEGREATED MANAGEMENT OF TARGET SHOOTING ON THE PIKE NATIONAL FOREST

Proposed Action for Public Scoping, January 2021

Background

The Pike National Forest (the Forest), part of the Pike and San Isabel National Forests Cimarron and Comanche National Grasslands, is located in central Colorado, stretching north from Pikes Peak to Mount Evans, and west to the Continental Divide past the town of Fairplay (Figure 1). Given the Forest includes part of the Colorado Front Range adjacent to the two most populous centers in the state (the Denver metro area and Colorado Springs), much of this "urban" forest experiences heavy recreational use. In recent years, overall recreation use levels have increased in line with the population growth of the Colorado Front Range urban corridor. The US Census Bureau estimates the populations of Colorado, the Denver metro area, and the city of Colorado Springs grew by eight to ten percent in the five years between 2011 and 2016 (US Census Bureau, 2019). The combined population of the Denver metro area and Colorado Springs, both areas within a one-hour drive of the Pike National Forest, are estimated to have grown from over 3,263,400 in 2011 to over 3,570,500 in 2016 (ibid). The USDA Forest Service National Visitor Use Monitoring program estimates that annual visitation to the Pike and San Isabel National Forests (the smallest unit of measure available) increased five percent in the same period, from 4,281,000 site visits per year in 2011 to 4,502,000 site visits per year in 2016 (the last year data is available) (USDA Forest Service 2011, 2016).

Some visitors to the Pike National Forest participate in target shooting, also called recreational sport shooting. Target shooting has increased in popularity nationally over the past decade, and its growing popularity in Colorado has been amplified by the ongoing increase in population. According to the Outdoor Foundation (2018), the popularity of target shooting with rifles increased seven percent, and the popularity of target shooting with handguns increased 18 percent between 2011 and 2016. In Colorado, an estimated 307,000 people participated in target shooting using handguns, and 317,000 using rifles in 2016 (Southwick Associates, 2018). Dispersed target shooting, where forest visitors set up targets and practice shooting in an undesignated, undeveloped location, is a legal use of National Forest System lands if the participant follows basic regulations (36 CFR 261.10(d); https://www.fs.fed.us/visit/know-before-you-go/shooting) and the activity is not otherwise prohibited in that area. However, the sheer number of people visiting the Pike National Forest, the variety of recreational activities

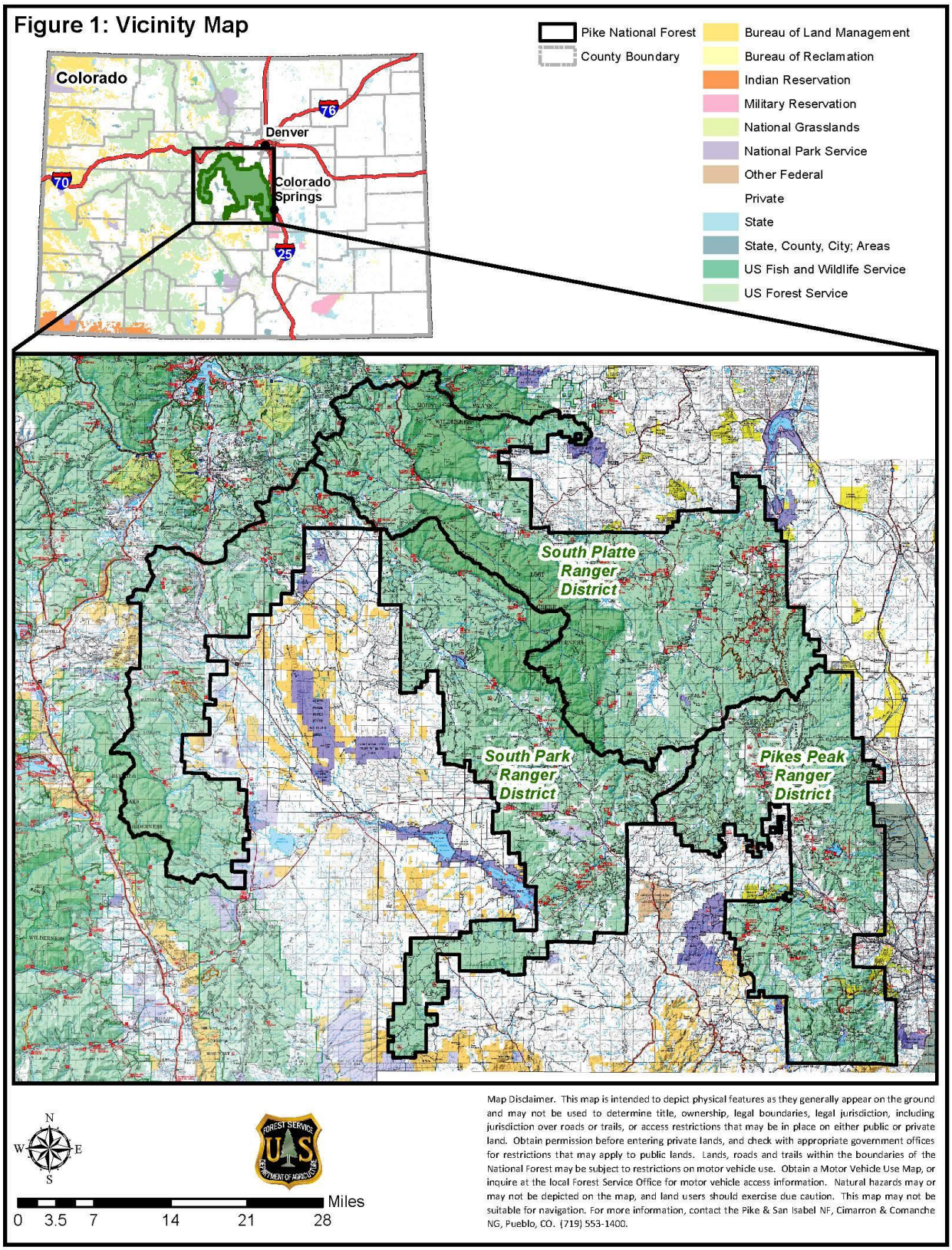
Figure 1: Vicinity Map
Pike National Forest
County Boundary
Bureau of Land Management
Bureau of Reclamation
Indian Reservation
Military Reservation
National Grasslands
National Park Service
Other Federal
Private
State
State, County, City; Areas
US Fish and Wildlife Service
US Forest Service
Colorado
Denver
Colorado Springs
70
76
25
South Platte Ranger District
South Park Ranger District
Pikes Peak Ranger District
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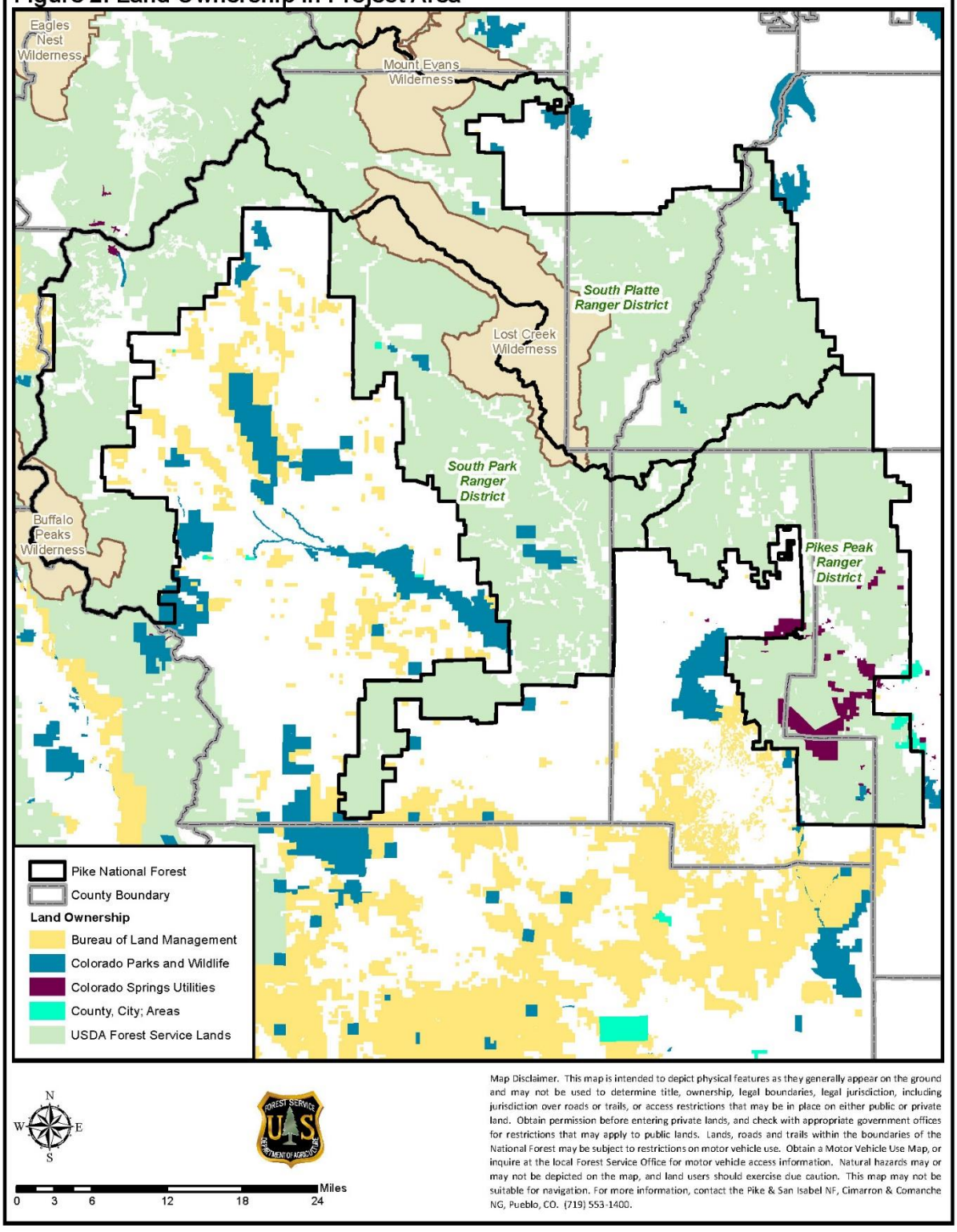
enjoyed by those visitors, and the more concentrated use occurring in popular areas can result in user conflicts. In addition, a number of target shooters fail to follow forest rules requiring that users clean up shooting waste, only use manufactured targets, and shoot in a safe manner. As a result, serious resource damage, regular wildfires, and injuries and even occasionally fatalities occur. A map of the project area identifying areas of concentrated target shooting use on the Pike National Forest, photographs of shooting damage, and the locations of the actions proposed below, is available online (https://storymaps.arcgis.com/stories/adebf2853f6e43519bfbc26e150750dd).

Public safety concerns and resource damage resulting from dispersed target shooting are not restricted to public lands managed by the US Forest Service. Public lands managed by a variety of federal, state or local entities occur within the project area (Figure 2). In order to address issues related to target shooting on public lands in the region, the Forest joined ten other land managers, including federal and state agencies (USDI Bureau of Land Management, Colorado Parks and Wildlife), counties (Douglas, El Paso, Fremont, Jefferson, Park and Teller), and public utilities (Denver Water Board and Colorado Springs Utilities) in convening the Southern Shooting Partnership (Partnership). The Partnership recognizes the need for public land management agencies to work collaboratively to manage the complex issues surrounding recreation in the urban interface, given the increasing population and increasing participation in target shooting, in order to provide for safe target shooting opportunities. In 2019, the Partnership sought public input on the issues and opportunities related to target shooting in the region. The Partnership hosted four listening sessions (in Douglas, El Paso, Park and Teller counties) where members of the public were invited to learn more about the group and voice opinions on the topic of target shooting in the local area. The Partnership also developed a survey to ask more specific questions regarding user experience, desired changes to target shooting opportunities, and concerns about the current condition. A total of 529 responses were received and have been considered by the Forest in the development of this project.

Over the past five years, the Forest has engaged not only the Partnership but also other local governments, community members, first responders, and the recreating public to gage the current conditions relating to how people participate in target shooting on the Pike National Forest. Based on this information and on the experiences and observations of US Forest Service employees across the three districts, the following needs for the Integrated Management of Target Shooting project and the proposed action were developed.

Figure 2: Land Ownership in Project Area



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NEED FOR THE PROJECT

Given the growing risks to public safety, resource damage and user conflict, and declining quality of the target shooting experience on the Pike National Forest, there is a need to:

- Provide opportunities for target shooting,
- Identify areas of the Forest where dispersed target shooting is not appropriate (including those areas previously closed under temporary orders),
- Identify sites on the Forest to develop shooting ranges,
- Specify a conditions-based adaptive management framework to manage target shooting into the future.

PROPOSED ACTION

The Pike National Forest proposes to address the needs relating to target shooting opportunities and impacts across the Pikes Peak, South Park, and South Platte Ranger Districts using a three-part approach:

1. Develop at least one shooting range on each ranger district;
2. Close areas of the forest to dispersed shooting based on potential risks to public safety, wildfire, impacts to adjacent private property; resource damage, user conflicts, or enforcement access;
3. Implement these changes using a conditions-based, adaptive framework.

DEVELOP SHOOTING RANGES

In order to reduce growing risks to public safety, resource damage, and user conflicts, the Forest proposes to provide target shooting opportunities in at least three designated locations on the Pike National Forest. The designated locations would be developed as shooting ranges and provide lanes appropriate for a variety of firearms, allow for lead collection and abatement, reduce wildfire risks, and minimize potential conflicts with other users. While these developed locations would provide a different experience than undeveloped dispersed shooting, any location selected would provide an outdoor experience very different from fully developed indoor shooting ranges.

The potential size, facilities, scale of built structures, and fees or supervision implemented at a site would be determined by the geography of the potential site and would follow the adaptive management conditions described in detail in Section 3.

Seven potential locations for developed shooting ranges have been identified, although not all of the sites would be selected for development (Figure 3). These sites were selected either because they are already a popular dispersed shooting spot in an

appropriate location, or because the geography of the site is conducive to safely developing shooting lanes. In order to better estimate the types of shooting opportunities that may be provided at each location, an initial, partial design for the shooting range was commissioned for each site (see project record). Given the varying areas available at each location and the topographic restrictions of each site, the resulting plans depict a variety of opportunities for site development. A description of each potential shooting area location is provided in Table 1. Other potential sites suggested during the scoping process would be considered during this planning process if they are found to be appropriate to the project needs.

Table 1. Potential locations for designated target shooting sites on the Pike National Forest. The Preliminary Design Attributes describes the types of facilities the site could accommodate should the sites be developed into a shooting range.

Site	Location Description	County	Current Use Level	Preliminary Design Attributes
Turkey Tracks	Pikes Peak Ranger District, off Colorado highway 67 approx. ten miles north of Woodland Park on NFSR 343, southeast of Westcreek	Douglas	High	Pistol 100 m rifle to 1000 m rifle lanes Rifle shooting gallery Shotgun sports range Multipurpose rifle
NFSR 372	Pikes Peak Ranger District, below Penrose Dam, off of NFSR 370 (Gold Camp Road)	Teller	Moderate	Pistol 100 m rifle
NFSR 376.A	Pikes Peak Ranger District, on NFSR 376 at the intersection with (closed) 376.A, below Mason and McReynolds Reservoirs	Teller	Low	Pistol 150 m rifle
NFSR 528.G	South Platte Ranger District, off Jefferson County route 126 at NFSR 528.G	Jefferson	High	Pistol 50 m rifle Multipurpose gallery

Site	Location Description	County	Current Use Level	Preliminary Design Attributes
NFSR 536	South Platte Ranger District, off Jefferson County route 126 at NFSR 536 near Kelsey Creek	Jefferson	Low	Archery range Archery course Pistol 1000 m rifle Sport shooting gallery Rifle target field
Harris Park	South Platte Ranger District, along NFSR 108.B off of NFSR 108 north of Harris Park	Park	High	Pistol 100 m rifle 200 m rifle Rifle target field
NFSR 704	South Park Ranger District, off of US highway 24 on Wilkerson Pass at NFSR 704, along NFSR 704.B	Park	Moderate	Pistol 100 m rifle 200 m rifle 300 m rifle 1000 m rifle Sport shooting gallery Rifle target field

Approximate locations of potential designated shooting areas are provided in Figure 3.

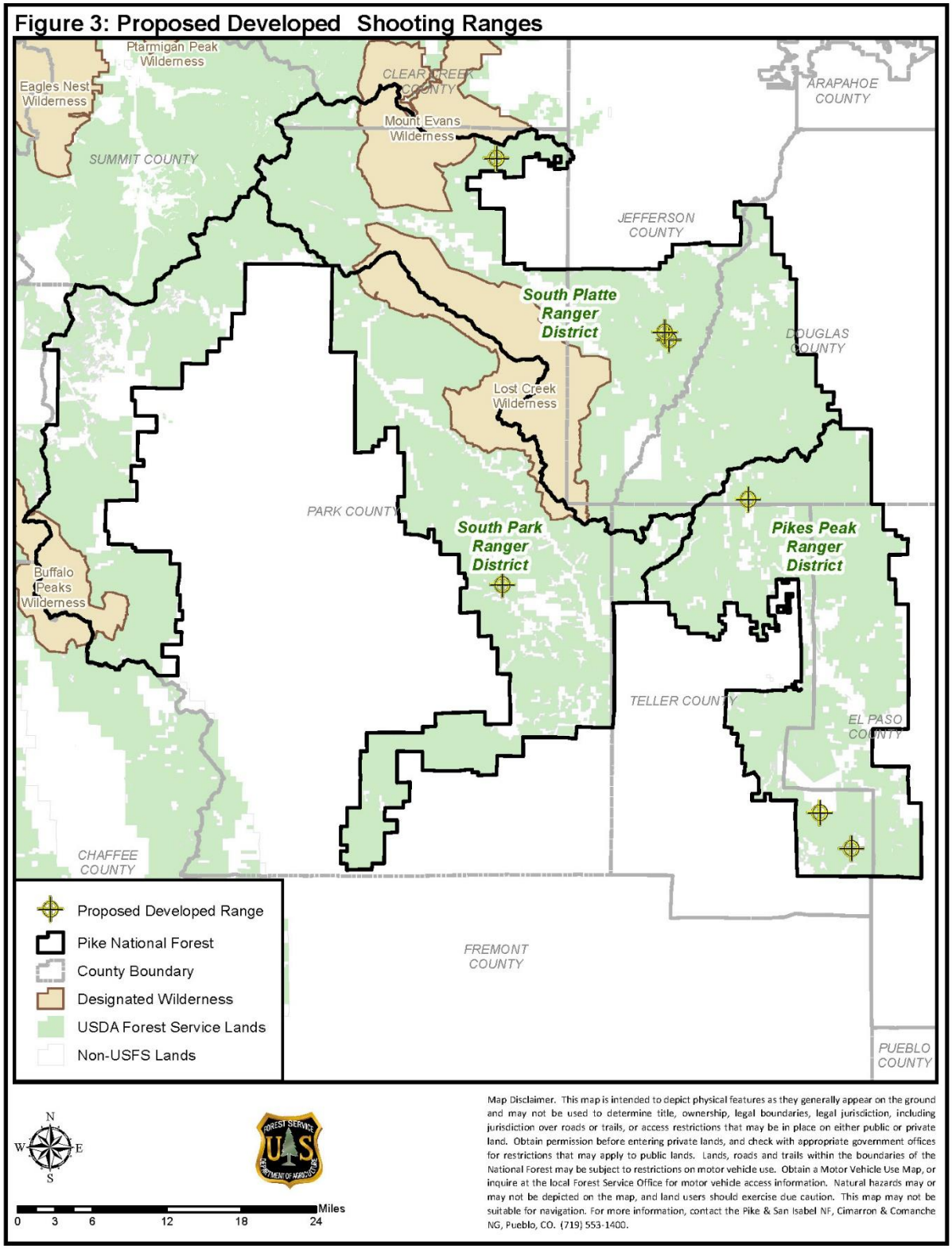
Figure 3: Proposed Developed Shooting Ranges
Ptarmigan Peak Wilderness
Eagles Nest Wilderness
SUMMIT COUNTY
CLEAR CREEK COUNTY
Mount Evans Wilderness
ARAPAHOE COUNTY
JEFFERSON COUNTY
South Platte Ranger District
DOUGLAS COUNTY
Lost Creek Wilderness
PARK COUNTY
South Park Ranger District
Pikes Peak Ranger District
Buffalo Peaks Wilderness
TELLER COUNTY
EL PASO COUNTY
CHAFFEE COUNTY
FREMONT COUNTY
PUEBLO COUNTY
Proposed Developed Range
Pike National Forest
County Boundary
Designated Wilderness
USDA Forest Service Lands
Non-USFS Lands
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CLOSING AREAS TO TARGET SHOOTING

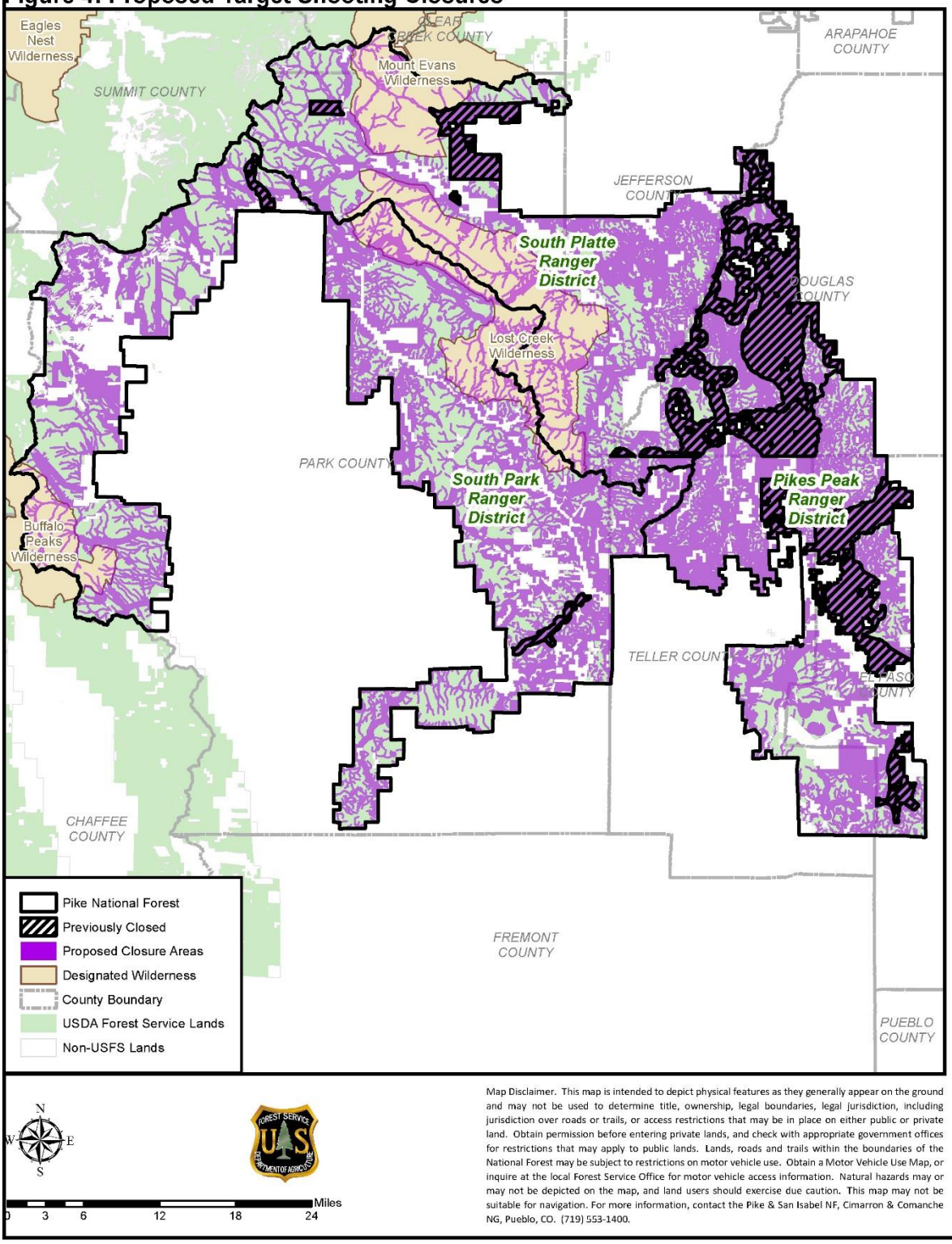
Areas to be closed to dispersed target shooting were identified using these criteria:

- Those areas that were previously determined to be inappropriate for dispersed target shooting due to public safety concerns and have been closed under emergency orders (e.g. the Urban Front Country orders) (referred to as areas "Previously Closed")
- Areas that have been analyzed for closure to target shooting in other NEPA projects but have not been implemented yet (e.g. the Bear Creek Watershed Restoration Project)
- Those areas deemed to be inappropriate for dispersed target shooting based on an interdisciplinary examination of risks to people, property, natural resources, or infrastructure through a mapping analysis. Specifically, an area was determined to be inappropriate for target shooting if it is:
    - Within the Manitou Experimental Forest
    - Within any research natural or scenic areas
    - <1 mile from the boundary of a city or town
    - <1/2 mile from a single home, subdivision, or unincorporated town
    - <1/4 mile from any recreation site (trailhead, camp site [developed or designated dispersed], picnic area, etc.)
    - <1/4 mile from a communication or electrical transmission tower or other utilities
    - <1/4 mile from a lake or reservoir
    - <150 yards from perennial or intermittent streams
    - <1/4 mile from highly visible trails, and <150 yards from any other National Forest System Trail (motorized or nonmotorized)
    - <150 yards from any National Forest System Road (ML1 or ML2)
    - <1/4 mile from any National Forest System Road (ML3, ML4, or ML5)
    - <= 5 acres in area (smaller areas are not viable for management of dispersed shooting activities)

National Forest System Roads and Trails are identified by their records in INFRA database. As new routes are entered into the database or as routes are updated the model will be reassessed, potentially resulting in additional closure areas (such as if a new trail is installed) or adjustments to closure areas (if a road alignment is corrected).

Timing of area closures would be staggered to address greatest risks first, accommodate the development of shooting ranges, and implement appropriate closure notifications and signage. For example, those areas that were determined to be inappropriate for dispersed target shooting and closed under pervious emergency orders would be closed first. Areas deemed inappropriate within some radius (to be determined) of an approved developed shooting range would be closed after the developed site was constructed and opened to the public. Areas where target shooting is determined

Figure 4: Proposed Target Shooting Closures



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to present enough risk to the public, infrastructure, or private property, or where resource damage has been documented, may be closed to dispersed target shooting prior to the opening of any developed shooting range. Maps of the areas proposed to be closed under each of the three criteria are provided in Figure 4.

The John D. Dingell, Jr. Conservation, Management, and Recreation Act and the President signed it into law (Public Law 116-9), Title IV – Sportsmen's Access and Related Matters, Subtitle B – Sportsmen's Access to Federal Land, Section 4103 addresses closure of Federal lands to hunting, fishing, and recreational shooting. The Forest will comply with the Dingell Act prior to implementing any closures identified in the decision based on this environmental analysis. The public notice requirements of the Dingell Act may occur concurrently with the objection process as allowed by agency policy.

CONDITIONS-BASED ADAPTIVE MANAGEMENT OF TARGET SHOOTING

A conditions-based management approach will be used to determine when and where to manage target shooting activities. When applied over the entire Pike National Forest, the proposed action can be considered an adaptive management strategy [36 CFR 220.5(e)(2) and §220.7(b)(2)(iv)]. Adaptive management is conducted by identifying a suite of potential management activities, describing the expected outcomes (desired conditions and potential effects of the actions), and defining the monitoring requirements to determine if the desired conditions are being reached. By identifying a maximum set of management tools but only implementing the minimum actions required for a given condition, the proposed action would provide an efficient and flexible set of management tools to address the project needs.

Areas open to dispersed target shooting should maintain natural landscape characteristics. In general, dispersed shooting areas should reflect the desired conditions that:

- Vegetation is intact (no shot trees),
- Soil is not compacted (such as due to vehicles parking in unauthorized areas),
- The area is trash-free (including targets, shell casings, or pieces of clay pigeons),
- Streams and ground water are pollutant-free and sustain stream health,
- Human-caused wildfires are rare (or at least no more frequent than in other areas of the forest),
- User conflicts do not occur frequently (target shooters are not disturbed by OHVs, and trail users do not encounter stray bullets),
- There is low risk to public safety (no reports of close calls or injuries).

In order to ensure that areas designated as open to dispersed target shooting maintain these desired conditions, specific indicator measures will be monitored as listed in Table 2. If monitoring indicates that an area is no longer in the desired condition, regardless of whether the effects are intentional or unintentional outcomes of recreation activities, additional management actions will be implemented as described in Table 2.

Table 2. Desired conditions and potential indicator measures for dispersed target shooting on the Pike National Forest. If an indicator measure is found to meet or exceed the Management Action Point, any of the Management Actions may be applied to move the indicator toward the desired condition. In general, the minimum management action will be used first, followed by more intensive management activities if necessary.

Desired Condition	Indicator Measure	Management Action Point	Management Actions
Low risk to public safety	-"Close call" reports (feeling unsafe because of unsafe target shooting practices) to USFS and law enforcement offices by forest users -Close calls reported by employees -Density of routes (roads or trails) in an area that would increase potential user conflicts	-One or more public complaints of a close call within a dispersed shooting site -One or more employee reports of a close call within a dispersed shooting site -Incident raised by other law enforcement or fire management agencies or partners -Report of any casualty or risk to life, or damage to property	– Install educational tools such as signage; update web guidance for areas – Increase patrols of the area by law enforcement or forest protection officers – Define and restrict parking (such as boundary fencing) – Implement daily or seasonal area closure(s) – Close the area to dispersed target shooting

Desired Condition	Indicator Measure	Management Action Point	Management Actions
Adherence to established USFS regulations for target shooting [36 CFR 261.10(d)]	-Discharging a firearm or any other implement capable of taking human life, causing injury, or damaging property as follows: (1) In or within 150 yards of a residence, building, campsite, developed recreation site or occupied area, or (2) Across or on a National Forest System road or a body of water adjacent thereto, or in any manner or place whereby any person or property is exposed to injury or damage as a result in such discharge. (3) Into or within any cave.	-Citation issued for violation of 36 CFR 261.10(d) -Report from other law enforcement officer of violation(s) of these regulations	– Install educational tools such as signage; update web guidance for areas – Increase patrols of the area by law enforcement or forest protection officers – Implement daily or seasonal area closure(s) – Close the area to dispersed target shooting
Temporary closures to dispersed shooting	-Fire restrictions criteria -Site administration, such as maintenance, and trash removal -Special use or recreation event	-Dispersed shooting area entering fire restrictions -Required road maintenance or management activities -Trash on site -Event located in a shooting area (e.g. Christmas tree permit sales)	– Implement a temporary ban of dispersed target shooting

Desired Condition	Indicator Measure	Management Action Point	Management Actions
Low occurrence of shooting-related wildfire	-Known or suspected wildfire starts due to shooting activity	-One or more wildfire starts determined or deemed likely to be caused by shooting activity (such as evidence of explosive materials, improvised targets, or other unsafe practices) -High fuel loading and fire risk conditions in the shooting area, increasing risk of wildfire	– Increase patrols of the area by law enforcement or forest protection officers – Install fire control lines around the dispersed shooting area – Develop prescribed burn unit(s) around the dispersed shooting area – Close the area to dispersed target shooting
Low levels of user conflict	-Structures on inholdings or properties adjacent to popular dispersed shooting areas -Frequency of conflict between dispersed shooting activities and designated and known dispersed campsites -Frequency of conflict between shooting activities and active mining claims -Frequent conflict between recreation uses (e.g. OHVs disturbing shooters, trail users adjacent to shooting areas)	-New construction of residence(s) on private land within ½ mile of NFS area open to dispersed target shooting -One or more complaints of a close call coming from a dispersed shooting site -Incident arising from a dispersed shooting site as reported by other law enforcement or fire management agencies or partners -Casualty or risk to life, or damage to property arising from dispersed shooting	– Install educational tools such as signage; update web guidance for areas – Increase patrols of the area by law enforcement or forest protection officers – Implement daily or seasonal area closure(s) – Close the area to certain types of shooting (e.g. clay pigeons) – Close the area to dispersed target shooting

Desired Condition	Indicator Measure	Management Action Point	Management Actions
Area is sufficient to accommodate dispersed target shooting	Area being used for dispersed shooting is sufficient to allow dispersed shooting to occur in a safe manner with a minimum of conflicts	-Area must be sufficient to allow dispersed target shooting (e.g. appropriate topography, size, shape)	– Close the area to dispersed target shooting
Terrain appropriate to provide earthen backstops and safe shooting area	-Dispersed shooting areas provide earthen backstops	-Active dispersed shooting area lacks earthen backstops (e.g. ridgetop, drainage, flats, rock outcrop)	– Install educational tools such as signage; update web guidance for areas – Increase patrols of the area by law enforcement or forest protection officers – Close the area to dispersed target shooting
No damage to infrastructure from dispersed shooting or related activities	-Shooting damage to signs, fences, other structures (outhouses, stock tanks, etc.) -Ability to access and maintain infrastructure	-Recurrent shooting damage to signs on a road or trail segment -Segment of fence made unserviceable (shot out) -Damage to recreation, county, utility, or private infrastructure -Utility or other public infrastructure made inaccessible due to safety concerns from shooting activities, illegal parking by public engaging in target shooting, or similar -Stock tank leaking due to bullet holes	– Install educational tools such as signage; update web guidance for areas – Increase patrols of the area by law enforcement or forest protection officers – Close the area to certain types of shooting (e.g. clay pigeons) – Implement daily or seasonal area closure(s) – Close the area to dispersed target shooting

Desired Condition	Indicator Measure	Management Action Point	Management Actions
Clean sites (a trash-free recreation experience)	-Trash or rubbish at a site	-Shooting-related trash left on site (e.g. brass, improvised targets, manufactured targets, large pieces of clay pigeons, or any other items which should be collected and removed) -Human waste	– Install educational tools such as signage; update web guidance for areas – Increase patrols of the area by law enforcement or forest protection officers – Temporarily close site for cleaning and maintenance – Close the area to certain types of shooting (e.g. clay pigeons) – Implement daily or seasonal area closure(s) – Close the area to dispersed target shooting
Healthy forest and riparian vegetation and wildlife habitat	-Shooting damage to trees, shrubs, and other natural features -Damaged wildlife habitat -Degraded riparian vegetation and habitat	-Undesirable change in wildlife occupancy, behavior, movement, or range use -Disturbance, harassment, injury, or death to wildlife species -Harm of any federally listed species or loss of habitat function or effectiveness -Removal or degradation of essential habitat elements -Introduction or expansion of noxious weed infestations -Damage to riparian vegetation or habitat	– Install educational tools such as signage; update web guidance for areas – Increase patrols of the area by law enforcement or forest protection officers – Implement daily or seasonal area closure(s) – Implement a temporary or permanent area closure (either for dispersed target shooting or to all entry)

Desired Condition	Indicator Measure	Management Action Point	Management Actions
Sustainability of stable soils that are vegetated, not compacted or eroding	-Erosion, soil compaction, and loss of stable soil and vegetated ground cover	-An increase in bare ground and reduction of stable soils causing soil compaction or erosion. Erosion may include but is not limited to: rilling, gullying, sediment transport to streams, and streambank erosion	– Install educational tools such as signage; update web guidance for areas – Increase patrols of the area by law enforcement or forest protection officers – Define and restrict parking or otherwise limit vehicle access – Implement daily or seasonal area closure(s) – Close the area to dispersed target shooting
Sustainability of stream health and water quality, including surface, seasonal draws, and ground water	-Pollution sources including but not limited to: sediment, hazardous materials, chemical and fuel spills, trash, human waste, manufactured or improvised targets, ammunition, lead shot, and vehicular traffic -Damage to stream areas from shooting access (motorized or nonmotorized)	-Any pollution (chemical or residual) causing negative effects to water quality or stream health -Measured changes in water chemistry	– Install educational tools such as signage; update web guidance for areas – Increase patrols of the area by law enforcement or forest protection officers – Define and restrict parking or otherwise limit vehicle access – Implement daily or seasonal area closure(s) – Close the area to dispersed target shooting
Maintenance of wilderness characteristics	Per the Wilderness Act (1964): -Untrammeled (free and unrestricted) -Natural -Undeveloped -Solitude or primitive and unconfined recreation	-Standard wilderness monitoring identifies at least one wilderness characteristic is reduced due to shooting activity	– Close the area to dispersed target shooting

The development and management of shooting ranges would also follow an adaptive management framework. For example, the site may not be developed to full capacity before the range is opened to the public but would be expanded if use levels warrant. The desired condition for designated sites includes:

- Visitors park in designated areas only,
- Areas are free of trash (e.g. manufactured or improvised targets, shell casings, other waste),
- Only firearms appropriate for the designated areas are used, and shooting only occurs in designated lanes,
- The frequency of human-caused wildfires is the same as other areas of the forest,
- Disturbance to neighboring landowners is within tolerance levels,
- The number of shooting lanes is sufficient to accommodate average user numbers and stay durations, within the capacity of the designated site.

In order to ensure that areas identified for shooting ranges maintain these desired conditions, specific indicator measures will be monitored as listed in Table 3. If monitoring indicates that an area is no longer in the desired condition, regardless of whether the effects are intentional or unintentional outcomes of recreation activities, additional management actions will be implemented as described in Table 3.

In addition to this adaptive management framework, each shooting range would be managed under site-specific operating plans. These plans would address the fine details of site management, such as safety plans, communication protocols, and site capacity. The adaptive management framework described here will not apply to any existing shooting range or facility, such as those operated under special use permit on National Forest System land.

Table 3. Desired conditions and potential monitoring indicators for developed shooting ranges on the Pike National Forest. If an indicator measure is found to meet or exceed the Management Action Point, any of the Management Actions may be applied to move the indicator toward the desired condition. In general, the minimum management action will be used first, followed by more intensive management activities if necessary.

Desired Condition	Indicator Measure	Management Trigger	Management Action
Low risk to public safety	-Weapons used are appropriate to the design of the range (or portion of range) -Shooting at night -Use of drugs or alcohol at shooting range	-Citation issued for use of inappropriate weapon, or documented use of such (waste left at site) -Reports of shooting at unsafe hours (after dark) -Citation for or evidence of use of drugs or alcohol at shooting range	– Install educational tools such as signage; update web guidance for the site – Increase patrols of the area by law enforcement or forest protection officers – Implement parking restrictions, area closures (to restrict unauthorized access), or daily closures (after dark) – Require users to acquire a free permit from a USFS office – Convert the site to a supervised facility, adding a fee system and concessionaire if necessary

Desired Condition	Indicator Measure	Management Trigger	Management Action
Adherence to established USFS regulations for target shooting [36 CFR 261.10(d)]	-Discharging a firearm or any other implement capable of taking human life, causing injury, or damaging property as follows: (1) In or within 150 yards of a residence, building, campsite, developed recreation site or occupied area, or (2) Across or on a National Forest System road or a body of water adjacent thereto, or in any manner or place whereby any person or property is exposed to injury or damage as a result in such discharge. (3) Into or within any cave.	-Citation issued for violation of 36 CFR 261.10(d) -Report from other law enforcement officer of violation(s) of these regulations	– Install educational tools such as signage; update web guidance for the site – Increase patrols of the area by law enforcement or forest protection officers – Require users to acquire a free permit from a USFS office – Convert the site to a supervised facility, adding a fee system and concessionaire if necessary
Low occurrence of shooting-related wildfire	-Frequency of fire suppression efforts at developed shooting range	-Frequency of fire suppression efforts greater than the average for other popular recreation sites (e.g. picnic area) -Wildfire determined to be or deemed likely to be caused by unauthorized shooting activities (such as evidence of explosive materials, improvised targets, or shooting outside of designated areas)	– Install educational tools such as signage; update web guidance for the site – Increase patrols of the area by law enforcement or forest protection officers – Require users to acquire a free permit from a USFS office – Convert the site to a supervised facility, adding a fee system and concessionaire if necessary

Desired Condition	Indicator Measure	Management Trigger	Management Action
Low levels of user conflict	-Trail density in the area -Distance to developed recreation facilities -Changes in recreation uses or facilities within the area	-Highly used system trails in the area of a developed shooting range are impacted -Trails are located within the surface danger zone of shooting lanes -Developed shooting range is less than ½ mile from any developed recreation facility	– Design facilities and manage the area (including rerouting trails) so that no trails occur within the surface danger zone – Design facilities and manage the area to minimize potential user conflict on site – Design facilities and manage the area for noise abatement – Install educational tools such as signage; update web guidance for the site – Increase patrols of the area by law enforcement or forest protection officers – Implement parking restrictions, area closures (to restrict unauthorized access), or daily closures (after dark) – Require users to acquire a free permit from a USFS office – Convert the site to a supervised facility, adding a fee system and concessionaire if necessary

Desired Condition	Indicator Measure	Management Trigger	Management Action
Range size and capacity is appropriate for average number of users	-Overflow parking does not impede traffic or impede emergency response -Use is restricted to designated shooting lanes (users do not conduct dispersed shooting within the range area) -Lack of visitor conflict regarding site availability or use	-Citations for illegal parking within or next to designated area -Citations for (or reports of or evidence of) shooting activities outside of shooting lanes or zones within designated area -Reports of user conflicts regarding site availability, rule enforcement, or shared facilities	– Install educational tools such as signage; update web guidance for the site – Implement parking restrictions, area closures (to restrict unauthorized access), or daily closures (after dark) – Increase patrols of the area by law enforcement or forest protection officers – Expand the area designated for target shooting to reflect use patterns (up to the maximum area described in site designs) – Require users to acquire a free permit from a USFS office – Convert the site to a supervised facility, adding a fee system and concessionaire if necessary

Desired Condition	Indicator Measure	Management Trigger	Management Action
Reduced conflict with adjacent private property	-Low noise impacts to adjacent properties -Low disturbance from user activities (including shooting) at night -"Close call" reports (feeling unsafe because of unsafe target shooting practices) to USFS and law enforcement offices by adjacent landowners	-Repeated complaints of noise disturbance from adjacent private property -Incidents (noise or safety) raised by other law enforcement or fire management agencies or partners -Report of any casualty or risk to life, or damage to property	– Design facilities and manage the area for noise abatement – Install educational tools such as signage; update web guidance for the site – Implement parking restrictions, area closures (to restrict unauthorized access), or daily closures (after dark) – Require users to acquire a free permit from a USFS office – Convert the site to a supervised facility, adding a fee system and concessionaire if necessary
Lack of trash or abandoned materials	-Amount of trash, especially shooting waste (ammunition or improvised targets) at a site	-Visible evidence of measurable shooting-related trash left on site (e.g. brass, improvised targets, shot cases, manufactured targets including clay), or outside of dumpsters if available -Human waste	– Install educational tools such as signage; update web guidance for the site – Install waste collection facilities (dumpsters), toilets, or similar – Increase patrols of the area by law enforcement or forest protection officers – Require users to acquire a free permit from a USFS office – Convert the site to a supervised facility, adding a fee system and concessionaire if necessary
Healthy forest vegetation and low	-Shooting confined to the lanes, galleries, and site boundaries	-Damage to wildlife habitat located outside of the range boundaries	– Design facilities and manage the area to discourage or prevent user interaction with

Desired Condition	Indicator Measure	Management Trigger	Management Action
conflicts with wildlife or wildlife habitat	-Shooting damage to trees, shrubs, and other natural features near the site	-Undesirable change in wildlife occupancy, behavior, movement, or range use near the shooting site -Disturbance, harassment, injury, or death of wildlife species -Introduction of new noxious weeds or expansion of noxious weed infestations	sensitive wildlife habitat components – Install educational tools such as signage; update web guidance for the site – Increase patrols of the area by law enforcement or forest protection officers – Implement parking restrictions, area closures (to restrict unauthorized access), or daily closures (after dark) – Implement temporary or seasonal site closure(s) – Require users to acquire a free permit from a USFS office – Convert the site to a supervised facility, adding a fee system and concessionaire if necessary – Find an alternate location for the designated site when unresolvable conflicts occur with wildlife or wildlife habitat

Desired Condition	Indicator Measure	Management Trigger	Management Action
Sustainability of stable soils that are vegetated, not compacted or eroding	-Erosion, soil compaction, and loss of stable soil and vegetated ground cover	-An increase in bare ground and reduction of stable soils causing soil compaction or erosion. Erosion may include but is not limited to: rilling, gullying, sediment transport to streams, and streambank erosion	– Design facilities and manage the area to discourage or prevent user interaction with sensitive soil components – Install educational tools such as signage; update web guidance for the site – Increase patrols of the area by law enforcement or forest protection officers – Implement parking restrictions, area closures (to restrict unauthorized access), or daily closures (after dark) – Implement temporary or seasonal site closure(s) – Require users to acquire a free permit from a USFS office – Convert the site to a supervised facility, adding a fee system and concessionaire if necessary

Desired Condition	Indicator Measure	Management Trigger	Management Action
Sustainability of stream health and water quality, including surface, seasonal draws, and ground water	-Pollution sources including but not limited to: sediment, hazardous materials, chemical and fuel spills, trash, human waste, ammunition, lead shot, and modes of access such as vehicles	-Any pollution causing negative effects to water quality or stream health	– Design facilities and manage the area to discourage or prevent user interaction with surface and ground water – Install educational tools such as signage; update web guidance for the site – Increase patrols of the area by law enforcement or forest protection officers – Implement parking restrictions, area closures (to restrict unauthorized access), or daily closures (after dark) – Implement temporary or seasonal site closure(s) – Require users to acquire a free permit from a USFS office – Convert the site to a supervised facility, adding a fee system and concessionaire if necessary

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