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Service

**Southwestern
Region**

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Environmental Assessment for Cross V Allotment

**Reserve Ranger District, Gila
National Forest**

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Chapter 1 – Purpose and Need

Background

The Cross V Allotment includes lands identified in the Gila National Forest Plan (GNFP) as suitable for grazing. Where consistent with other multiple use goals and objectives, there is congressional intent to allow grazing on suitable lands (Multiple Use and Sustained Yield Act of 1960, Wilderness Act of 1964, Forest and Rangeland Renewable Resources Planning Act of 1974, Federal Land Management and Policy Act of 1976, and National Forest Management Act of 1976). Where consistent with the goals, objectives, standards and guidelines of plans, it is Forest Service policy to make forage from lands suitable for grazing available to qualified livestock operators (FSM 2202.1, FSM 2203.1, and 36 CFR 222.2 (c)).

Federal actions such as the authorization of grazing and approval of allotment management plans must be analyzed to determine potential environmental consequences (National Environmental Policy Act of 1969 [NEPA] and Rescission Act of 1995 [P.L.104-19]). The Forest Service is preparing this environmental assessment (EA) in compliance with these laws and other relevant Federal and state laws and regulations. This EA will disclose the direct, indirect, and cumulative environmental impacts that would result from the proposed action and alternatives.

Allotment Description

The Cross V Allotment contains approximately 13,987 acres. The Cross V Allotment extends from the northern part of Reserve, between Reserve and Apache Creek, New Mexico in Catron County. The legal description is T5S, R19W, Sections 23-26 and 35-36, T5S, R18W, Sections 19-21 and 27-36, T6S, R19W, Sections 1-2, and T6S, R18W, Sections 1-6 and 8-9 (Maps 1 and 2, Appendix A).

Principal landforms on the Cross V Allotment include: Largo, Devil, Lost Spring, Quaking Aspen, and East Draw Canyons. The pastures include: Devils Canyon and South, which are the larger pastures of this allotment. Two smaller pastures for the allotment include Outlaw and Cottonwood.

Climate

The precipitation pattern in the Allotment area is typically bimodal; the principal precipitation period occurs from late June through September, with the second mode occurring from November or December through March. Precipitation from June through September is dominated by convective, high intensity storms; these storms are typically short in duration. Storms which are longer in duration, but still high in intensity, begin to occur in September, as moisture associated with storms in the Gulf of Mexico and the Pacific Ocean begin. However, these storms do not occur as regularly as the short duration storms of the June through September period. The second elevated period of precipitation occurs mainly as snow at the higher elevations. Although snow may fall continuously the period during which snow melt occurs is typically a much shorter period of time (PR, #31).

Precipitation records at the Reserve Ranger Station from 1985 through 2007 (23 years) have shown annual precipitation extremes have been as low as 9 inches, and as high as 22 inches annually. The summer growing season (June – September) and winter/spring (October – May)

averaged about the same at 7.7 inches. The wettest summer was in 2006 with 15 inches (PR, #27).

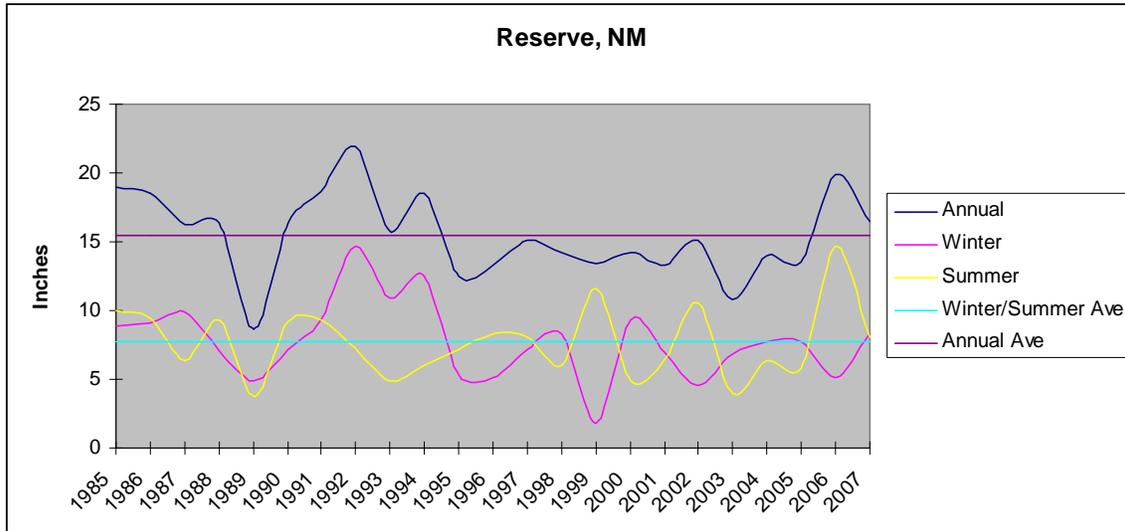


Figure 1. Precipitation Records, 1985-2007, Reserve, NM.

Historical and Current Grazing Management

In 1980 the Cross V, Piney Park, and Wilson Canyon pastures were separated from the Toriette Allotment and combined with the Birmingham Allotment which was administered by the Luna Ranger District to become the Cross V Allotment on the Reserve Ranger District. In 1984 the current Cross V Allotment was formed by separating the Cross V, Outlaw and Cottonwood pastures from the then existing larger Cross V Allotment. The balance of the old Cross V allotment was made into the Apache Canyon Allotment (PR, #27).

The current term grazing permit authorizes 50 cattle, cow/calf, yearlong (PR, #9). Since 1995, the preference for this allotment has changed hands four times. Total non-use was taken 7 out of the last 13 years and the allotment was stocked lightly with variable livestock numbers in other years. In 2006 livestock from another allotment used forage within the Cross V Allotment. Only in one year (2001) did stocking equal the current authorized numbers (Table 1) (PR, #27).

Providing rest for the vegetation burned in the Wilson Fire has prevented the current permittee from stocking full numbers because of the unavailability of the South and Devils Canyon Pastures. South Pasture was used in 2007 and Devils Canyon Pasture was first used in 2008 following range assessments (PR, #27).

Table 1. Actual stocking levels, Cross V Allotment.

Year	Stocking	Months (AMs) ¹
1995	Non-use	
1996	50 head	Part of the year (unknown AMs)
1997	Non-use	
1998	Non-use	

Year	Stocking	Months (AMs) ¹
1999	15 head	12 (180 AMs)
2000	25-33	12 (unknown AMs)
2001	50	12 (600 AMs)
2002	Non-use	
2003	Non-use	
2004	Non-use	
2005	Non-use	
2006	14-88 head	Part of the year (235 AMs)
2007	15-30	12 (unknown AMs)

¹AM = Animal-Month defined as a month's tenure upon range by one animal. When AMs are unknown the exact number of months per animal is not known. For example, in 2007, 15 head were on the Forest for an unknown number of months and then 15 more head were added for the remainder of the year for a total of 30 head.

Existing Condition

Vegetative Condition

In 2006, a large fire (Wilson WFU) burned 5,839 acres covering most of Devils Canyon Pasture and the north and northwest side of South Pasture (See Map 2, Appendix A). Although groundcover amounts were variable, slope erosion appeared to be minimal as no open "sores" of eroding hillslope, rills, or gullies in the slopes were observed in 2007 (PR, #31). Some parts of this fire burned hotter than other spots; therefore recovery time is longer for those areas. As of 2008 cattle are now utilizing parts of these pastures.

Vegetative condition data¹ was collected at both permanent cluster sites (3 – 100 foot transects) and at pace transects (single 100 foot transect) placed in same area as previous sampling. Vegetation and Watershed condition ratings grouped by pasture are displayed for 1966 and 2007 in Table 2 for comparison (see Map 2, Appendix A) (PR, #27).

Table 2. Vegetative and Watershed Condition Ratings for 1966 and 2007.

Transects	Pasture	Vegetation (score) ¹		Watershed (score) ¹	
		1966	2007	1966	2007
C12	Cottonwood	N/A	Fair (41)	Poor (39)	Good (80)
P11 (C2)	Devils Canyon	Poor (21)	Fair (51)	Poor (35)	Good (78)
C5	Devils Canyon	Poor (31)	Poor (36)	Fair (53)	Good (65)
C7	Devils Canyon	Poor (26)	Poor (31)	Poor (39)	Fair (52)
P1	Devils Canyon	Poor (40)	Good (68)	Good (76)	Good (70)
P2	Devils Canyon	Poor (22)	Very Poor (17)	Poor (33)	Good (61)

¹ Data collection protocol described in FSH 2209.21, Range Analysis and Management Handbook (discontinued).

Transects	Pasture	Vegetation (score) ¹		Watershed (score) ¹	
		1966	2007	1966	2007
P4	Devils Canyon	Very Poor (20)	Fair (44)	Poor (38)	Fair (53)
P5	Devils Canyon	Poor (36)	Fair (59)	Fair (46)	Fair (54)
P9	Devils Canyon	Very Poor (14)	Very Poor (19)	Fair (51)	Good (80)
C8	Outlaw	Poor (25)	Poor (36)	Fair (46)	Good (65)
C9	Outlaw	Very Poor (13)	Very Poor (20)	Fair (59)	Good (63)
P6	Outlaw	Poor (25)	Fair (52)	Poor (40)	Fair (71)
C4	South	Poor (28)	Poor (31)	Good (68)	Fair (55)
P7	South	Poor (28)	Fair (59)	Fair (45)	Fair (60)
P8	South	Poor (26)	Fair (45)	Poor (30)	Fair (56)
P10 (C3)	South	Very Poor (13)	Poor (37)	Fair (42)	Excellent (82)

¹Vegetation and watershed ratings are based on the following score categories: Very Poor, 0-20; Poor, 21-40; Fair, 41-60; Good, 61-80; and Excellent, 81-100.

Using the coarse filter of vegetative condition classes (e.g. poor, fair, etc) conditions are mixed with some areas of a pasture showing no improvement in vegetative condition classes while other areas have shown improvement. It is possible to have significant improvement without changing a range condition class as shown by vegetative condition scores in Table 2 and the combined condition data shown in Figure 2. Even considering the effects of the Wilson Fire that burned in 2006, collectively, across the allotment, there were significant increases in numbers of plants from 1996 to 2007 when you examine decrease², increase³, invader⁴, and all forage plants. Encroachment of pinyon, juniper, and ponderosa pine tree are limiting recovery (see Fig. 2) (PR, #27).

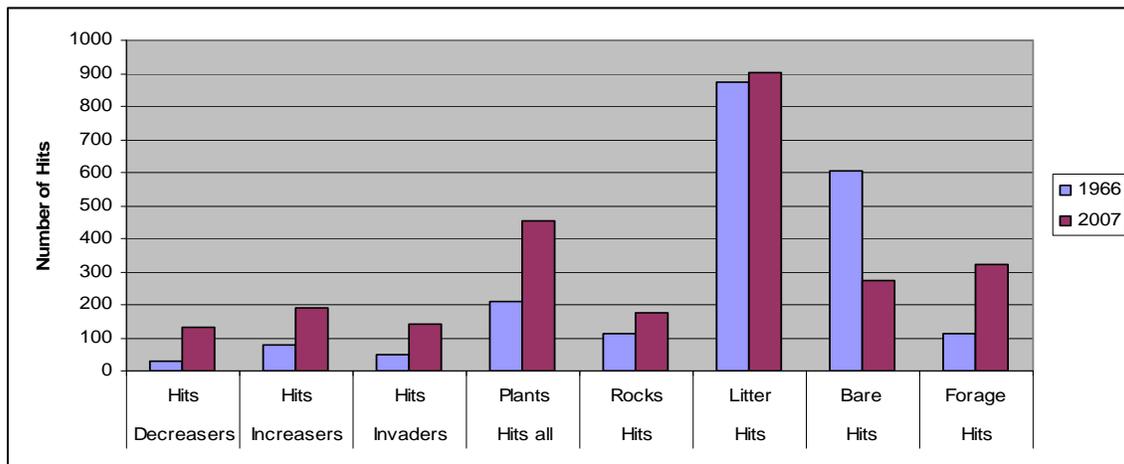


Figure 2. Ecological characteristics of range and soil conditions, Cross V Allotment.

² Decreasers – Those plant species favored by livestock that decrease as a result of specific biotic influence (such as overgrazing).

³ Increaseers – Those plant species that increase as a result of specific biotic influence (such as selective grazing).

⁴ Invaders – Plant species that are absent in undisturbed areas that will increase following disturbance. Some forage plants (e.g., blue gramma) will be considered invaders once they reach a certain percentage of the composition.

Vegetative Condition by Pasture

Cottonwood Pasture: This is a small pasture of only 701 acres with a mix of open grassland, ponderosa pine, and pinyon-juniper. This pasture is in satisfactory condition over most of the pasture with the exception of the very southwest corner where water is available nearby on private land (ranch headquarters). There is no natural water or stock tanks within the pasture. To achieve adequate dispersion of livestock, water has to be provided through hauling.

Outlaw Pasture: This pasture is adjacent to Cottonwood. The east side which is close to the headquarters has gentle slopes with open grassland. The middle of the pasture is pinyon-juniper with 11 to 30 percent slopes. The west side is Largo Canyon with an open bottom with gentle slopes. Water is available during most years in Largo Canyon. The only other dependable water is on the private land which is the ranch headquarters. Because of the proximity to private land with gentle to low slopes and the water availability in Largo Canyon this pasture has received heavy historical use leading to poor range conditions on both the east and west sides with the middle being in satisfactory condition.

South Pasture: This is a large pasture totaling approximately 4,727 acres with more broken terrain. FSR 49 intersects the pasture from north to south. The area east of the road is mostly satisfactory with the area to the west being mostly in poor condition. Vegetative scores improved but not enough to change the condition class (Fig 3). In 2006, the Wilson Fire burned approximately 965 acres within the South Pasture along the boundary between South and Devils Canyon Pastures. Transect C4 was within the burned area and the poor vegetative condition rating is partly due to not enough time had occurred to recover from the fire (Fig 4). Over half of this pasture (64%) has slopes less than 30 percent. Approximately 19 percent has slopes 31-40 percent with 17 percent being in steep slopes greater than 40 percent. The pasture has five stock tanks or spring developments with each having waterlots⁵. The amount and distribution of waters is thought to be adequate.

⁵ A waterlot is defined as a stock tank or spring with a fence around it where access can be controlled by opening or closing a gate. This is an efficient way of encouraging livestock to disperse or move away from an area once forage utilization has been reached.



Figure 3. P10 (C3), Range conditions improved from 1966 but improvement is being limited by the encroachment of pinyon and juniper trees.



Figure 4 C4 located along boundary with Devils Canyon Pasture that was within the 2006 Wilson Fire.

Devils Canyon: This is a large pasture totaling approximately 7,114 acres at a higher elevation with broken terrain. Over 54 percent of the area has slopes less than 30 percent, 20 percent is in 31-40 percent slope, and 27 percent is in steep slopes greater than 40 percent. Water supplied by stock tanks are thought to be adequate however there are no associated waterlots.

The Wilson Fire burned 4,874 acres (68%) of the Devils Canyon Pasture in 2006. Transects C5, C7, P2, P5, P9, P11 read in 2007 were all within the burned acres. Burn intensity varied from low to high and for areas with high fire intensities, poor condition ratings are partly due to not enough time to recover from the fire (Fig.5 and 6). The area around P11 (C2) and P5 plus the area on the west side outside of the burn is in satisfactory condition.



Figure 5. C7 Northeast part of Devils Canyon Pasture within the 2006 Wilson Fire.



Figure 6. P2 Located on southwestern part of Devils Canyon within the 2006 Wilson Fire.

Watershed Condition

The Cross V allotment is distributed across the Negrito Creek and Upper San Francisco River 5th level watersheds. Both 5th level watersheds involved with the Cross V allotment are in satisfactory condition. A total of 12 percent of the Allotment is in the Negrito Creek Watershed and 88 percent is in the Upper San Francisco Watershed. The majority of the Upper San Francisco Watershed is located on the Apache Sitgraves National Forest (PR, #31).

Conditions in the Allotment were evaluated once in 1996 and again in 2007. All 16 key areas indicated that watershed conditions throughout the allotment are in satisfactory condition (Fair to Excellent) with stable to upward trends (Table 2). When ground cover is examined collectively there was a significant increase in the number of plants from 1996 to 2007 and there was a significant decrease in the amount of bare ground (Fig. 1) (PR, #27).

Riparian

There are no perennial streams on the allotment. Riparian type vegetation is noted in several places within the allotment however no hydric soils were noted. Streams were observed to be ephemeral or intermittent. In some areas bedrock control of the drainages was noted as well as evidence of bedload transport. Stream channels within the Allotment appeared to generally be in properly functioning condition (PFC). Channels appeared to be incised naturally for the most part, flashy in their flow regime and transporting high sediment loads. Little to no degradation of stream banks was observed due to grazing. Trailing and trampling due to cattle was minor. Trailing and trampling in valley bottoms, related to native elk populations, was observed in various places through out the allotment (PR, #31).

Largo Canyon was the only drainage with potential for riparian which had segments surveyed using PFC protocol. Largo Canyon starts in the adjacent allotment (Toriette Allotment) to the northwest, runs completely through the Cross V Allotment and then south through the Black Bob Allotment before running into the San Francisco River (see Map 2, Appendix). The upper section within the Devils Canyon Pasture was completely within the Wilson Fire that burned in June 2006. Even though it lacked riparian vegetation age and size class diversity (probably due to the fire) the survey found that the stream and channel were properly functioning. The lower section that runs through Outlaw Pasture was Functioning at Risk (FAR) with undetermined trend primarily due to the influence of FS 4161A which runs along or crosses the stream for the entire length until the stream and road crosses the southern allotment boundary (see Map 2, Appendix A). Channel incision appears to be due to the road cutting across the head of the drainage combined with a bedrock knick-point. Below this knick-point, stream bank incision is over six feet, and banks tend to be vertical to laid-back, with incipient re-vegetation. Head-cutting is eroding into the naturally surfaced road bed-prism (PR, #31).



Figure 7. Location where FS 4161A runs along and through Largo Canyon in Outlaw Pasture (Photo courtesy of Jenny Fryxell).

Skunk, McMahan, Outlaw and Cross V springs are found within the allotment's boundary but riparian vegetation is not associated with them. Elk use was evident on all springs visited. Skunk Springs had limited flow. McMahan Springs and Outlaw Springs both appeared to be functioning well, despite trampling by elk (PR, #31).

Soil Condition

General Ecosystem Survey (GES)

In 1991 a General Ecosystem Survey (GES) was conducted that included the Gila National Forest. Soils were classified as to stability and suitability (Tables 3 and 4). Each rating may apply entirely or only in part to the surface area contained by the map unit and multiple ratings may apply to the same soil map unit. For instance, a single map unit might be composed of one or more soil components, each with its own set of interpretations (i.e. a map unit may have both stable and unstable components). However the exact physical location within a particular map unit of the areas rated is unknown. Only a part of the total map unit may be contained within the Cross V Allotment. An assumption was made that the percentages found within the unit as a whole would be representative of that part of the unit found within the allotment (PR, #23).

As determined during the General Ecosystem Survey (GES), there are four soil map units (MU) within the Cross V Allotment (Map 3, Appendix A, Tables 3 and 4). Soils on the Cross V

Allotment are variable and have formed from residuum or alluvium. The topography on the allotment ranges from gently sloping elevated plains to mountain and canyon slopes and escarpments (PR, #23).

Table 3. Soils rated for stability, Cross V Allotment.

Map Unit	Parent Material	Stable	Un-rated	Total Acres
196	Residuum	3,306 (100%)		3,306
501	Alluvium	95 (100%)		95
168	Residuum	3,648.5 (50%)	3,648.5 (50%)	7,297
149	Residuum	3,476 (100%)		3,476
Totals		10,525.5 (74%)	3,648.5 (26%)	14,174

Note: The above table is based upon the ground cover estimates taken during the fieldwork for General Ecosystem Surveys. "Stable" is defined as estimated current and natural soil loss being below tolerance soil loss. "Impaired" is an estimate of current soil loss above tolerance soil loss but natural soil loss being below tolerance soil loss. "Unstable" is defined as having both estimated current and natural soil loss being above the tolerance soil loss levels. There were no impaired or unstable soils. The locations of the amount of subtypes found within the overall map unit are unknown. The percentage of each subtype within a map unit is assumed to be the same as the percentage within that part of the map unit found within the allotment.

Table 4. Satisfactory and Unsatisfactory soils, Cross V Allotment.

Map Unit	Satisfactory	Unsatisfactory	Unrated	Total Acres
196	3,307 (100%)			3,307
501	47.5 (50%)	47.5 (50%)		95
168	3,648.5 (50%)		3,648.5 (50%)	7,297
149	1,738 (50%)	1,738 (50%)		3,476
Total	8,741 (62%)	1,785.5 (12%)	3,648.5 (26%)	14,174

Soil conditions reflect both disturbance resulting from a management practice and maintenance of soil productivity. All rated soil map units rated were stable (Table 3) and 62 percent of the soils are in satisfactory condition with only 12 percent of the area classified as unsatisfactory (Table 4) (PR, #23).

Watershed and Soil Surveys

With the exception of Cluster 4, long term monitoring at key areas indicates that soil and watershed conditions have greatly improved since 1966 with all monitoring areas in satisfactory soil and watershed condition (fair to good) with stable or upward trends (See *Watershed Section* and Table 2 above) (PRs, #23 and 27).

Cluster 4 remains in satisfactory condition but is in a downward trend. This cluster is in the part of the South Pasture that burned in 2006 and is recovering from fire effects (see Fig. 4, above). Watershed condition is still satisfactory with a fair watershed condition but the trend is considered to be down (Table 2). This area is expected to fully recover from the fire and the trend will be stable (PR, #27).

Soil and watershed condition summary ratings are based on the amount of ground cover created by plants, litter, and rocks that will protect the soil from erosion, and the amount of erosion that actually exists on a site. The amount of plant cover was significantly improved from 1966 and the amount of bare ground was down significantly (see Fig. 2, above) (PR, #23).

Soil Condition Summary

Key area condition and trend reflects the condition and stability of the allotment at large. Because satisfactory condition and trend at key areas reflected observations made during site surveys, un-rated areas (26%) of the allotment under the GES are expected to have similar condition and trend. Local variations in soil depth and productivity may exist however GES data indicates that all of the soils that were rated on the allotment are stable (PR, #23).

Unsatisfactory soil conditions recorded by GES mapping (12%) may in part be the result of livestock grazing, but recent field studies and long-term monitoring suggest that unsatisfactory conditions may be the legacy of historic management. The allotment was not stocked 7 years out of the last 13 and, with the exception of one year, was only lightly stocked the remaining 5 years (see *Historical and Current Management* section and Table 1 above) which indicates recent grazing management does not appear to have significantly contributed to soil loss in the allotment. This seems to indicate that unsatisfactory conditions may have developed historically and have subsequently begun to stabilize under more recent management (PR, #23).

Summary of Existing and Desired Condition

Table 5. Existing and Desired Conditions by Pasture for Cross V Allotment.

Pasture Name	Existing Conditions ¹	Desired Conditions ¹
Cottonwood	Satisfactory vegetative condition in all but the southwest corner near water located on the ranch headquarters.	Restore satisfactory conditions throughout the pasture.
Outlaw	Poor vegetative conditions in the southeast part of the pasture near water located on the ranch headquarters and along Largo Canyon on the west side. Vegetative conditions satisfactory in remainder of the pasture.	Restore satisfactory conditions throughout the pasture.
South	Poor vegetative conditions west of FS 49. Approximately 20 percent of the pasture was burned in 2006 and is still recovering. Vegetative conditions satisfactory in remainder of the pasture.	Restore satisfactory conditions throughout the pasture.
Devils Canyon	Approximately 68 percent of the pasture was burned in 2006 and is still recovering. Vegetative conditions satisfactory around P11 (C2) and P5 and areas outside of the burn. Stock waters do not have water-lots.	Restore satisfactory conditions throughout the pasture.

¹Satisfactory is defined as having a vegetative and/or soil condition rating that is fair, good, or excellent and meets Gila National Forest Plan direction.

Purpose and Need for Action

The purpose and need for the Cross V Allotment Environmental Assessment is to authorize livestock grazing to provide long-term management direction on grazing through allotment management plans (AMPs). Cross V Allotment currently lacks sufficient environmental analysis to comply with Section 504 of the Rescissions Act of 1995 (P.L. 104-19). Completion of NEPA for this allotment fulfils a portion of the Region 3 and Gila National Forest’s overall strategy to complete NEPA on all Forest allotments.

The current vegetative conditions are inconsistent with the Gila National Forest Plan (GNFP). Approximately 38 percent of the allotment remains in unsatisfactory vegetative condition.

Gila National Forest Plan Goals and Standards

Direction for range is found in several different places within the GNFP. The Cross V Allotment is completely within Management Area (MA) 6A (GNFP, page 171-178). The management emphasis for MA 6A is to manage for wildlife, range, timber, fuelwood, and recreation. This MA is best summarized in the GNFP by the desire to achieve a management situation that can respond to local or national demands for livestock production, water yield, and a wide mix of recreation opportunities including wildlife-related uses as described in the various goals listed on pages 11 and 12. Specific plan directions applicable to this project are as follows:

- (Goal) Provide forage to the extent benefits are commensurate with costs without impairing land productivity and within the constraints of social needs (GNFP, page 11).
- Permitted numbers will be balanced with grazing capacity by the end of the second decade (GNFP, page 32).
- Manage to bring all grazing allotments to satisfactory management by the mid-point of the third decade. Satisfactory management occurs on allotments where management actions proceed according to a schedule (Allotment Management Plan) that will not permit regression in range condition or trend (GNFP, page 32).
- Grazing in riparian zones will be managed to provide for the maintenance and improvement of riparian areas (GNFP, page 32).
- Manage riparian areas in accordance with legal requirements regarding floodplains, wetlands, wild and scenic rivers, and cultural and other resources (GNFP, page 30).
- Manage riparian areas to protect the productivity and diversity of riparian-dependent resources by requiring actions within or affecting riparian areas to protect and where applicable, improve dependent resources (GNFP, page 30).
- Give preferential consideration to resources dependent on riparian areas over other resources (GNFP, page 30).
- Improve riparian ecosystems in unsatisfactory condition to satisfactory condition and maintain riparian ecosystems currently in satisfactory condition (Amendment No. 10, 2005).
- Manage for a diverse, well-distributed pattern of habitats for wildlife populations and fish species; maintain and/or improve habitat for threatened or endangered species and work toward the eventual recovery and delisting of species through recovery plans (GNFP, page 12).
- Provide for the management of sensitive soils in all surface-disturbing activities to minimize or control erosion (GNFP, page 36).
- Maintain or improve watershed conditions to a satisfactory condition on 70 to 90 percent of the unsatisfactory watersheds by the end of the fifth decade (GNFP, page 36).

Decision Framework

Given the purpose and need, the deciding official reviews the proposed action and the other alternatives in order to make the following decisions:

In consideration of the best available science and direction found in the Gila National Forest Plan as amended, the District Ranger will decide whether or not to authorize livestock grazing on the Cross V Allotment. If livestock grazing is authorized, the District Ranger will

determine the type and duration of permits to issue with the associated AMP. The District Ranger may select any of the alternatives analyzed in detail, or may modify and select a combination of alternatives, so long as the resulting effects are within the range of this analysis and disclosed in this document and the supporting reports. If a permit is issued, the District Ranger would decide on the following:

- Where and when grazing would take place.
- How the allotment would be managed (management practices, grazing systems, supplements, standards, livestock numbers, timing of grazing, seasons of use, utilization guidelines, etc.).
- What connected actions such as resource treatments, new range developments or reconstruction of existing improvements would be implemented and on what schedule these actions would occur.
- What design features would be implemented.

This assessment is not a decision document. Rather, it discloses the environmental consequences of implementing the proposed action and alternatives to that action. This analysis incorporates by reference (as per 40 CFR 1502.21) the Project Record, including specialist reports and other technical documentation used to support the analyses. Although analysis was completed for range, wildlife, hydrology, soils, and heritage; it is acknowledged that in some instances there may be incomplete or unavailable information, scientific uncertainty, and the variability inherent in complex systems. Information from these reports has been summarized in this environmental assessment. A Decision Notice, signed by the District Ranger (deciding official) after the completion of the assessment, would document the decisions made as a result of this analysis. Future actions will be evaluated through the NEPA process and will stand on their own as to environmental effects and project feasibility

Public Involvement

The proposed action was listed in the January 1, 2008 Schedule of Proposed Actions (PR, #13). A draft proposed action was provided to the grazing permittee November 20, 2007 (PR, # 11). A scoping letter was mailed on January 24, 2008, to approximately 75 state, Federal, Tribal governments, non-government organizations, and individuals detailing the proposed action for the Cross V Allotment (PR, #14). A variety of individuals, permittees, environmental, professional, multiple-use organizations, and government agencies were represented on the mailing list. The scoping comments were reviewed and no significant issues were identified (PR, #24).

On August 27, 2008 the Environmental Assessment (EA) was provided to the public for review and comment. There were two responses both of which were considered in the final EA (PR #40).

Issues

A comment analysis was completed for all comments received during the scoping period. The Forest Service process is to separate the issues into two groups: significant and non-significant issues. Significant issues were defined as those directly or indirectly caused by implementing the proposed action. Non-significant issues were identified as those: (1) outside the scope of the proposed action; (2) already decided by law, regulation, Forest Plan, or other higher level decision; (3) irrelevant to the decision to be made; or (4) conjectural and not supported by scientific or factual evidence. The Council for Environmental Quality (CEQ) NEPA regulations require this delineation in Sec. 1501.7, "...identify and eliminate from detailed study the issues which are not significant or which have been covered by prior environmental review (Sec.

1506.3)...” All issues were non-significant and no new issues were developed as a result of comments received from the public. However, the Forest Service identified two primary concerns (listed as follows) that will be used in the analysis of impacts of the proposed action. Impacts will be quantified to the extent practicable, but when they can not, a qualitative narrative based on the expertise of an appropriate resource specialist will be presented.

- **Grazing effects on vegetation:** Grazing at the proposed utilization levels may impede the attainment of GNFP objectives for range vegetation. This includes the continuation of recovery within the area burned by the Wilson Fire.
- **Grazing effects on wildlife:** Authorization of grazing may have adverse effects on threatened, endangered, proposed, sensitive (TEPS) species or on management indicator species (MIS) or their habitats.

Additional environmental components to be considered in the EA include air, watershed, economics, and heritage resources.

Chapter 2 – Alternatives

This chapter describes and compares the alternatives considered for the Cross V Allotment, presenting the alternatives in comparative form to sharply define the differences between each alternative and provide a clear basis for choice among options by the decision maker and the public.

Alternatives Considered

Alternative One (No Action)

Forest Service Policy (Forest Service Handbook 2209.13) requires the Forest Service to identify no grazing as the no-action alternative. Under this alternative, grazing would not be authorized and use of the allotments by domestic livestock would be discontinued. Existing boundary fences would be assigned to adjacent permittees. Interior fences would be removed to mitigate potential adverse impact to wildlife and public users. Water developments, important for wildlife, would be maintained where feasible using other program funds or volunteers.

Alternative Two (Proposed Action)

The Reserve Ranger District, Gila National Forest, proposes to authorize grazing on the Cross V Allotment under the following terms and conditions that define the limits for the numbers, duration, intensity, frequency and timing of grazing (see Map 2, Appendix A).

- **Numbers and Duration:** Authorize grazing for up to 50 cattle, cow/calf pairs (or equivalent use by other kind or class of livestock) for up to 12 months. This would be equivalent to 792 Animal Unit Months (AUMs)⁶
- **Intensity:** Set herbaceous forage utilization at a conservative use level, approximately 31 to 40 percent utilization (Holechek et al. 1999⁷), including wildlife use, throughout all areas. Within riparian areas in Largo Canyon limit the amount of woody sprouts, seedlings and saplings that are heavily hedged to not more than 25 percent.
- **Frequency and Timing:** Management systems will be designed to incorporate growing season rest or deferment in order to provide for grazed plant recovery. Timing of pasture moves will be dictated by utilization monitoring and management objectives specified in allotment management plans with the following design criteria:
 - Livestock will be managed using a deferred rest-rotation management system, with “best pasture⁸” use during the growing season. This grazing system may change based on short and long term monitoring and how well the system is improving conditions within the areas identified having poor range conditions

⁶ AUM is defined as the amount of oven-dry forage required by one animal unit (cow) for a period of 30 animal-unit-days.

⁷ Holechek, J.L., H. Gomez, F. Molinar, and D. Galt. 1999. Grazing studies: what we’ve learned. *Rangelands* 21(2), 5 pg.

⁸ Best pasture is the pasture with the most favorable combination of water and forage that will provide for sustained use of pasture by scheduled numbers and time and allow proper distribution of livestock use (Holechek JL, RD Peiper, and CH Herbel. 1995. *Range Management Principles and Practices*. 2nd ed)

- Based on an annual range assessment the actual rotation will be based on water availability, amount of forage, and current climatic conditions.
- **Livestock Management:**
 - Cottonwood, Outlaw, and some of South Pastures will be used for winter spring use. The higher elevation range in South and Devils Canyon will be used during the summer and fall.
 - Seasonal deferment (rest) will be accomplished by interchanging the on and off dates. For example livestock will be pushed through the South Pasture to summer early in Devils Canyon during the first half of the growing season and then pushed into the South Pasture for the second half of the growing season. For the next year this would be reversed.
 - Provide supplement for livestock as follows (to strategically manage livestock distribution and forage use):
 - Locate supplement sites 0.25 mile or more from waters except where prior written approval has been obtained from District Ranger.
 - Place supplements where forage is abundant and current grazing use levels are low. Supplements should not be placed at any one location more than once during the grazing season to prevent the concentration of livestock.
 - Limit supplement types to salt, protein, and mineral blocks to reduce risk of spreading noxious weeds and to reduce the risk of creating areas of concentrated livestock use.
 - If there is a need for energy supplements such as grain, hay, surplus milk products, ethanol production by-products or molasses based products; a supplemental plan will be developed and approved by the District Ranger prior to placing these energy type supplements on National Forest lands.
 - If utilization of 31 to 40 percent is exceeded in 30 percent of the areas frequented by livestock in two consecutive years, water-lots will be installed on the following waters in the Devils Canyon Pasture.
 - Devils Tank
 - Cross V Tank
 - Restore all current range infrastructures, such as fences and waters, to good condition where needed and continue to maintain the current infrastructure that is currently in good condition.
 - Ensure all future range fence reconstruction would be designed to be wildlife friendly including appropriate installation of elk crossings, use of smooth bottom wire, standard spacing to prevent entrapment, maximum height limits, and locations.
 - Allow fire where practical and safe to assume a more natural role within the ecosystem.
 - In areas where woody vegetation has proliferated at the expense of herbaceous vegetation, look for opportunities to reverse this trend.

The proposed action incorporates management flexibility by providing a range of allowable numbers that reflects variations in resource conditions and management objectives over time. Within this range, annual permitted livestock numbers will be specified in annual operating instructions. Initial stocking rates will be set based on existing resource and infrastructure conditions. Changes in stocking would occur as a result of changes in resource conditions or management objectives. Herd movements would be determined by utilization levels, forage

conditions and water availability and will be specified in annual operating instructions. A new allotment management plan (AMP) will be developed. The plan will also include mitigation measures and Best Management Practices to avoid or minimize effects to wildlife, soil and water quality. Monitoring of forage availability and utilization, range readiness and resource conditions will be used to determine whether management is being properly implemented and whether the actions are effective at achieving or moving toward desired conditions. With the exception of needing water-lots in Devils Pasture, existing range improvements are considered sufficient to accomplish management on the allotment.

Monitoring

Short Term: Continue monitoring livestock management activities and the effects that livestock grazing activities are having on the allotment. Monitoring will be accomplished annually through allotment inspections, measuring current year forage production and grazing intensity, and the normal allotment record keeping activities.

Long Term: Periodically, various data collection techniques will be used to record vegetative and watershed conditions for a point in time to be compared with the same area at a later time to determine vegetative condition trend. Areas accessible to livestock within the Wilson Fire that burned at high intensity will be identified and will be considered key areas for monitoring.

Alternatives Eliminated from Detailed Study

Alternative 3, Current Management as defined as current permitted livestock numbers is similar to the Proposed Action therefore, the Current Management Alternative will not be considered in detail.

Future Review of the Decision

In accordance with Forest Service Handbook direction (FSH 1909.15 (18)) an interdisciplinary review of the decision will occur within 10 years or sooner, if conditions warrant. If this review indicates that management is meeting standards and achieving desired condition, the initial management activities will be allowed to continue. If monitoring demonstrates that management options beyond the scope of the analysis are warranted, or if new information demonstrates significant effects not previously considered, further analysis under NEPA will occur.

Minor additions to existing infrastructure such as fencing or waters to achieve the objective of restoring range conditions are tied to this Environmental Assessment and are allowed providing that all new structures would have heritage and biological clearances prior to implementation and all Forest Plan Standards and Guides would be followed.

Comparison of Alternatives

This section provides a summary of the effects of implementing each alternative. Information in Table 6 focuses on those activities and effects that can be distinguished quantitatively or qualitatively between the alternatives.

Table 6. Comparison of the No Action Alternative with the Proposed Action.

Criteria	Alternative One (No Action)	Alternative Two, Proposed Action
Number of livestock authorized (animal unit months)	0	Up to 50 cattle, cow/calf pairs (or equivalent use by other kind or class of livestock) for up to 12 months (792 AUMs)
Vegetative Condition	Stable or improving; pinyon pine, juniper, and/or ponderosa pine encroachment would continue to have a negative effect	Stable or improving; pinyon pine, juniper, and/or ponderosa pine encroachment would continue to have a negative effect. Improvement would not be as fast as the No Action Alternative.
Watershed and Soil Condition	Maintain current satisfactory watershed conditions. The one area with downward trend would have trend reversed. The trend is thought to be due to the Wilson Fire and will improve with time.	Existing satisfactory watershed conditions would be maintained. The one area with downward trend would have trend reversed. The trend is thought to be due to the Wilson Fire and will improve with time. Improvement would not be as fast as the No Action Alternative.
Riparian Condition	Satisfactory conditions in upper Largo Canyon would be maintained. The Un-satisfactory conditions in lower Largo Canyon is primarily due to the impacts of the road that runs along the bottom. This would not change.	Satisfactory conditions in upper Largo Canyon would be maintained. The Un-satisfactory conditions in lower Largo Canyon is due primarily to the impacts of the road that runs along the bottom. This would not change.
Grazing Intensity	No Use	Conservative use (31–40 %) for all upland areas. Within riparian areas the amount of hedging on woody sprouts, seedlings and saplings would be limited to not more than 25 percent would be heavily hedged.

Criteria	Alternative One (No Action)	Alternative Two, Proposed Action
Frequency and Timing	No Use, total rest.	Adequate rest before and after grazing would be obtained by having a livestock management system with growing season deferrment rest each year.
Economics	No permittee income, permit revenue would be lost; administrative costs would be slightly reduced, but FS maintenance costs would increase; no improvement costs	Permitted number will not change. Actual use has been lower than permitted numbers. Numbers are expected to increase to permitted numbers based on forage and water availability. Therefore, additional revenue may be available for both the Government and the Permittee.
Effects on Threatened, Endangered, Proposed, or Sensitive species	No Effects	May affect, not likely to adversely affect Chiricahua leopard frog and Mexican spotted owl and not likely to jeopardize Mexican gray wolf. No effects on all other listed species; the proposed action would not result in a trend toward federal listing or loss of viability for any sensitive species
Effects to Management Indicator Species	No Effects	Small reduction in herbacious vegetation; viable populations maintained
Heritage Resources	No Effect	Effects avoided or mitigated, No Adverse Effect

Chapter 3 - Environmental Consequences

This section summarizes the physical, biological, social and economic environments of the affected project area and the potential changes to those environments due to implementation of the alternatives. It also presents the scientific and analytical basis for the comparison of alternatives presented in the chart above. The analysis is organized by resource. Within each section, the affected environment is briefly described followed by the environmental consequences (effects) of each alternative.

Vegetation Condition

Affected Environment

Vegetation associations found on Cross V Allotment are primarily pinyon-juniper (62%) and ponderosa pine (31%). The majority of the country has open ridge tops with pinyon-juniper on the side-slopes and in the canyons. The dominant grass species include blue grama, sideoats grama, mountain muhly, pine dropseed, mutton grass, wolfstail, bottlebrush squirrel tail, and some carex along with aristida species. In addition, there are many forb species, mostly a wide array of composite species. The common browse species are mountain mahogany, grey oak. Juniper and ponderosa pine is the dominant overstory species in many areas. Juniper is encroaching upon many of the open ridge tops and grassland areas. The density of ponderosa pine is increasing with a higher canopy cover however conditions were improved with the Wilson Fire (PR, #27).

There is a significant vegetation condition improvement since 1966 with an estimated 62 percent being in satisfactory vegetative condition. However it is also estimated that 38 percent of the allotment remains in unsatisfactory vegetative condition which is one of the primary concerns that the proposed action was design to correct (PR, #27).

Environmental Consequences (Vegetative Condition)

No Action or No Grazing Alternative: There will be no direct or indirect effects from livestock grazing. Light use by elk is expected to continue. Over the long term, the effects of this alternative would be increases in the frequency, density and vigor of herbaceous species in most areas maintaining suitable range conditions. Pinyon pine, juniper, and ponderosa pine encroachment would continue and the stems per acre would continue to increase at the expense of herbaceous forage in the absence of fire (PR, #27).

Proposed Action:

The Proposed Action utilizes adaptive management that will be based on climatic conditions, grazing intensity, forage and water availability. The livestock management system will be a seasonally deferred rotation system designed to provide growing season rest. Proposed livestock numbers are within the potential capacity for the Cross V Allotment. Grazing intensity will be kept to a conservative utilization level (31 to 40 %, or less). Livestock dispersion or movement will be accomplished by limited herding and the use of waterlots where waters can be restricted forcing livestock to move to other areas of the pasture. All of this is expected to improve vegetative conditions throughout the allotment. This level of utilization has been shown by

Holechek et al (1998)⁹ to increase forage production and improve vegetation composition which would therefore improve vegetative condition (PR, #27).

Cumulative Effects (Vegetative Condition)

The Wilson Fire in 2006 has brought about significant improvements in vegetative condition in the South and Devils Canyon Pastures. The effect of past livestock grazing, in combination with fire suppression has been an increase in woody species and a corresponding loss of herbaceous vegetation. These conditions are not likely to change significantly in the absence of fire. Monitoring demonstrates that current management has resulted in improvements in vegetative condition. The Proposed Action with a combination of adaptive management and light to conservative grazing intensity and seasonally deferred grazing, in combination with the other design features, is not expected to result in significant direct or indirect negative effects to vegetation. This alternative will provide sufficient fine fuels to support natural fires and return the area to a more natural fire regime.

Watershed

Affected Environment

The Cross V Allotment is within the Negrito Creek and Upper San Francisco River 5th level watersheds both evaluated to be in satisfactory condition. Based on 16 data collection locations (28 transects) the watershed condition is satisfactory with fair to excellent condition ratings. Overall, based on the GES soil survey and the watershed ratings the watershed condition is satisfactory (PRs, #23 and 31).

Environmental Consequences (Watershed)

No Action or No Grazing Alternative: There will be no direct or indirect effects from livestock grazing. Vegetation groundcover would contribute to maintaining a satisfactory nutrient cycling and soil structure. The hydrologic function and runoff would continue to be satisfactory. The potential increase of vegetation groundcover and loss of potential livestock compaction would contribute to an improved hydrologic and soil stability functions. Woody riparian species would be able to establish at a faster rate than under controlled grazing use. Range structural improvements (fences and water developments) would not be maintained. Maintenance of allotment boundary fences would become the responsibility of the adjoining allotment. Eventually, interior range improvements would be removed except those needed and funded by other program areas such as the wildlife program.

Proposed Action: Water is supplied across the allotment with eleven water tanks and water lots. This factor, combined with the implementation of pasture rotation, monitoring and adaptive management, should protect all spring's ability to properly function (PR, #31).

Conservative allowable use levels are expected to provide sufficient residual biomass to protect the watershed, stream channels, and riparian areas over time; especially as vegetation in the southern most portion of Largo Canyon in Devils Canyon Pasture recovers from the 2006 Wilson Fire. As stocking levels would not change, and their location would be managed using a deferred-

⁹ Holechek, J.L., R. Pieper, C. Herbel. 2001. Range Management: Principles and Practices. 4th Ed. Prentice Hall Ind.

rotation management system, existing levels of grazing related influences would be expected to remain at present levels. The deferred-rotation system would allow the vegetation to not be impacted by grazing by providing growing season rest, potentially producing positive gains in plant vigor, recruitment and bank stability (PR, #31).

Although floodplains are present, they are poorly developed and often influenced by road location. Implementation of the project would not improve or degrade floodplain function as the primary factor affection function is road location (PR, #31).

The largest potential issues facing water quality, related to grazing, are exceedances related to turbidity, siltation and fecal coliform. Overgrazing can result in decreased vegetative cover and increased erosion, thus contributing to siltation and turbidity. Fecal coliform exceedances would most likely be related to animal waste (PR, #31).

The San Francisco River from Largo Canyon to Centerfire Creek is listed as a 303(d) stream by the Clean Water Act¹⁰. The report shows that waters in this segment have attained the water quality criteria for coldwater aquatic life, irrigation, livestock watering and wildlife habitat, all of which are also designated beneficial uses for this stream reach (PR, #31).

Cumulative Effects – Watersheds

A watershed cumulative impact can be defined as the total impact, positive or negative, on runoff, erosion, water yield, floods, and/or water quality that result from the incremental impact of a proposed action, when added to other past, present and reasonably foreseeable future actions occurring within the same natural drainage basin, or watershed. This analysis discusses the information relevant to the cumulative effects analysis for the 6th level watersheds involved in the Cross V allotment. This analysis considers past, present and foreseeable future effects which are summarized in Table 7 (PR, #31).

Currently, evidence from monitoring shows that the watershed associated with this allotment is not experiencing adverse effects. Past activities include outputs for wood products, livestock production, and provision of a wide mix of recreation opportunities. Current activities are consistent with Forest Plan and Management Area direction. The watershed resource is in satisfactory condition and the implementation of either the No Action or the Proposed Action Alternative is expected to maintain this trend. Future activities planned for implementation within or adjacent to the watersheds that contain the Cross V Allotment would be commensurate with Forest Plan and Management Area direction (PR, #31).

No long-term negative effects on the watershed resource are expected with the implementation of the No Action or Proposed Action in combination with the use of BMPs, monitoring, and adaptive management, therefore future impacts should be consistent with Forest Plan Standards. Implementation of either alternative combined with past, present and reasonably foreseeable activities are not expected to negatively impact soil conditions (PR, #31).

¹⁰ Section 303(d) of the Clean Water Act (CWA) requires that TMDL be set for listed streams (http://www.nmenv.state.nm.us/swqb/303d-305b/2006-2008/2006-3008_303d-d05bLIST.pdf)

Table 7. Past, present, and future activities with 6th level Watersheds associated with Cross V Allotment.

Past Activities	
<ol style="list-style-type: none"> 1. Available GIS data indicates that within the cumulative effects analysis area, timber related activity has occurred from 1988-1996. Activities were commercial thinning (58 acres), shelterwood seed cut harvest (131 acres), tree encroachment control (141), final removal cut harvest (166), sanitation/salvage harvest (307 acres), shelterwood removal cut harvest (347 acres) Precommercial thinning (1, 092 acres). 2. Collection of deadwood for firewood 3. Available recorded fire data goes back to 1971. A total of 5, 833.2 acres were burned in the 2006 Wilson fire in watersheds 150400040110, 111 and 604. 4. Historical use of the Allotment for grazing. 379.1 acres of private land 5. Historical grazing of adjacent Toriette, Apache Canon, Black Bob and Laney allotments 6. Existing road density varies from a low of 0.7 mi/sq. miles in watershed 150400040110 and a high of 1.6mi/sq.miles in watershed 150400040604. 7. There are no active mining claims within the cumulative effects boundary 	
Present Activities	
<ol style="list-style-type: none"> 1. Collection of deadwood for firewood 2. WUI treatments are ongoing in watershed 150400040110 and may be comprised of one or more the following activities: lop and scatter, piling and burning and prescribed burning of existing fuels. Total acreages for present and future activities equals 2, 304.5 acres 3. Grazing on this Allotment and on private land 4. Continued grazing on the adjacent Toriette, Apache Canyon, and Black Bob allotments, and on the Alexander allotment, which is also located in watershed 150400040604, but is not adjacent to Cross V. 5. Existing road density varies from a low of 0.15 mi/sq. miles in watershed 150400040604 and a high of 0.22 mi/sq.miles. 6. There are no active mining claims within the cumulative effects boundary 7. Martinez Personal Use Small Products Area, T6SR19W, Sections 3-10 and surrounding area (Watershed 150400040110), implemented in the fall of 2007, and is still ongoing at the time of this report. 	
Future Activities	
<ol style="list-style-type: none"> 1. Grazing on adjacent active allotments 2. WUI treatments are ongoing in watershed 150400040110 and may be comprised of one or more the following activities: lop, scatter and prescribed burning, pile and burn or prescribed burning of existing fuels. Total acreages for present and future activities in watershed 150400040110 equals 2, 304.5 acres 	

Threatened and Endangered Wildlife, Plants, and Fish

Section 2 of the Endangered Species Act of 1973, as amended 1978, 1979, 1982, and 1988 (16 U.S.C. 1531et seq.) declares that "...all Federal departments and agencies shall seek to conserve endangered species and threatened species and shall utilize their authorities in furtherance of the purposes of this Act." Section 7 directs Federal agencies to ensure that actions authorized, funded, or carried out by them are not likely to jeopardize the continued existence of any threatened or endangered species or result in the destruction or adverse modification of their critical habitats (16 U.S.C. 1536 et sq.). Federal agencies also must consult with the Secretary of the Interior (U.S. Fish and Wildlife Service) whenever an action authorized by the agency is likely to affect a species listed as threatened or endangered or to affect its critical habitat. The act mandates conference with the Secretary of the Interior whenever an action is likely to jeopardize the continued existence of any species proposed for listing as threatened or endangered, or whenever an action might result in destruction or adverse modification of critical habitat proposed for

listing (16 U.S.C. 1536(a) 4). The following discussion on affected environment is summarized from the Biological Evaluation and Assessment (BAE) and other reports.

Affected Environment

Eleven listed and two candidate wildlife, fish, and plant species occur within Catron County, New Mexico¹¹. It was determined that only the Mexican spotted owl, Chiricahua leopard frog, and the Mexican gray wolf could be present within the allotment or may be affected by the action being proposed. It was determined that the Proposed Action would have no effect or that other listed or proposed species, or their habitat, does not occur within this allotment. Consistency determinations for the Cross V Allotment were made using the Framework for Streamlining Informal Consultation for Livestock Grazing Activities (PR, #7). It was determined that the project may effect but not likely to adversely affect the Chiricahua leopard frog and Mexican spotted owl, and would not likely to jeopardize the Mexican gray wolf (Table 8). The consultation packet was first presented to the US Fish and Wildlife Service (USFWS) July 8-9, 2008 with a request for concurrence July 25, 2008. USFWS concurred with all determinations August 13, 2008 (PR, #30).

Table 8. Summary of listed species and the determination of affect.

Common	Scientific	Species	Critical Habitat
Mexican gray wolf	<i>Canis lupus baileyi</i>	Not Likely to Jeopardize	N/A
Jaguar	<i>Panthera onca arizonensis</i>	No Effect	N/A
Loach Minnow	<i>Tiaroga cobitis</i>	No Effect	No Effect
Spikedace	<i>Meda fulgida</i>	No Effect	No Effect
Southwestern willow flycatcher	<i>Empidonax traillii extimus</i>	No Effect	No Effect
Chiricahua leopard frog	<i>Rana chiricahuensis</i>	MANLAA	N/A
Mexican spotted owl	<i>Strix occidentalis lucida</i>	MANLAA	No Effect

Mexican Spotted Owl

There are no Protected Activity Centers (PACs) within the Cross V Allotment. However there is Critical Habitat and two PACs¹² adjacent to the Devils Canyon Pasture on the west side in the Laney (Frisco Pasture) and Black Bob (West Mess Box Pasture) Allotments. A small amount (approximately 164 acres) of Critical Habitat overlaps the western boundary. The west side of Devils Canyon Pasture is in satisfactory vegetative and watershed condition (see *Vegetative Condition by Pasture*, pg 5).

In accordance with criteria identified in the document “Framework for Streamlining Informal Consultation for Livestock Grazing Activities” all of the following criteria were met leading to a determination of **May Affect, Not Likely to Adversely Affect** (PR, #29).

¹¹ <http://ifw2es.fws.gov/>

¹² PAC names – Quemado_h-v_#3 (030603006) and Quemado_h-v_#2 (030603005)

1. Livestock grazing or livestock management activities will occur with PACs, but no human disturbance or construction actions associated with the livestock grazing will occur in PACs during the breeding season.
 - a. There are no PACs within the Cross V Allotment.
2. Livestock grazing and livestock management activities within PACs in the action area will be managed for levels that provide the woody and herbaceous vegetation necessary for cover for rodent prey species, the residual biomass that will support prescribed natural and ignited fires that would reduce the risk of catastrophic wildfire in the Forest, and regeneration riparian trees.
 - a. There are no PACs however habitat is being managed to meet this criteria by the following:
 - i. Based on utilization guidelines of conservative use (31-40%), use of waterlots to aid in livestock distribution, and a deferred rotation grazing system to provide growing season rest will provide the woody and herbaceous vegetation necessary for cover for rodent prey species, the residual biomass will support prescribed natural and ignited fires, and the regeneration of riparian trees will continue.
3. In owl foraging areas, forage utilization will be maintained at conservative levels (defined as forage utilization maintained between 30-40% of annual forage production by weight).
 - a. The allowable forage utilization is established at 31-40 percent or less which is a conservative level. Adherence to utilization levels is mandatory will be emphasized during annual validation meetings documented in AOIs..

Chiricahua Leopard Frog

All stock tanks within the Cross V Allotment were surveyed to protocol for Chiricahua leopard frogs in 2006 with negative results. The San Francisco River is in close proximity to the Devils Canyon Pasture on the west side. The San Francisco River was occupied by Chiricahua leopard frogs as recently as 2002. Results of protocol surveys conducted in these reaches of the river in subsequent years including 2007 were all negative. The Wilson Canyon flows into the Tularosa River that is currently occupied by the Chiricahua leopard frog along some reaches based on surveys conducted in 2007. Wilson Canyon flows through private land that was once a holding pasture on the east side of Cottonwood Pasture. This private land is no longer a part of the Cross V Allotment.

In accordance with criteria identified in the document “Framework for Streamlining Informal Consultation for Livestock Grazing Activities” all of the following criteria were met leading to a determination of **May Affect, Not Likely to Adversely Affect** (PR, #29).

1. There will be no livestock use or livestock management activities where the species is reasonably certain to occur or there is occupied aquatic habitat (grazing is allowed in non-occupied suitable habitat).
2. Indirect effects occurring within the action area, where the frog is reasonably certain to occur, which result from upland livestock grazing are determined to be insignificant or discountable.

3. Proposed livestock management activities, within the action area, will not increase the likelihood that non-native predators or chytrid fungi will colonize or be introduced to such aquatic sites.

There would be no livestock use or livestock management activities where the species is reasonably certain to occur or where there is occupied habitat. Livestock grazing as proposed would have no direct effects on the Chiricahua leopard frog and its habitat.

Indirect effects on the Chiricahua leopard frog and habitat where the species is reasonably certain to occur would be insignificant and discountable based on utilization guidelines of conservative use (31-40%), use of waterlots to aid in livestock distribution, and a deferred rotation grazing system to provide growing season rest. It is reasonable to expect that the Proposed Action will provide and maintain satisfactory vegetation, watershed, and soil condition. Proposed livestock management activities within the allotment would not increase the likelihood that non-native predators or chytrid fungi would colonize or be introduced.

Mexican Gray Wolf

On January 12, 1998, the U. S. Fish and Wildlife Service published an Endangered Species Act section 10(j) rule for the Mexican gray wolf that provided for the designation of specific populations of listed species in the United States as “experimental populations”. The Mexican gray wolf is in the process of being reintroduced on the entire 3.3 million acres of the Gila National Forest in New Mexico and on the Apache-Sitgreaves National Forests in Arizona. These wolves have been designated as a non-essential experimental population, pursuant to section 10(j) of the Endangered Species Act as amended.

By definition, a non-essential experimental population is not essential to the continued existence of the species. Therefore, no proposed action impacting a 10(j) population so designated could lead to a jeopardy determination for the entire species. Therefore, proposed livestock grazing and livestock management activities in the 10(j) area with Mexican gray wolves are not likely to jeopardize the continued existence of the wolf.

Single wolves (F924 and F624) were each located on the allotment once in 2006 and 2000, respectively. There has been several sightings of single wolves near (<3 miles) the allotment. The San Mateo pack has been near (< 3 miles) the allotment boundary and may have a territory that includes the Cross V Allotment, however data is currently incomplete. There is no denning or depredation activity reported for this allotment (PR, #26).

As defined in the ESA §10(j) rule for the Mexican gray wolf, “disturbance causing land use activity” means any land use activity that the USFWS determines could adversely affect reproductive success, natural behavior, or survival of Mexican gray wolves. However, the following activities are specifically excluded from this definition under the ESA §10(j) rule for the wolf:

1. Legally permitted livestock grazing and use of water sources by livestock;
2. Livestock trailing or drives (only if no reasonable alternative route or timing exists);
3. Vehicle access over established roads to private property and to areas on public land where legally permitted activities are ongoing (only if no reasonable alternative route exists);
4. Use of lands within the national park or national wildlife refuge systems as safety buffer zones for military activities;
5. Prescribed fire and associated management actions (except in the vicinity of wolf release pens); and

6. Any authorized, specific, land use that was active and ongoing at the time wolves chose to locate a den or rendezvous site nearby.

On the Cross V Allotment, a determination of “**not likely to jeopardize**” has been made for the Mexican gray wolf in compliance with the criteria identified in the document “Framework For Streamlining Informal Consultation For Livestock Grazing Activities (PR, #29). The U. S. Fish and Wildlife Service concurred with this determination in a letter dated September 11, 2007 (PR, #30).

Even though it has been determined that continuation of current management will not jeopardize the Mexican gray wolf the Forest Service has additional responsibilities for recovery under the Endangered Species Act (ESA).

Mexican Gray Wolf Recovery under 7(a)(1): The USDA Forest Service, including the Gila National Forest, is a signatory of a Memorandum of Understanding (MOU) (PR, #5) between all government agencies responsible for Mexican gray wolf recovery. The Southwestern Region of the Forest Service, including the Gila National Forest, is a key member of the Adaptive Management Oversight Committee (AMOC) which articulated “standard operating procedures” (SOP), including SOP 11 and 13 which deal with the control of wolves and procedure for investigating livestock depredation (PRs, #3 and 6).

The AMOC completed the Mexican Wolf Blue Range Reintroduction Project 5-Year Review in 2005 as a requirement of the Final Rule to determine whether, and how, to modify the Reintroduction Project. No recommendation was proposed which directed additional on-the-ground management actions to be performed by the Forest Service (PR, #8).

No depredations have occurred within or near the Cross V Allotment. If depredations do occur the Reserve Ranger District will follow the recommendations to address conflicts provided in the “Framework For Streamlining Informal Consultation For Livestock Grazing Activities” (PR, #7). The Reserve Ranger District will continue to work with the affected livestock permittee and the Mexican Wolf Field Team to arrive at a solution. Examples of additional actions that may be taken include placing temporary restrictions around a wolf den site, amending Annual Operating Instructions to change pasture rotations to reduce conflicts, rendering livestock carcasses unpalatable, etc.

Sensitive Wildlife, Plants, and Fish

Sensitive species are defined as “those plant and animal species identified by a Regional Forester for which population viability is a concern, as evidenced by: (a) significant current or predicted downward trends in population numbers or density, or (b) significant current or predicted downward trends in habitat capability that would reduce a species’ existing distribution (FSM 2670.5(19)).” It is the policy of the Forest Service regarding sensitive species to: (1) assist states in achieving their goals for conservation of endemic species; (2) as part of the National Environmental Policy Act process, review programs and activities, through a biological evaluation, to determine their potential effect on sensitive species; (3) avoid or minimize impacts to species whose viability has been identified as a concern; (4) if impacts cannot be avoided, analyze the significance of potential adverse effects on the population or its habitat within the area of concern and on the species as a whole (the line officer, with project approval authority, makes the decision to allow or disallow impacts, but the decision must not result in loss of species viability or create significant trends toward Federal listing); and (5) establish management objectives in cooperation with the state when projects on National Forest System lands may have a significant effect on sensitive species population numbers or distributions. Establish objectives

for Federal candidate species, in cooperation with the U.S. Fish and Wildlife Service and state of Arizona (FSM 2670.32).

Affected Environment

The Cross V Allotment was evaluated to determine which USFS R3 Sensitive Species (mammals, birds, amphibians, reptiles, fish, insects, snails, and plants) or suitable habitat may be present in or adjacent to the project area. It was determined that 14 animal, insect, or plant species either has habitat or is suspected of occurring or it is unknown but there may be habitat present (Table 9). All other sensitive species listed within Region 3 Sensitive Species List either clearly do not occur or the Proposed Action (PA) will have no impact on the species (PR, #34).

Table 9. Sensitive Animal, Insect, or Plant Species that May Occur or have Habitat within Cross V Allotment.

Species	Scientific Name	Species	Scientific Name
Arizona toad	<i>Bufo microscaphus</i>	Botta’s pocket gopher	<i>Thomomys bottae aureus</i>
Apache northern goshawk	<i>Accipiter gentilis</i>	white-nosed coati	<i>Nasua narica</i>
American peregrine falcon	<i>Falco peregrinus anatum</i>	Villous groundcover milkvetch (Plant)	<i>Astragalus humistratus var. crispulus</i>
Gray vireo	<i>Vireo vicinior</i>	Wooton’s hawthorn (Plant)	<i>Crategus wootoniana</i>
Dashed ringtail (Insect)	<i>Erpetogomphus heterodon</i>	Yellow lady’s-slipper (Plant)	<i>Cypripedium parviflorum var. pubescens</i>
Spotted bat	<i>Euderma maculatum</i>	Mogollon hawkweed (Plant)	<i>Hieracium brevipilum</i>
Allen’s lappet-browed bat	<i>Idionycteris phyllotis</i>	Davidson’s cliff carrot	<i>Pteryxia davidsonii</i>

The determination for all species that may be possibly affected is that the Proposed Action may impact individuals, but will not cause a trend toward federal listing or affect the viability of any of the species (PR, #34). This determination is based on the design of the Proposed Action that limits utilization (from both wildlife and livestock) to conservative use (31 to 40 % or less for herbaceous forage and not more than 25% of riparian woody seedlings and saplings being heavily hedged), use of waterlots that will control access to waters which will assure better livestock distribution, and a deferred rotation grazing system to provide growing season rest following use for forage plants that will maintain satisfactory vegetative and watershed conditions (see *Alternatives Considered*, pg 15).

Cumulative Effects (Threatened, Endangered, and Sensitive Species):

Cumulative effects include the incremental effects of actions likely to occur in the same area or in adjacent areas in the past, present, and reasonably foreseeable future. The following is an analysis of potential cumulative effects:

Road maintenance could affect watershed condition. Well maintained roads prevent erosion, help to keep human traffic on established roads, and prevent vegetative growth on roadbeds. No new roads are proposed for this assessment. The Forest is currently analyzing roads as part of the 2005 Travel Management Rule, and roads will be designated motorized or non-motorized. None of these actions would measurably influence the effects described in this assessment for livestock grazing alternatives.

Thinning pinyon-juniper via fuelwood harvest within the watershed would result in a less dense canopy cover. This would benefit herbaceous plant growth and litter would change from needle cast to living plants. Anticipated levels of this activity are at or below historical levels. Effects on dependent species would be less than formerly experienced, within the range of natural variability, and would follow appropriate guidelines to protect species richness.

The allotment falls within a NM Department of Game and Fish Game Management Unit. Management is based on specific comprehensive plans for game management units, public demand, Commission direction and agency funding. The Department has few current comprehensive plans for hunted wildlife. Department management of wildlife populations can influence habitat conditions outside of anticipated changes in livestock management and stocking rates.

Wildfires, prescribed fires, and fire suppression activities within the watersheds are expected to continue at recent historical levels. Fires, particularly on a large scale, alter wildlife habitat use patterns. Initial loss of habitat may drive animals into adjacent areas straining available resources. As the burned area recovers, it often becomes a magnet for wildlife as it offers early seral species not available elsewhere in the habitat. Meaningful movement of wildlife into or out of the allotment could intensify or negate anticipated changes in habitat conditions.

Changes in livestock numbers and management on allotments within the watershed(s) have and will continue to alter patterns of wildlife use and range condition. As new allotment management plans come on line vegetative and watershed conditions will improve.

Maintenance of existing stock tanks on the Cross V Allotment may not continue with the No Action alternative, but would continue with the Proposed Action Alternative. Tank maintenance would take place locally and be of short duration. The areas involved would be small compared to the overall allotment. Short-term disturbance of wildlife is likely, but would not be to the extent to cause permanent changes in habitat use patterns.

Planned or likely to occur actions applicable to this assessment are within the range of actions that have occurred in the past and in combination with any of the alternatives are not predicted to markedly change habitat conditions from that predicted in this assessment for Federally listed species or Region 3 sensitive species. These actions would likely create short-term disturbances to wildlife but would not be to the extent that permanent changes in habitat use patterns would occur. None of these actions would measurably impact the effects described in this assessment for livestock grazing alternatives.

Management Indicator Species (MIS)

Twenty-six Management Indicator Species (MIS) were designated in the 1986 Land and Management Plan for the Gila National Forest (USDA 1986). MIS were selected based on what was thought to be their ability to indicate changes in habitat and/or ecosystems that are related to land management activities (e.g., grazing, fire management, roads, water developments, etc.). Since 1986, forest management emphasis has changed from timber and range management to restoring fire-adapted ecosystems, therefore the 1986 MIS list was amended to reflect current research on indicator species and current management emphases. The current MIS list consists of 10 species representing nine habitat and/or vegetation types (PR, #32).

MIS are addressed in order to implement National Forest Management Act (NFMA) regulations. They are selected because their population changes are believed to indicate the effects of management activities (36 CFR 219.19(a)(1)). The MIS approach is designed to function as a means to provide insight into effects of forest management on plant and animal communities. Species are selected to represent several categories, such as commonly hunted or fished species, non-game, and threatened and endangered species (TES). They may be used as a tool for assessing changes in specialized habitats, formulating habitat objectives, and establishing standards and guidelines to provide for a diversity of wildlife, fish, and plant habitats.

Population trend is most appropriately addressed at scales above the project level. Many of the selected Management Indicator Species occur and range far beyond a local scale such as a project analysis area. Individuals, family groups, or herds such as elk, annually use areas much larger than the project level and population trend must be examined on a much larger scale to be meaningful. Forest wide has been conducted for each MIS species and is incorporated as part of this analysis (PR, #4). For NFMA implementation, the appropriate scale is that of the Gila National Forest. Evidence from long-term censuses suggests that few natural populations or communities persist at or near equilibrium on a local scale. At a site-specific project level, there is a great deal of fluctuation in wide ranging populations. For most species, it would be technically and practically inappropriate to conduct population trend sampling at the scale of individual projects.

Project Level Analysis: Out of 10 forest-wide Management Indicator Species only five occurred or had habitat within the Cross V Allotment: mule deer, plain titmouse, northern goshawk, Mexican spotted owl, and hairy woodpecker. Due to the relatively small scale of the proposed project (<1% of total Forest area), meaningful population level trends for the identified species cannot be determined. These three species were selected and analyzed within the context of a forest wide analysis which documents status and population trends (PR, #32).

Mule Deer

Mule deer are an indicator of desert shrub and pinyon-juniper/shrub oak woodland types. There is no desert shrub or shrub oak woodlands in the allotment. There are an estimated 8,841 acres of pinyon-juniper woodland indicator habitat in the allotment.

Livestock grazing as proposed would result in lesser amounts of forage and browse available for mule deer compared to no livestock grazing although the existing quantity and quality of pinyon-juniper indicator habitat would be maintained. Livestock grazing as proposed would have no measurable effect on the downward Forest-wide trend of mule deer (PR, #32).

Plain Titmouse

The plain titmouse is an indicator of pinyon-juniper/shrub oak woodland types. There is no shrub oak woodland indicator habitat in the allotment. There are an estimated 8,841 acres of pinyon-juniper woodland indicator habitat in the allotment. At various times since 1989, personal observations of juniper titmice have been made in pinyon-juniper and oak woodlands on the Reserve Ranger District including the woodlands in the allotment. Monitoring on the Gila National Forest has shown that plain titmouse population levels have remained stable.

Limiting factors for the plain titmouse include cavities in snags and hollow trees. Livestock grazing as proposed would not decrease snag densities, prevent recruitment of new snags and would not alter the quality or quantity of indicator habitat and would have no measurable effect on the stable Forest-wide trends of plain (juniper) titmice.

The Proposed Action would have no measurable effect on the stable Forest-wide trend of plain (juniper) titmice as they would not decrease snag densities, prevent recruitment of new snags, or change the existing quantity or quality of indicator habitat (PR, #32).

Northern Goshawk

The northern goshawk is an indicator of ponderosa pine. There are an estimated 4,315 acres of ponderosa pine indicator habitat. At various times since 1989, personal observations of northern goshawks have rarely been made on the Reserve Ranger District. Northern goshawks have not been observed during field reviews in the allotment. Geo-Marine Inc. has observed goshawks on the District during daytime follow-up surveys for Mexican spotted owls but has not found any nesting goshawks.

There has been no discernible population trend on the District. Monitoring on the Gila National Forest has shown that northern goshawk population levels have remained stable. The allotment contains suitable goshawk nesting habitat primarily in and near the 113 acres of Mexican spotted owl protected mixed conifer habitat and 220 acres of Mexican spotted owl mixed conifer restricted habitat in the allotment. The ponderosa pine and mixed conifer stands, pinyon-juniper woodlands, and grassland edges within the allotment contain bird and small mammal prey that are sufficient to support nesting goshawks. Management for the Mexican spotted owl takes precedence over the goshawk in the estimated 333 acres of protected and restricted habitat that occurs in the allotment.

Goshawks prefer to forage in closed canopy forests with moderate tree densities. Closed canopy forests have a limited understory herbaceous component and receive minimal to light livestock use. Goshawks take prey from openings, although they usually hunt these areas from perches near the edge. Grazing affects avian (e.g. songbirds) and small mammal abundance and species composition in various vegetation types, depending on grazing intensity, livestock impacts to physical land characteristics, and the degree to which the vegetative community is altered. Grazing by livestock and other herbivores alters both the structure and species composition of grass, forb and shrub layers, which modifies goshawk foraging opportunities. Depending on prey species, responses to grazing intensities are variable ranging from unresponsive, to uncertain, to negative, to beneficial. Excessive forage utilization has been identified as a threat or limiting factor for this species.

With the conservative (31-40%) grazing utilization standards established as part of the Proposed Action, the residual biomass would provide the herbaceous vegetation necessary for

cover and food for prey species that utilize the herbaceous understory and would support prescribed natural and ignited fires that would reduce the risk of catastrophic wildfire in the Forest. Livestock grazing as proposed would result in lesser amounts of herbaceous vegetation for some prey species as compared to no livestock grazing. There should be no overall reduction in prey species diversity. The existing quantity and quality of indicator habitat would essentially be maintained. Livestock grazing as proposed would have no measurable effect on the stable Forest-wide trends of northern goshawks (PR, #32).

Mexican Spotted Owl

In accordance with criteria identified in the document “Framework for Streamlining Informal Consultation for Livestock Grazing Activities” all of the following criteria were met leading to a determination of May Affect, Not Likely to Adversely Affect (See discussion under “*Threatened and Endangered Wildlife, Plants, and Fish*” Section, pg 24).

Hairy Woodpecker

The hairy woodpecker is an indicator of ponderosa pine and mixed conifer snag component. There are an estimated 4,315 acres of ponderosa pine and 332 acres of mixed conifer indicator habitat in the allotment that contain varying numbers of snags per acre.

At various times since 1989, personal observations of hairy woodpeckers have been made in the ponderosa pine and mixed conifer stands on the Reserve Ranger District and in the ponderosa pine and mixed conifer stands in the allotment. Although fluctuations have been noted there has been no discernible population trend on the District. Monitoring on the Forest has shown a small decline in the detection of hairy woodpeckers. Population trends for this species are estimated to be slightly down to stable. The hairy woodpecker is a cavity dependent species that feeds primarily on insects in trees.

The Proposed Action would have no measurable effect on the slightly down to stable Forest-wide trend of hairy woodpeckers as they would not decrease snag density, prevent recruitment of new snags, or change the existing quantity or quality of indicator habitat (PR, #32).

Migratory Bird Species

Within the Gila National Forest, species likely to occur within or near the Cross V Allotment range from rare/uncommon summer and winter residents to uncommon/fairly common/common seasonal or permanent residents or transients. Their preferred habitat types range from grasslands to open- to closed-canopied ponderosa pine and mixed conifer forests to open- to closed-canopied pinyon-juniper woodlands and riparian areas. Depending on species, they consume a variety of invertebrates, insects, fruits, seeds, cones, small mammals and other vertebrates, as well as carrion (PR, #33).

New Mexico Breeding Bird Survey Route #69 is located south of the Cross V Allotment in the Negrito Creek 5th code watershed where part of the allotment is located. A total of 76 migratory birds have been documented along this route. Between 1993 and 2005, an apparent downward trend occurred for 7 species, a stable trend occurred for 27 species, and an upward trend occurred for 22 species. For an additional 20 species, only one or two occurrences were documented or no information was available (PR, #33).

Ungulate grazing can directly and indirectly impact habitat for migratory birds, especially those that depend on herbaceous vegetation. Ungulate grazing can affect winter bird densities by reducing grass seed production and when excessive, can at least temporarily remove all residual thermal and hiding cover needed by ground nesting birds. Long-term overgrazing can create undesirable shifts in succession with loss of habitats in the more advanced successional stages, and reduce floral diversity needed by some bird communities. Excessive grazing also decreases the frequency and intensity of fire by reducing fine fuels (PR, #33).

The design criteria of the Proposed Action limits utilization (from both wildlife and livestock) to conservative use (31 to 40 % or less for herbaceous forage and not more than 25% of riparian woody seedlings and saplings being heavily hedged), uses waterlots that will control access to waters which will assure better livestock distribution, and uses a deferred rotation grazing system that will provide growing season rest following use for forage plants. These criteria will maintain satisfactory vegetative and watershed conditions (PR, #33) (also see *Alternatives Considered*, pg 15).

If livestock grazing as proposed were implemented, bird species that may respond negatively are those that are dependent on herbaceous ground cover for nesting and/or foraging. Cavity-nesters are least likely to be affected and other bird species would vary in their responses depending on the particular plant community affected. Any negative direct or indirect effects associated with the conservative forage utilization standards would not lead to a loss in viability or cause a trend toward federal listing of migratory birds (PR, #33).

Past and present activities within the watersheds have maintained the watersheds in satisfactory to optimum conditions and the continuation of the current grazing management is expected to maintain these conditions. Reasonably foreseeable activities are not expected to negatively impact watershed, soil, and riparian conditions nor are they anticipated to degrade stream characteristics and water quality.

In conjunction with past, present and reasonably foreseeable future management activities, implementation of the proposed action for the Cross V Allotment would not result in a trend toward federal listing or loss of viability of any migratory birds (PR, #33).

Social and Economic Concerns

Ranchers contribute to the social structure of communities around the allotments by providing some direct and indirect jobs for residents of those communities, revenues for county, city, and Federal governments, and the lifestyle associated with ranching for their family, their employees and other people associated with ranching. The number of people involved in ranching today in Sierra County is very low compared to the rest of the population.

Domestic livestock grazing contributes to the livelihood of permittees as well as to the economies of local communities and counties. A total of 50 cattle, cow/calf pairs are authorized on the Cross V Allotment and the economic effect on the local economy are small. The permittee directly contribute revenues to Catron County through property taxes on private land.

Social Concerns

No Action or No Grazing Alternative: The No Grazing Alternative will eliminate a source of income and possibly a way of life for the Cross V Allotment permittee. This may cause conflicts within the permittee's family and the local community. Planned livestock grazing will not be used to meet the overall biological, social, and economic objectives.

Proposed Action Alternative: Continuing with current stocking levels should not affect and, in fact, should help meet the economic and social objectives and the economic feasibility of the Cross V Allotment's permittee. Soil and watershed restoration is key to meeting the overall biological, social, and economic objectives. Project design of a planned livestock grazing system with adaptive management is one of the ways to meet these objectives. The number of livestock authorized through the permit will not change however the actual numbers from year to year may vary based on climatic conditions and the need to restore impaired and/or unsatisfactory soil conditions. Adaptive management is currently being practiced and numbers of livestock have recently been reduced as evidenced by the permittee taking non-use following the Wilson Fire. Therefore, there will be little change (if any) from what is currently being practiced.

This alternative will maintain a viable ranch operation, thereby maintaining the incomes of the permittee and any employees. As long as the ranch continues to operate the permittee and any employees will help perpetuate the customs, traditions, and lifestyle long associated with cattle grazing. This, in turn, will contribute rural sense of the community in Catron County, New Mexico.

Local and Federal Economy

This economic analysis provides a relative comparison of economic effects on the permittee, Forest Service and local community between specific alternatives. This analysis is not intended to portray actual, complete, and accurate economic effects. Since the cost and benefits figures used in the analysis do not reflect actual permittee economic data and display only some of the many factors involved in ranch operations, negative values should not be interpreted to indicate that a particular permittee is actually losing money. All values are used to compare alternatives against other alternatives rather than to predict whether a particular ranch operation would be profitable under a particular alternative. Values in the tables are estimates based upon regional averages and the assumption that the allotment is stocked to the permitted number of livestock.

The Proposed Action Alternative does not change the current stocking level. Therefore, there is no change in the amount of income (or losses) to the Forest Service, permittee, or the County. For the no action alternative there will be a loss of income that is currently based on 50 head of livestock, yearlong. If there is no grazing Catron County and the Forest Service will lose revenues from grazing fees and taxes. It is estimated that for every 100 head of cattle there will be approximately 1.14 jobs within the County. Continuing with 50 head there will be 0.57 jobs which will not change from what is already occurring. The action alternative would maintain the Cross V Allotment ranch as a small business contributing to Catron County's economy and County tax base. This would help provide for community stability by preserving a small business ranch. Maintenance of this ranch would maintain the current property tax base and the current level of expected services from the County. The no action alternative would eliminate these benefits.

Other

Environmental Justice

Environmental Justice On February 11, 1994, President Clinton issued Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations." This executive order was designed to focus the attention of Federal agencies on the human health and environmental conditions in minority and low-income communities. It requires

Federal agencies to adopt strategies to address environmental justice concerns within the context of existing laws, including NEPA. The goal of environmental justice analysis is not to shift risks among populations, but to identify potential disproportionately high and adverse effects, and to identify alternatives that may mitigate these impacts. There were few effects expected to occur to minority populations and low-income populations from either of the alternatives. The no grazing alternative is expected to negatively affect the ranchers and local economy that depends on the rancher's expenditures for economic survival. This includes employees of the ranches, as well as providers of goods and services that ranchers use on a regular basis.

Recreation

FS Road 49 runs north from NM 12 traversing the allotment from south to north with several secondary roads. It is the primary access to this part of the District. There are no developed recreational sites or trails. There is dispersed recreation in the form of hunting, hiking, camping, etc. primarily in the semi-primitive motorized areas outside of the roadless area.

The allotment outside of the roadless area is in a Recreation Opportunity Spectrum (ROS) of Semi-Primitive Motorized with the area within the roadless area being Semi-Primitive Non-Motorized. Because there is no new road construction proposed in any alternative, it is anticipated that there is no effect from grazing activities on the ROS within the allotment. The amount of distress expressed by recreation users appears to dramatically increase as the utilization levels increase far in excess of any alternative identified. There have been no documented conflicts with grazing and recreational use in this area in the past. None of the proposed alternatives are considering excessive utilization, so little to no conflict with recreation users is anticipated by this proposal.

There is approximately 5,540 acres in the west side of Devils Canyon and the northwest corner of South Pastures that is part of Roadless Area No. 122. No new road construction or mechanical disturbance will occur as part of this decision therefore there will be no change in roadless character.

There are no system trails within or adjacent to the allotment. No new system trails are anticipated to be constructed currently or within the foreseeable future. There are no direct, indirect, or cumulative effects anticipated to the trail resource by any proposed alternative.

There are no designated Wilderness acres within the allotment. No indirect, direct or cumulative effects are anticipated for any proposed alternative.

Air Quality

Air quality across the Gila National Forest is currently impacted by emission generating smelters established south, southwest and west of the Allotment, which are the directions from which the winds blow during most of the year. These smelters are large sources of sulfur dioxide and particulates. In addition to the smelters, several coal-fired power plants are located in the same upwind areas. These power plants emit sulfur dioxide, nitrogen oxides and particulates. Four very large power plants are situated north and north-northwest of the project area, including the Cholla Plant (Joseph City, AZ), the Four Corners Plant, the San Juan Plant (Farmington, NM), and the Navajo Plant (Page, AZ). These four power plants may affect air quality during periods in which winds are from those directions, primarily during the winter season. Currently, the Air Quality Bureau of the New Mexico Environment Department has not designated any airsheds in or around the Gila National Forest as being in non-attainment of National Ambient Air Quality Standards (PR, #31).

The Gila Wilderness Area Class I Airshed is certified for visibility impairment due to regional haze. The Cross V allotment is approximately 22 miles north of the Gila Wilderness's northern margin (PR, #31).

Localized conditions that may affect air quality on the allotment include smoke generated from fire, including burns related to wildland fire, wildland fire use fires, and prescribed burns. This smoke would be intermittent, transient, and having different source locations every year. Some fires may generate large volumes of smoke for a brief period of time (PR, #31).

Any dust generated by livestock activities is expected to stay within the analysis area, as fugitive dust settles out relatively quickly. The expected overall impacts are negligible, as the source is limited to short-term pulses (PR, #31).

Heritage Resources

In compliance with Section 106 of the National Historic Preservation Act (NHPA), the effects of continuing current management were evaluated and; a determination of No Adverse Effect was made, and submitted to the New Mexico SHPO (PRs, #39 and 43). In addition, a scoping letter was mailed to approximately 75 state, federal, tribal governments, non-government organizations, and individuals (PRs, #14-15). No issues regarding archaeological sites or historic properties or areas were identified as a result. Because this project will have No Adverse Effect on cultural resources and no issues were identified regarding Archaeological sites or historic properties or areas, there is no extraordinary circumstance with regard to this resource.

Chapter 4 - Consultation and Coordination

The Forest Service consulted the following individuals, Federal, state and local agencies, tribes and non-Forest Service persons during the development of this environmental assessment:

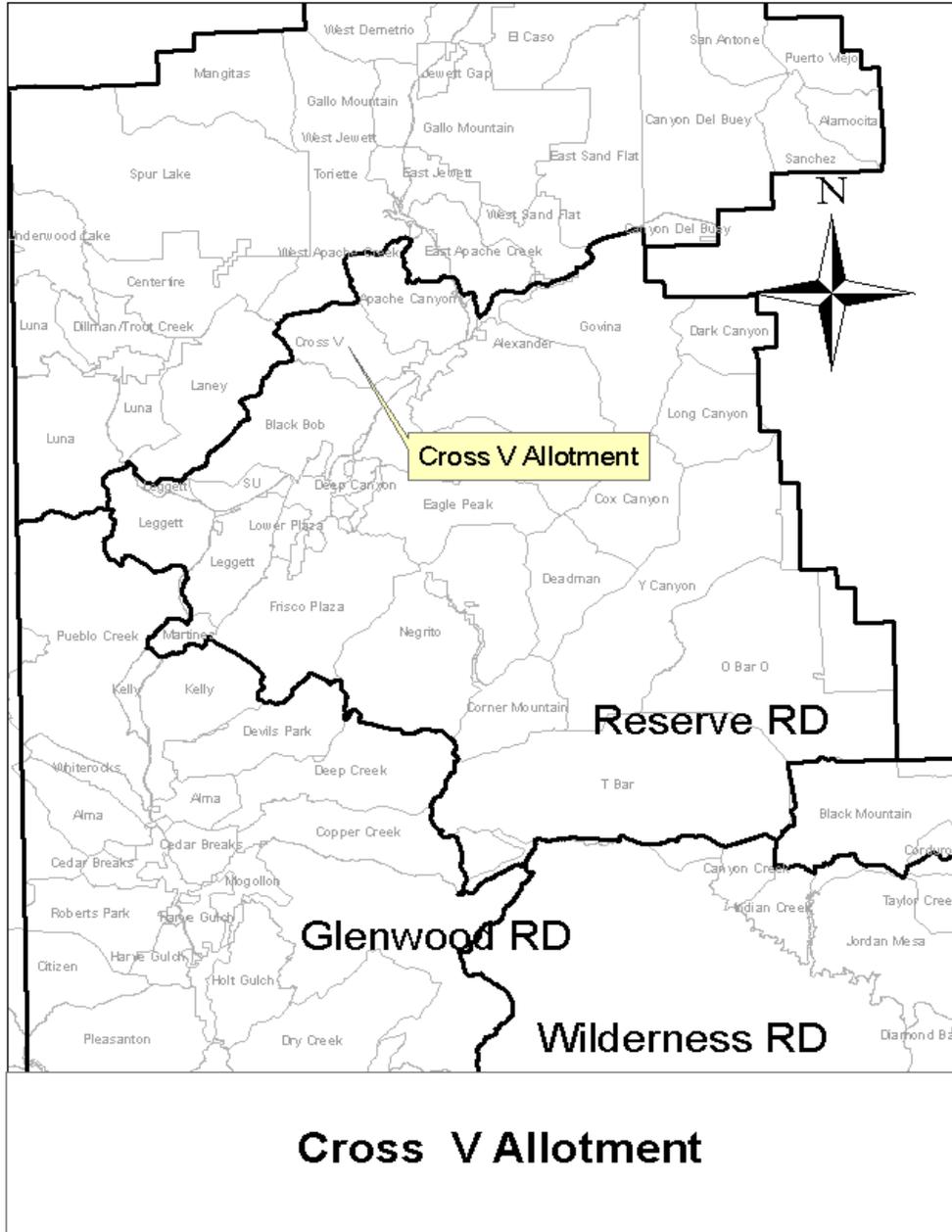
ID TEAM MEMBERS:

Keith Menasco, NEPA Team Leader and Wildlife Biologist, TEAMS EU
Jesarey Barela, Range Staff, Reserve RD
Joe Anderson, Wildlife Staff, Reserve RD
Melinda Benton, Wildlife Staff, Glenwood RD
Patricia Gibson, Archeologist, Gila National Forest
Jenny Fryxell, Hydrologist, TEAMS EU

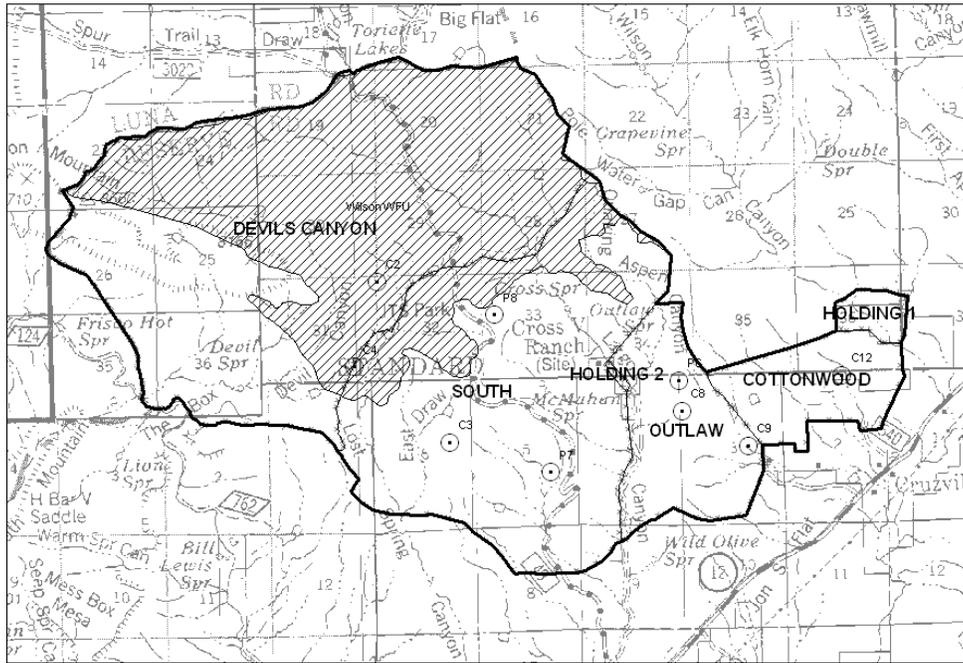
FEDERAL, STATE, AND LOCAL AGENCIES:

US Fish and Wildlife Service
New Mexico State Historic Preservation Office
New Mexico Department of Fish and Game

Appendix A



Map 1. General Location Map



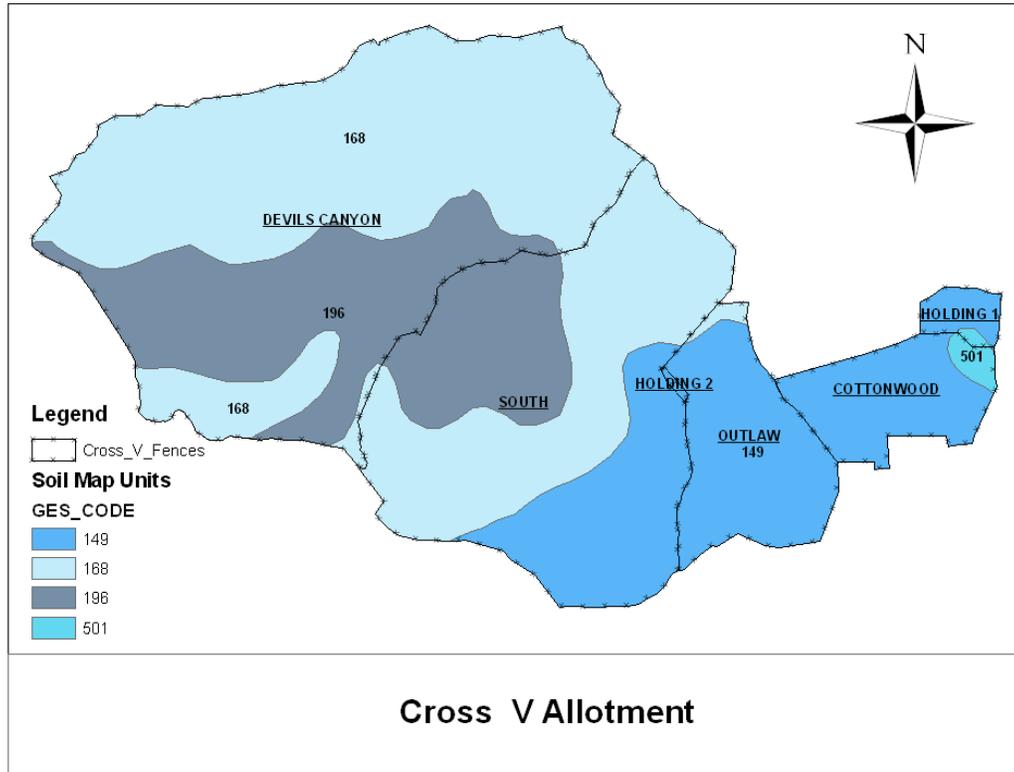
Legend

- Transect Locations
- ▨ Wilson Fire

Cross V Allotment



Map 2. Cross V Allotment Map



Map 3. GES soil classifications, Cross V Allotment.