Environmental Assessment

Miners Camp Pipeline

And

Storm Canyon Fence line

Globe Ranger District, Tonto National Forest Gila County, Arizona

T3N., R16E., Sec 8 T4N., R16E., Sec 4, 5, 6, 8, 31, 33 Gila and Salt River Meridian

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Table of Contents

CHAPTER 1 – PURPOSE AND NEED	2
Document Structure	2
Purpose and Need for Action	2
Management Direction	4
Decision Framework	5
Public Involvement	5
Issues	5
CHAPTER 2 - ALTERNATIVES, INCLUDING PROPOSED ACTION	5
Alternatives	6
Alternative 1 - No Action	6
Alternative 2 - Proposed Action	6
Management Objectives	7
Comparison of Alternatives	10
CHAPTER 3 - ENVIRONMENTAL CONSEQUENCES	11
Rangeland Management	11
Cumulative Effects	15
Consequences Related to Significant Elements	15
CHAPTER 4 - CONSULTATION AND COORDINATION	17

CHAPTER 1 – PURPOSE AND NEED

Document Structure

Forest Service has prepared this Environmental Assessment (EA) in compliance with National Environmental Policy Act (NEPA) and other relevant Federal and State laws and regulations. Supporting documentation, including more detailed analyses of project area resources, is on file in project planning record located at Globe Ranger District of Tonto National Forest in Globe, Arizona.

The document is organized into the following sections:

- Purpose and need information on project proposal, purpose and need for project, scoping.
- Description and comparison of alternatives, including the proposed action
- Environmental consequences environmental effects of implementing project
- Agencies and people consulted list of people and agencies consulted

Purpose and Need for Action_____

This environmental assessment documents existing conditions on Sedow Grazing Allotment (Sedow) within Tonto National Forest, expected effects of proposed range improvement projects, and how this action will contribute to desired conditions documented in Tonto National Forest Land Management Plan (LMP, 1985 as amended).

Currently, the planning area is designated as Management Area 2F (general management). Hunting, dispersed camping, hiking, wildlife viewing and livestock grazing are typical activities across project area. Developed, intermittent, ephemeral and perennial live water sources provide water to many classes of plants and animals.

The purpose of this action is to improve livestock distribution though fencing and placement of an additional water source. Improved livestock distribution will maintain and enhance proper management of watershed. Water project would facilitate continued livestock distribution and provide additional water for wildlife. The need for additional water is to remove heavy livestock pressure from limited existing water sources.

Background____

Existing Conditions

<u>Soils.</u> Current soil condition shows 2,850 acres (38%) in satisfactory condition, 703 acres (10%) in impaired condition, 3,478 acres (47%) in unsatisfactory condition and 384 acres (5%) naturally unstable. The main reason for the unsatisfactory soil condition ratings are excessive erosion in pinyon/juniper woodlands in the eastern part of the pasture and in turbinella oak/catclaw chaparral in northwestern part of pasture.

<u>Vegetation</u>. Storm canyon pasture is 7,426 acres with 78% of overstory vegetation consisting of pinyon, juniper, and turbinella oak. Only 22% is redberry juniper grasslands, which is mixed throughout tree and shrub dominated vegetation. Presently, livestock congregate on only a few areas which results in over utilization of vegetation across roughly ten percent of pasture and underutilization of vegetation in remainder of pasture.

Range capacity. Pasture distribution is poor due to lack of water and growth of chaparral species.

Eight water sources currently exist in pasture. Five are located in traps and three located to serve livestock and wildlife in other pasture locations. Southern portion of Storm Canyon pasture lacks enough water facilities to properly distribute cattle.

Brushy, little walnut, walnut, and Storm Canyon springs are all developed water sources. Brushy, little walnut and walnut are located on the northeastern end of pasture, within traps. Brushy spring's trough is located in its drainage. Walnut spring is functional but pipes and troughs show significant leakage. Storm Canyon spring is only developed water in southern end of pasture, with trough located in drainage.

Collected rangeland data in Storm Canyon, near proposed location of pipeline and fence indicate that since 1961 there has been an increase of shrubs, specifically turbinella oak (*Quercus turbinella* Greene) and snakeweed. Since 2002, cattle numbers have increased to currently 92% of permitted numbers.

Southern portion received a partial prescribed burn in 2010 with resulting impact on chaparral species.

<u>Riparian condition</u>. There are two reaches of Yankee Joe Canyon in this pasture that support riparian vegetation. In 2011 the downstream reach supported mostly pole size cottonwoods, false indigo, and weedy and upland species on the banks and floodplain. There is also a high frequency of tamarisk.

In 2011 the upstream reach had thick patches of false indigo. Pole size cottonwoods and Goodding's willows are spaced out along the channel. Also present were a few old cottonwoods, some sycamore, walnut, seep willow and a couple tamarisk. Banks are lined with thick desert baccharis. There is little woody regeneration and no deergrass.

Storm Canyon originates in southwest corner of Storm Canyon Pasture and flows north 3.1 miles through pasture, then west onto Hicks/Pikes Peak Allotment. It is mostly an ephemeral stream with perennial or intermittent flow near in-channel springs. Riparian vegetation occurs upstream of Storm Canyon Spring, along FR 2321.

Walnut Spring is located in an unnamed tributary to Yankee Joe Canyon that enters near FR 645 crossing. Spring development, consisting of a dam across channel and a drinker, is located in a trap upstream from riparian reach. Reaches in and below trap have evidence of extreme concentrated use, such as mostly bare ground and large Goodding's willows with a shrubby appearance and extremely large leaves, indicative of many years of overuse.

Little Walnut Spring is located in an unnamed tributary to Yankee Joe Canyon that enters near the FR 645 crossing. Spring is developed with a horizontal well in channel and a drinker on terrace near the road. A short reach (about 70 feet long) upstream from the road has been highly impacted by cattle but supports pole size cottonwoods and willows. Upstream, channel steepens and becomes rocky.

Monument Spring is a tributary to Sedal Canyon. Spring is located below FR 645. In 2011 there was a boggy area that supports sedges and rabbit's foot grass, pole size willows and poison ivy. Water continues downstream through a bedrock area that forms a channel. Further downstream, channel widens becoming shallow and sandy, lined with pole size cottonwoods and willows. There is no herbaceous component, no regeneration of tree species, and had been trampled.

Brushy Spring occurs in Sedal Canyon and is fenced in a small trap in southern corner of Brushy Pasture. A field visit showed no channel or bank features, except for one short reach of about 20 feet with defined banks and running water.

Yankee Joe Canyon has no riparian vegetation indicated on riparian map layers.

<u>Wildlife</u>. No federally listed species or critical habitats are present within three miles of project location. Gila monsters and bald eagles, forest sensitive species, may be present at project site. Several types of migratory birds may also be present.

Management Direction

This environmental assessment tiers to LMP which identifies resource goals appropriate for this project.

Management Prescriptions - All Management Areas

Maintain a minimum of 30% effective ground cover for watershed protection and forage production, especially in primary wildlife forage producing areas. Where less than 30% exists, it will be the management goal to obtain a minimum of 30% effective ground cover (Tonto National Forest 40-1).

Management Prescriptions - Management Area 2F

Manage for a variety of renewable natural resources with primary emphasis on wildlife habitat improvement, water quality maintenance and livestock forage production. Manage for a variety of renewable natural resources with primary emphasis on wildlife habitat improvement, water quality maintenance and livestock forage production.

Desired Conditions

Rangeland: Management seeks to optimize production and utilization of forage allocated for livestock use consistent with maintaining environment and providing multiple use for rangelands.

Soils: Protect soil from erosion affects and encourage soil organic matter development.

Vegetation: Generally, reduce shrub and tree presence to allow for production of more grass species. Manage chaparral vegetation types to emphasize production of whitetail deer.

Watershed/Hydrology: Watersheds will be managed so as to improve them to a satisfactory or better condition.

Wildlife: Provide for species diversity, maintain viable populations of existing species, improve habitat for selected species, and manage to increase population levels of threatened and endangered species. In riparian areas across the allotment, regeneration of vegetation to achieve multiple age classes and complex vegetative structure for fish and wildlife habitat is desired.

Proposed Action
The proposed action will divide Storm Canyon pasture to create a new pasture (Miner's Camp) and

supply water through a well, storage tank, pipelines and troughs, into newly developed pasture and adjoining Reveg pasture. See Map 1.

Globe District Ranger for Tonto National Forest will be responsible official. Responsible official will decide whether to adopt and implement Proposed Action, or an alternative to the Proposed Action (including changes to language and content of Tonto National Forest Plan), or whether further analysis is needed through preparation of an Environmental Impact Statement (EIS).

If deciding official determines that there are no significant impacts, decision will be documented in a Finding of No Significant Impact and Decision Notice.

Public Involvement _____

Proposal was listed in Schedule of Proposed Actions. Proposal was provided to public and other agencies for a thirty-day comment period during scoping, starting November 16, 2011.

Scoping document was sent to: 40 individuals, 12 private organizations, 23 representatives from local tribes, 14 state/county/town officials and 1 federal agency. From these scoping activities, 3 responses were received.

Forest Service is required to gather significant and non-significant issues. Forest performed a content analysis on comments received to determine if any significant issues were presented. An issue is defined as a point of disagreement, debate, or dispute with a proposed action based on some anticipated undesirable effect caused by action. Comments were about process, requests for clarification or additional information, or otherwise did not disagree with Proposed Action.

Issues

Significant issues are defined as those directly or indirectly caused by implementing Proposed Action. Non-significant issues are identified as those: 1) outside the scope of Proposed Action; 2) already decided by law, regulation, Forest Plan, or other higher level decision; 3) irrelevant to decision to be made; or 4) conjectural and not supported by scientific or factual evidence. 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)..."

During scoping process, no significant issues were identified.

CHAPTER 2 - ALTERNATIVES, INCLUDING PROPOSED ACTION

This chapter describes and compares alternatives considered for Storm Canyon fence and Miners Camp pipeline project. This chapter presents alternatives in comparative form, in order to delineate differences

between each alternative and provide a clear basis for a choice among options. Mitigation, if employed and monitoring measures incorporated into alternatives are also identified.

Alternatives eliminated from further study_

No additional alternatives were proposed or considered as scoping efforts did not result in identification of significant issues that could not be addressed through project design with mitigation measures.

Alternatives

Alternative 1 - No Action

Under No Action alternative, current management plans will continue to guide management of project area. Storm Canyon fence and Miners Camp pipeline project will not be implemented.

Alternative 2 - Proposed Action

Storm Canyon Fence line

Proposed fence line will divide Storm Canyon pasture, roughly 7,500 acres into a second pasture, Miner's camp pasture, and better distribute cattle through deferred rotational grazing. Labor and materials will access project location using existing Forest Service roads, horseback, or by foot.

Miners Camp Pipeline

All access to pipeline will be made along FR 1014, unless described below.

Fence will be rebuilt surrounding and excluding nearby old miners camp historic site. A proposed windmill, set above well, will be located outside of excluded area. Drill rig would access windmill on eastern portion of exclusion. Access road will be less than one eighth of a mile and brushed to open up road for drill rig and permittee access.

Storage tank will be laid on wood platform above ground, on a 12x12 foot base, rather than disturbing soil with a dozer. A steel trough, set on a 5x5 foot base, will be placed in close vicinity to storage tank.

A second steel trough, set on a 5x5 foot base, will be located near an adjacent archeology site, in adjacent Reveg pasture. Access and maintenance will be by horseback, or on foot, and no disturbance of site will occur.

A third steel trough, set on a 5x5 foot base, is located north of miners camp well off Forest Road 1014.

Mitigation

Disturbing/damaging saguaro, barrel, and pincushion cacti, as well as ocotillo and agave species, will be avoided. If plants are in area of disturbance, they may be transplanted or used for later reclamation efforts. Gila monsters, if encountered, will not be handled. Access and escape ramps will be installed in troughs. Avian nests encountered in trees and shrubs as well as on the surface, will be avoided.

Access road will be used to lay piping when channel is dry. A licensed contractor will drill well. Tonto will be named as well owner on registration: United States of America-USDA-Forest Service-Tonto National Forest.

Management Practices Common to All Alternatives

Management practices include measures to reduce or avoid resource impacts that are incorporated into project design. These measures have been used on previous projects and are demonstrated to be effective at reducing environmental impacts. They are consistent with applicable Forest Plan standards and guidelines.

Soil, Water and Vegetation

Utilization of key upland herbaceous forage plant species will be managed to achieve goal conservative use levels. Objective is to protect plant vigor, provide herbaceous residue for soil protection, and to increase herbage producing ability of forage plants. A utilization guideline of up to 40% use of key species in key areas will be used to achieve this objective.

In riparian areas, allowable use for obligate riparian trees species will be to limit use to < 50% of terminal leaders (top 1/3 of plant) on woody riparian species. Deergrass use will be limited to < 40% of plant species biomass. Emergent species (rushes, sedges, cat-tails, horse-tails) will be maintained at six-to-eight inches of stubble height during grazing period. Utilization will be measured seasonally when livestock are in pasture. Livestock will be moved from critical area or pasture when recommended guidelines are met.

Wildlife

Salt, mineral blocks, or supplements, will not be placed, in or near riparian areas, springs, drainages or at water troughs. All water troughs will be bat friendly (Taylor & Tuttle 2007) and have inside and outside stepped wildlife ramps, and a small outside overflow for smaller wildlife provide the most overall improvement for wildlife and habitat. In livestock water troughs, water will be available for wildlife year-around including non-grazing years, except during freezing winter conditions.

Heritage Resources

Archaeological survey will be conducted prior to construction of any new range improvements and locations selected where impacts to heritage resource sites are avoided.

Existing range facilities (water troughs, corrals, etc.), where cattle regularly congregate, will be periodically inspected to determine whether livestock are causing damage to heritage resource sites.

Salting locations will be placed outside the boundaries of heritage resource sites.

Management Objectives

Management objectives are measurable parameters that can be used to describe attainment of desired conditions. If trends are upward towards stated objective when monitored, then management may be considered effective in moving towards desired condition.

Management objectives for selecting appropriate action are:

- Maintain or improve conditions to at least 30% of effective ground cover for watershed protection;
- Provide water source to improve livestock distribution.

• Reduce shrubs and increase grass

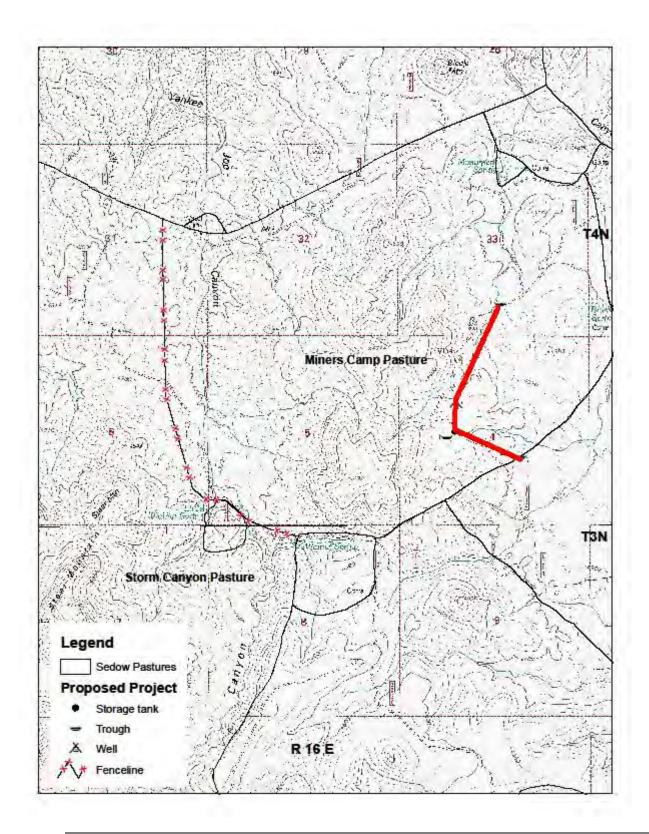
Monitoring

Objective of monitoring is to determine whether Miners Camp pipeline and Storm Canyon fence is properly implemented and actions are effective at achieving or moving toward ecosystem desired conditions.

Effectiveness monitoring includes measurements to track condition and trend of upland and riparian vegetation, soil, and watersheds. Monitoring will be done following procedures described in interagency technical reference and the Region 3 Rangeland Analysis and Training Guide.

Implementation monitoring will occur at any time during grazing year and will include such things as inspection reports, forage utilization measurements, livestock counts, and facilities inspections. Utilization measurements are made following procedures found in Interagency Technical Reference (BLM et al 1996) and with consideration of "*Principles of Obtaining and Interpreting Utilization Data on Southwest Rangelands*" (Smith et al 2005).

Trend monitoring will be done using photo points. One hundred percent surveys would be conducted in spring, until vegetation density increases, using guidelines in McBride and Grove (2002).



Map 1. Storm Canyon Fence, New pastures and Miners Camp Project Area

Comparison of Alternatives_____

This section provides a summary of effects of implementing each alternative. Information in table is focused on activities and effects where different levels of effects or outputs can be distinguished quantitatively or qualitatively among alternatives.

Table 1 – Comparison of alternatives.

Element	Alternative 1 - No Action	Alternative 2 – Proposed Action
30% effective ground cover	Concentrated livestock distribution is expected to affect ground cover, and 30% effectiveness would be more difficult to obtain. Pasture is punctuated with dense juniper savannas and chaparral affects livestock distribution by concentrating livestock into reduced grass habitat.	Water system—Designed to encourage livestock to spread and utilize areas not previously grazed and reduce numbers of livestock and reduce impacts to areas where they were previously concentrated. Fence line—Designed to concentrate grazing pressure into new smaller pastures thereby increasing effective ground cover by improving grass utilization and production
Livestock distribution	Water sources are limited in Storm Canyon pasture and livestock may travel farther to obtain water	Water system—Increased water sources to spread livestock. Fence line—New pasture would help focus livestock on shrub dominated areas.

Reduce Shrub species, increase grass species	Concentrated livestock distribution may decrease grass richness and abundance while shrubs continue to spread and occupy previous grass habitat.	Water system—Directly increase grass richness and abundance indirectly retard some shrub spread into grass habitat. Through increased presence of and dispersion of livestock.
		Fence line—Designed to increase livestock shrub browsing through increased grazing pressure dispersed across smaller pasture. Grass richness and abundance is expected to increase through reduction of shrub patch size and presence.

CHAPTER 3 - ENVIRONMENTAL CONSEQUENCES

This chapter summarizes the physical, biological, social and economic environments of affected project area and potential changes to those environments due to implementation of alternatives. Responses are grouped as direct, indirect, and cumulative effects of the action to the resource described in each affected environment

Rangeland Management

Affected Environment

Proposed project is located within an active grazing allotment. Storm Canyon pasture consists of approximately 7,400 acres located on the Southwestern boundary, sharing common borders with two other allotments. Sedow allotment is managed with a rest rotational grazing strategy. Functional waters in pasture are located in either traps or drainages. Current permitted numbers are at 92% of full capacity, or 9,167 AUMs.

NO ACTION

Directly, no additional disturbance to soils or vegetation will occur. Cattle will continue to be unevenly distributed within pasture.

PROPOSED ACTION

Directly, project construction will cause temporary minor disturbance to ground. Indirectly, moderate improvement to livestock distribution will result with local and addition of more water availability. In the future, trough additions to other pastures, would increase distribution in other pastures. Increased erosion and noxious/invasive weeds may occur due to increased livestock distribution.

Cumulative Effects

Allotment NEPA will be completed in 2013 which will address livestock grazing, prescribed fire, desired ecological conditions and other management tools. Two additional water sources would be added to Miners camp pasture, but potential to further distribute water will increase livestock distribution, especially in other pastures. Potential prescribed burn, analyzed through allotment NEPA, may moderately increase distribution in northwestern and southwestern portion of pasture through reduction of brush and chaparral patches. Miners camp pipeline will increase livestock distribution within miner's camp pasture, which in turn would improve future desired conditions.

Soil, Water and Riparian Vegetation

Affected Environment

Soils

Proposed project is located within Storm Canyon Pasture which consists of approximately 7,400 acres. Proposed fence would divide pasture into an eastern part, Miners Camp Pasture, of about 2,400 acres and a western part, Storm Canyon Pasture, of about 5,000 acres. About half of eastern pasture has soils in unsatisfactory condition due to excessive erosion in pinyon/juniper woodlands and turbinella oak/catclaw chaparral. About forty-five percent of the western pasture has unsatisfactory soils due to excessive erosion in turbinella oak/catclaw chaparral in northern part of proposed pasture.

Water and Riparian Vegetation

Monument spring, is not developed, and has a significant riparian area. A portion is fenced, but to enclose entire riparian area fence would need to be extended. Brushy spring has good riparian species, specifically sedges (Cyperaceae) and Goodding's willow (*Salix gooddingii* C.R. Ball) seedlings. Other species such as coyote willow (*Salix exigua* Nutt.), pole-sized Fremont cottonwood (*Populus fremontii* Wats.) and larger Goodding's willow are present throughout riparian area. Little walnut spring area is heavily shaded by willows and cottonwoods. Walnut spring vegetation is predominately cottonwood and willow. Upper Yankee Joe spring has abundant riparian growth in channel, and has not been developed. Storm Canyon spring currently supports tall willow trees.

NO ACTION

Direct/Indirect Effects

Soils

There will be no direct effects to soils. The indirect effects could be continued uneven distribute of cattle throughout pasture.

Water and Riparian Vegetation

Not providing additional waters in Miner's Camp and Reveg Pastures may necessitate more frequent use of traps which contain streams and riparian areas that are mostly in unstable condition. There would be no direct effects from not building the Storm Canyon fence.

Cumulative Effects

No cumulative effects.

PROPOSED ACTION

Direct/Indirect Effects

Soils

Direct effects to soils will be minor, short-term, and localized to very small areas disturbed by construction. Indirect effects may be slightly better cattle distribution. Since no new waters are being proposed for new Storm Canyon Pasture and resulting pasture is still relatively large despite an addition of a new fence, cattle distribution in this pasture is not likely to change much and changes to soils may not be detectable. In Miners Camp Pasture, an addition of waters and relatively small size may allow for better cattle distribution which may lead to a small improvement in soil conditions. Miner's Camp pipeline trough in Reveg Pasture may improve distribution in that pasture. Most of soils surrounding this trough are impaired or unsatisfactory and a new water source may help draw cattle to already impacted soils. It is difficult to assess the overall impact to the Reveg Pasture.

Water and Riparian Vegetation

No impacts are expected from accessing by road and laying pipeline, if done when channel is dry. Pumping water from well to fill a storage tank to feed three drinkers would not have a measurable impact on water resources if storage tank is filled during winter rains. Providing water away from riparian areas for use by livestock could positively effect of drawing cattle away from riparian areas, but does not assure that livestock's use of riparian areas will be incidental. Additional water could facilitate less frequent use of the traps surrounding new Miner's Camp Pasture and the Reveg Pasture. The additional water will have no effect on riparian areas in the remaining Storm Canyon Pasture, as it will become a separate pasture. Alternative water sources could lead to better cattle distribution (Holechek 1997). However, placing new waters in areas that have received little use may cause new areas of heavy use (McAuliffe 1997).

No impacts are expected to stream channels or riparian areas from building the fence. Providing additional fencing may facilitate better cattle distribution.

Cumulative Effects

Soils

Cumulative effects include a long history of grazing in the area. Other effects include past re-vegetation projects that have introduced non-native grasses.

There would be no additional, measurable impacts to soils.

Water and Riparian Vegetation

There would be no additional, measurable impacts to stream channels or riparian areas.

Wildlife	<u> </u>			

Affected Environment

Riparian wildlife habitats: Based on existing condition descriptions of springs, stream reaches, and riparian areas, overall riparian habitat quality appears to be currently low. Because remnant and emerging native riparian vegetation is present in most of the described riparian habitats, they probably have some recovery potential including improving wildlife habitat quality.

Upland habitats: Currently, upland wildlife habitats in project area are dominated by tree and shrub pinyon/juniper woodlands and turbinella oak/catclaw chaparral vegetation (78%) with a trend of increasing shrubs, primarily turbinella oak and snakeweed. This description and observations indicate that general wildlife habitat quality in project area uplands is low for most species. Although information is limited to general observations, higher wildlife habitat quality for these uplands would include more age and size-class diversity in tree-shrub vegetation, more palatable wildlife browse species, more habitat edges, and a more functional herbaceous habitat layer including more native perennial grasses.

NO ACTION

Direct/Indirect Effects

There are no additional effects on wildlife or habitat because no project actions would be implemented.

Cumulative Effects

There would be no additive cumulative effects from the project on wildlife or habitats because no actions would be implemented.

PROPOSED ACTION

Direct/Indirect Effects

Scope of this project will produce temporary disturbance, affecting various classes of wildlife. Records do not show threatened and endangered species occurring near enough the project area to sustain direct or indirect impact. Records also do not show forest sensitive species in project area but, it is very possible they do occur within project area. Beneficial effects of project will be added water, particularly for the game species such as deer. Occasional elk may at times be present.

Decreased riparian zone and/or wetland habitat at well head may occur, due to water draw down. Ground and surface water dependent resources impacted due to less water availability. Degradation of rangeland condition within vicinity of proposed water developments. Individual songbirds and local habitat may be affected if riparian habitat is lost near well head.

Increased soil erosion at discharge points due to increase livestock and/or wildlife use. Increased sedimentation into watershed at discharge points adjacent to water bodies due to increased livestock use. Noxious weed species may increase affecting wildlife habitat.

Cumulative Effects

Cumulative effects are those that result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions. The affected resources are wildlife species and wildlife habitat. The analysis boundary is extent of a particular species or its habitat throughout its entire range. Past, present, and reasonably foreseeable actions that could affect wildlife species and habitats are: Past, historic grazing and range improvements, fire suppression and prescribed fire, introduction of

non-native species, and roads; Present, current grazing and range improvements, fire suppression, prescribed fire, and fire for resource benefits, OHV based recreation; Reasonably Foreseeable, Salt River EIS a multiple vegetative treatment actions including grazing and related actions, increased OHV based recreation, and roads. Many of these actions contribute both positively and negatively to cumulative effects, for example prescribed fire may have short-term negative effects on individuals of some wildlife species and long-term positive effects on overall quality of habitats. Many actions are also planned to minimize effects to species and habitats and have mitigation measures and best management practices designed to reduce effects caused by implementing project actions. Overall, the proposed action of constructing a fence, dividing one grazing pasture into two smaller grazing pastures, drilling a well and pumping water from it to three water troughs, as described, would have a small additive effect to cumulative effects on wildlife species and habitats.

Environmental Justice

Environmental justice is fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to development, implementation, and enforcement of environmental laws, regulations, and policies. Toward attaining environmental justice for all communities and persons in United States, Executive Order 12898 (February 11, 1994) directed all Federal agencies to evaluate their Proposed Actions to determine potential for disproportionate adverse impacts to minority and low-income populations.

In memorandum to heads of departments and agencies that accompanied Executive Order 12898, the President specifically recognized importance of procedures under NEPA for identifying and addressing environmental justice concerns. This memorandum states that "each Federal agency shall analyze the environmental effects, including human health, economic and social effects, of Federal actions, including effects on minority communities and low-income communities, when such analysis is required by [NEPA]."

Implementation of any alternative evaluated in this EA will not result in adverse impacts to environmental resources and socioeconomic conditions. Therefore, disproportionate direct, indirect, or cumulative adverse impacts on low income or minority populations will not occur.

Cumulative Effects

Cumulative effects are past, present, and reasonably foreseeable future actions that add to direct and indirect effects considered in this EA. These activities and occurrences have contributed incrementally to changes in ecological conditions in project area and may continue to influence conditions in project area over term of project. Foreseeable future actions are those for which a proposed action has been approved or those proposed for NEPA analysis in the future. Other possible future actions are considered too speculative to include in this analysis.

Consequences Related to Significant Elements

In 1978 the Council on Environmental Quality (CEQ) promulgated regulations for implementing the National Environmental Policy Act (NEPA). Regulations (40 CFR 1500-1508) include a definition of "significantly" as used in NEPA. Elements of this definition are critical to reducing paperwork through

finding of no significant impact when an action will not have significant impact on human environment and is therefore exempt from requirement to prepare an environmental impact statement.

Context and intensity of impacts. Context is defined as "The significance of an action must be analyzed in several contexts such as society as a whole (human, national), the affected region, the affected interests, and the locality. Significance varies with the setting (...) in the case of a site-specific action, significance would usually depend upon the effects in the locale rather than in the world as a whole. Both short- and long-term effects are relevant." Intensity is the "... the severity of impact..."

The context of this proposal is limited primarily to allotment and immediate vicinity. In that localized context, this proposal will not pose any significant short- or long-term effects. The relatively small scale of this proposal's effects on land and resources, particularly compared to effects of other activities on allotment, limit proposal's effects to a minor level. No impacts from proposed action have been determined to be severe.

Beneficial and adverse impacts. There are both beneficial and adverse impacts from proposed action, but adverse impacts are insignificant.

Affects on public health or safety. No affects on public health or safety have been identified.

May establish a precedent for future, similar actions. There are no impacts that may establish a precedent.

Related to other actions that are individually insignificant but cumulatively significant. There are no impacts that may be individually insignificant but cumulatively significant.

Effects on historical/cultural resources. No effects were established from archeological clearance.

Effects on T & E species and their habitats. No effect on T&E species or their habitat.

Compliance with Federal, State, local laws. Proposed action and alternatives are in compliance with Federal, State, and local laws.

CHAPTER 4 - CONSULTATION AND COORDINATION

Forest Service consulted with the following individuals, federal, state, and local agencies, tribes and non-Forest Service people during development of this environmental assessment:

ID TEAM MEMBERS:

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Annette Smits, Recreation Sub-Staff

Quentin Johnson, Fire Management Officer

Lynn Mason, Hydrologist

Norm Ambos, Soil Scientist

A. Jamie Wages, Range Specialist

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Arizona Game and Fish Department

U.S. Fish and Wildlife Service

City of Globe/Town of Miami/Town of Superior

Gila County Districts and Chamber of Commerce

Arizona Public Service

Arizona Department of Environmental Quality

Gila County Cooperative Extension

Arizona Department of Transportation

Salt River Project

TRIBES:

Fort McDowell Yavapai Nation

Yavapai-Prescott Tribe

Yavapai-Apache Nation

San Carlos Apache Tribe

White Mountain Apache Tribe

Salt River Pima- Maricopa Indian Community

Hopi Tribe

Pueblo of Zuni Heritage and Historic Preservation

Tonto Apache Tribe

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References

Holechek, Jerry L. 1997. The Effects of Rangeland Water Development on Livestock Production and Distribution. In: Environmental, Economic and Legal Issues Related to Rangeland Water Developments, Proceedings of a Symposium, November 13-15, 1997. Arizona State University College of Law. Tempe, AZ. pp. 38-54.

McAuliffe, Joesph R. 1997. Rangeland Water Developments: Conservation Solution or Illusion. In: Environmental, Economic and Legal Issues Related to Rangeland Water Developments, Proceedings of a Symposium, November 13-15, 1997. Arizona State University College of Law. Tempe, AZ. pp. 310-338.

Rosgen, Dave. 1996. Applied River Morphology. Wildland Hydrology. Pagosa Springs, CO.