ALLOTMENT MANAGEMENT PLAN

FOR THE

PIERCE WASH ALLOTMENT

BLACK MESA RANGER DISTRICT

APACHE - SITGREAVES NATIONAL FORESTS

PERMITTEE NAME _____ DATE: 12-21-18

DISTRICT RANGER _____ DATE: 12/21/18

I. INTRODUCTION

The Pierce Wash Allotment is located north of State Highway 277 northeast of Heber, Arizona within portions of Townships 13N and Ranges 17 and 18E, Gila and Salt River Meridian (G&SRM), Arizona, comprised of approximately 7,700 acres. Elevations range from 6,000 feet in the North to near 6,340 feet in the southern part of the allotment. The terrain is relatively gentle and sloping. Pinyon/juniper dominates the landscape with occasional pine trees in the cooler drainages on the southern portion of the allotment.

This Allotment Management Plan (AMP) shall set forth the objectives, management requirements, improvements needed and monitoring and evaluation standards for the Pierce Wash Allotment as outlined in the Forest Plan and the Decision Notice signed by the District Ranger on March 2, 1999.

II. OBJECTIVES

A. Range Conditions

- The long term goals for range conditions on the allotment in the pinyon-juniper woodland are 10% good, 80% fair and 10% or less in poor on full capacity range. Strive to achieve within 25 to 30 years after full implementation of this AMP.

- The short-term objective to meet the long-term goal is to strive to achieve a 10-15% increase in Fair range condition within 10 years after full implementation of this AMP.

B. Browse

- Browse stands are vigorous and well represented on suitable sites. These stands will be considered healthy when no decadence is apparent, plant vigor is indicated by long leader lengths and growth forms are consistent with natural conditions (e.g. browse not clubbed in appearance and trees are not dwarfed or exhibit shrub form). Objective is to achieve in 10 years after full implementation

- Browse should make up 5 to 15% of the total plant composition and of that percent, 45% should be "A" species and 35% should be "B" species (A, B and C species are specified in 1982 Allotment Analysis Handbook "Species Classification list for trees and shrubs"). Strive to achieve within 25 to 30 yrs after full implementation.

- Increase browse density by 20% above current levels. Strive to achieve with 25 to 30 yrs after full implementation.

C. Watershed and Soils

- In woodland stands where the canopy cover is <20%, there is a 60% ground cover, comprised mainly of perennial herbaceous vegetation. Strive to achieve within 25 to 30 yrs after full implementation.

- In the grasslands on FC range have effective herbaceous ground cover of 80% with the majority of the ground cover comprised of perennial herbaceous vegetation. Strive to achieve within 25 to 30 yrs after full implementation.

D. Wildlife

- Have 30% of the available forage for wild ungulates as per Ari-Pine Resource Area Desired Future Conditions (12/93). Strive to achieve within 5 years.
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III. MANAGEMENT

The Term Grazing Permit will be issued for 85 head of Cow/Calf with a 4-month variable season of use. Yearlings may be authorized, provided that their numbers equate to the same AUM's as the permit.

The desired utilization levels will be as follows: 25% of herbaceous forage species, 20% of terminal buds of riparian shrubs and trees, and 45% on browse species (see monitoring section for more details).

Livestock shall not enter the allotment until the scheduled date identified on the Annual Operating Instructions (AOI), completed each year before livestock are placed on the allotment. The Permittee shall provide at least 5 days advance notice of entering the allotment, the location of entry, and the means by which the livestock will be placed on the allotment. All livestock, including strays shall be removed from the allotment by the last day shown on the AOI.

All livestock must be branded or marked, as identified on the current brand certificates in the Term Grazing Permit.

A request for an extension of the grazing season must be received in writing at least 30 days before the end of the season, which shall state the reason for extension. Excess forage is not automatic grounds for approving extensions. Approval will be determined on resource needs (soil protection, seed crop for next year, etc.) and not based on permittee convenience. Approval applies to only the current year, as such previous years' approval does not constitute automatic approval for succeeding years. Any extensions approved will be paid for at the current grazing fee rate. A request for non-use must be received in writing at least 45 days prior to the grazing season.

Livestock may be moved from pasture to pasture within 3 days of the planned rotation dates. At least 90 percent of the permitted livestock must be moved by the scheduled date, and all livestock must be moved into the correct pasture within 3 days after the scheduled leave date. The permittee must notify the District Ranger if there is a need to deviate from planned rotation dates. The District Ranger will evaluate the request and approve the change to the AOI if the request is valid.

Livestock allowed to remain in pastures beyond the specified rotation date, allowed to drift between pastures, or allowed in a rested pasture will be considered a violation of the Term Grazing Permit. Animals on the allotment after the "off" date may be billed for at the unauthorized use rate and may be subject to other administrative actions on the permit.

Livestock will be managed to avoid concentrated use in any one area, especially riparian areas. A full-time rider may be necessary to disperse livestock and deter concentrations in preferred areas. Permittee shall manage livestock to utilize the less preferred areas by hauling water, placing salt, and herding as needed to achieve proper use and distribution throughout a pasture.

Salt and mineral supplements may be placed in lightly used areas until the desired level of forage use is achieved. Supplement will not be placed in areas within a quarter mile of water or a riparian area. Supplement will not be placed in over-used areas, meadow bottoms, along roads, along trails, or in heavily used recreation areas. Every time supplement is put out, it needs to be placed at different sites and sites are not to be susceptible to erosion.

The permittee is encouraged to have off-Forest range to use in the event drought, excess forage utilization or other unforeseen events necessitate early livestock removal. When these conditions occur, the District Ranger, with input from the permittee, will make the determination if livestock removal is required for resource protection. Drought situations may alter grazing sequence or length of grazing period. The season or numbers may be adjusted in proportion to the amount of moisture that has been received to date.

The number of livestock and/or season of use may be adjusted if the forage use standards or other management objectives are not being met. Livestock will be moved to the next pasture in the grazing schedule or off the Forest when utilization standards are exceeded.

IV. Improvements

The range improvements planned for the allotment include:

Reconstruct one mile of pipeline from East Indian Tank on the Heber Allotment to the Southwest corner of the South Pasture. A cooperative agreement between permittees on the Heber and Pierce Wash Allotments would be developed for the maintenance and cost sharing of the water system. This pipeline would supply water to the southwest corner, where current water is lacking and should provide for better distribution of animals. The Forest Service will supply materials (pipe and drinker) and the permittee will install.

Thin 2,698 acres of pinyon-juniper woodland through individual tree pushing or fuelwood harvest. The Forest Service will be responsible for all the fuelwooding, heritage clearances, block layout and ½ the acres of pushing. The permittee is responsible for the other half of the pushing. The first priority for treatment areas will be in the North Pasture and the stands that will become "A canopy closure" stands (refer to EA).

Range Improvement Standards

All assigned range improvements will be maintained by the permittee. When the annual grazing application is approved, in whole or in part, livestock will not be placed on an allotment or moved into pastures if permit requirements concerning range improvement maintenance are not met. Proper maintenance of the range improvements will insure that the condition of the improvements is adequate to hold livestock in a pasture and will extend the useful life of the improvements. Forest officers periodically will inspect assigned improvements for compliance with maintenance standards prior to livestock entry or movement dates. All range improvements are the property of the U.S. Government.

A permit modification will be prepared for approved projects each year. Permittees will sign a permit modification form for the project and will sign for materials furnished by the Forest. Ground disturbing activities will not be initiated by the permittee until proper clearances have been approved. Annual fence maintenance does not require approval.

A. Fences. Standards for maintenance and construction are:

1. All allotment boundary fences are to be maintained prior to livestock entering National Forest lands. Livestock will not be permitted to enter the Forest until fences have been properly maintained to keep livestock where they are placed.

2. Each permittee is responsible for the maintenance of all or a portion of an allotment boundary fence. A permittee will not be allowed to place livestock on the allotment if the neighboring permittee does not maintain their assigned allotment boundary fence.

3. Pasture fences will be maintained before moving livestock to a new pasture.

4. Old wire and steel fence posts will be removed from the Forest.

5. Broken wire will be spliced with good quality double strand, 12-1/2 gauge barbed or smooth wire.

6. Wire spacing will be similar to original spacing. The top wire height will not exceed 42 inches. The bottom wire will be smooth wire. The bottom wire will be 18 inches from the ground. The remaining wire strands will be spaced as follow, counting from the bottom wire: 18 inches, 24 inches, 32 inches, and 42 inches.

7. Wire will not be over tightened and will be stretched to remove slack.

8. Broken posts or rotten wood posts will be replaced with a steel post or a juniper or treated wood post greater than 5 inches in diameter.

9. Brace posts will be maintained in tight and serviceable condition.

10. Steel posts that have settled may need to be jacked up and possibly moved. Leaning steel posts will be straightened.

11. Gates will be maintained so they can be opened easily. Gate sticks will be 2-3 inches in diameter. Smooth wire will be used for gate loops.

12. At least 90 percent of fence stays will be sound. Replacement stays will be good quality wood, 1-1/2-inch by 3 inches in diameter. The bottom of each stay will rest on the ground. Galvanized stay wire will be used for tying stays. For 20-foot spacing between posts, three stays shall be used.

13. Missing staples and fence clips will be replaced.

14. All trees, which have fallen across the fence line will be cut and removed from the fence right-of-way.

B. Water. Issuance of this grazing permit and the permittee's acceptance of the permit does not convey ownership of a water right to the permittee(s) but allows the use of a portion of it within the terms of the appropriation. The Forest has filed for water rights on these waters with the State of Arizona. Grazing domestic livestock may not be possible without these water rights. The Forest will retain ownership of the water rights as appropriated to the United States Forest Service (USFS) for current and future grazing permittees as well as for wildlife and recreation consumptive needs. Ownership of the water rights belonging to the USFS will assure that the use of the water will be appurtenant to the land and will be available for both current and future grazing permittees.

Stock water is important for proper livestock distribution. Water must be used to demonstrate beneficial use in order to maintain water rights. If natural water is not available, the permittee may haul water to obtain proper livestock distribution. The following will be done:

1. Trick Tanks
    a. Fences around water sources and equipment shall be maintained annually to FS standards.

    b. Collection boxes, inlet pipes, and water troughs will be clean of sediment and debris before the improvement is used and during the grazing season as needed.

c. Broken pipe will be repaired or replaced. Material not usable will be removed from the Forest and disposed of properly.

d. Troughs that leak will be repaired. Troughs should be level. Overflow pipes should be placed to avoid creating a boggy area at the trough. Rusted out troughs need to be replaced through a permit modification.

e. Float valves will be cleaned and set to prevent overflow. They shall be checked regularly when pasture is in use and shall contain a protective cover to prevent damage from livestock.

f. Troughs shall have escape ramps for small mammals and birds. Escape ramps shall also be maintained.

g. Trick tank support structure and tin shall be inspected annually to insure that the improvement is sound. All damages need to be repaired.

2. Stock Tanks

a. Check stock tanks for seepage.

b. As a general rule, spillways need to be free of debris and obstructions. Eroded portions need to be repaired when they exist.

c. Tanks need to be cleaned to their original capacity whenever drought or other circumstances occur that result in the tanks being dry. Special care will be taken during cleaning to prevent future water loss. The work will be coordinated with the District Ranger prior to initiating repairs.

V. Monitoring and Evaluation

It should be recognized that monitoring is not an in depth analysis but a measure of indicators that may trigger further detailed analysis of a particular resource. Either monitoring or detailed analysis may trigger immediate corrective action on the allotment on a seasonal basis or as a change in the AMP and permit.

The following techniques to monitor grazing management:

A. UTILIZATION

Utilization should be determined according to a methodology described in "Utilization Studies and Residual Measurements". Compare actual utilization with allowable standards to determine compliance. Validation of grazing dates and stocking rates can be determined based on actual livestock use in comparison to utilization data.

Three places in each pasture were selected for utilization monitoring. These areas are identified on the enclosed map, and will be referred to as Key Areas. Key areas and key species may need adjusting, based on better information, additional improvements, etc.

Utilization Data will be collected from key areas in each pasture, which are identified on the enclosed key area map. Key species will be monitored in each key area for actual use. Key species for the respective key areas are:

South Pasture
Key Area #4: Blue Grama (Bouteloua gracilis)
Western Wheatgrass (Agropyron smithii)
Key Area #6: Blue Grama
Needle and Thread (Stipa comata)
Key Area #7: Blue Grama
Needle and Thread
Sideoats Grama (Bouteloua curtipendula)

North Pasture
Key Area #1: Blue Grama
Sand Dropseed (Sporobolus cryptandrus)
Key Area #5: Blue Grama
Needle and Thread
Key Area #6: Blue Grama
Needle and Thread

The desired utilization of these key species (herbaceous) in key areas is 25%. Utilization could not be expected to exactly meet 25% each year, therefore in the long-term a 20 to 30% use would be considered within the acceptable range for this analysis. If annual utilization is above 30% or trends of annual utilization are above 25%, district personnel and the permittee may need to re-evaluate the annual stocking. The above ranges apply both to the key species and key areas. If utilization falls outside of these ranges, either high or low, the stocking levels and/or management may be reevaluated. If utilization of one key area or key species is consistently above the desired utilization, then management of that key area should be reassessed, such as salt placement, water locations, etc. The desired utilization levels of browse species (cliffrose) is set at 45% and riparian species (cottonwood) is set at 20% of the terminal buds.

Utilization monitoring is the responsibility of the Permittee. The measurements should be taken within 10 days after the scheduled pasture move date specified in the Annual Operating Plan. The data sheets should be turned into the District Ranger within 2 weeks of the scheduled move date. Pasture use monitoring should be documented and filed in 2210/2230. Successive monitoring data will be used in validating pasture and allotment capacities. Current information on precipitation, forage production, and/or use levels may be used to adjust annual grazing use. The permittee should also keep a copy for their records.

B. COMPOSITION AND DENSITY

To determine changes in composition and density, long-term validation will be accomplished through re-reading Parker 3 Step clusters and Daubenmire (cover/frequency) transects as per R3 Rangeland Guide. These range clusters are suitable for determining long-term trend in vegetation and should be read every five to ten years. Great changes may not occur during the 10-year period but trend indications should be detected. The trend indications gathered from transects, should be measured against the desired condition/objectives.

In addition to Parker 3 Step clusters, additional transects should be read using the Common Non-Forested Vegetation Sampling Protocol (CNVSP) every five to ten years when the Parker clusters are read.

C. GROUND COVER

Determination of ground cover can be replicated at range clusters and transects. In most cases, an increase in vegetation cover from baseline measures is considered as moving toward Desired Conditions (DC), a decrease is considered as not accomplishing DC. Data will be collected on transects during the ninth or tenth year (same as vegetation monitoring).

D. CAPACITY ESTIMATES

Objective is to determine if original capacity estimates based on desired use levels are correct for individual pastures, considering vegetation, landscape, resource conditions, and forage preference. A combination of utilization monitoring, composition and density and ground cover will be used to validate capacity estimates. The utilization monitoring, composition, density and ground cover data, yearly precipitation data from local stations and any other pertinent information should be reviewed by the District Ranger, Range and Wildlife personnel from the Forest Service, along with the permittee, when the need arises. Due to the unpredictability of the results of the data collected, evaluations of stocking will need to be made at this time. Validation of capacity estimates may result in further adjustments in stocking rates, season of use, or both, either up or down.

E. ACTIONS

Monitoring will be used to adjust or amend previously described actions in the decision document or AMP. Information on validation monitoring should be shared with the permittee and others concerned with the decision. If the monitoring data is not achieving or moving toward the Desired Conditions, Forest Service personnel must analyze the problem and decide on a course of action. If necessary, an ID Team may be instituted to determine the corrective action needed. Re-initiation of NEPA may not be necessary if the action is still within the scope of the original decision.

Permittee Number
02035
Permit Number
02052

PIERCE WASH STRUCTURAL IMPROVEMENT LIST

Improvement Name	Improvement Number	Maintenance Responsibility
Pierce Wash-Park Day Bdy Fence	21004	Park-Day Permittee
North Forest Boundary Fence	21504	Pierce Wash Permittee
Heber- Pierce Wash Bdy Fence	21505	Pierce Wash Permittee
North –South Pasture Division Fence	21513	Pierce Wash Permittee
Holding Pasture Fence	21502	Pierce Wash Permittee
Pierce Wash-Park Day Bdy Fence	21010	Park-Day Permittee
Heber-Pierce Wash Bdy Fence	21501	Pierce Wash Permittee
Highway 277 right-of-way Fence	21518	ADOT
Pierce Wash-Park Day Bdy Fence	21006	Park-Day Permittee
Pierce Wash Stock Tank	21506	Pierce Wash Permiittee
Pierce Tank	21512	Pierce Wash Permittee
Partnership Tank and Waterlot	21503	Pierce Wash Permittee
Bentonite Tank	21511	Pierce Wash Permittee
Middle Long Draw Tank	21507	Pierce Wash Permittee
South Trick Tank	21516	Pierce Wash Permittee
South Trick Tank Fence	21517	Pierce Wash Permittee
Lower Long Draw Tank	21508	Pierce Wash Permittee
North Trick Tank	21514	Pierce Wash Permittee
North Trick Tank Fence	21515	Pierce Wash Permittee
Lower Pierce Tank	21509	Pierce Wash Permittee
Lower Pierce Tank Fence	21510	Pierce Wash Permittee

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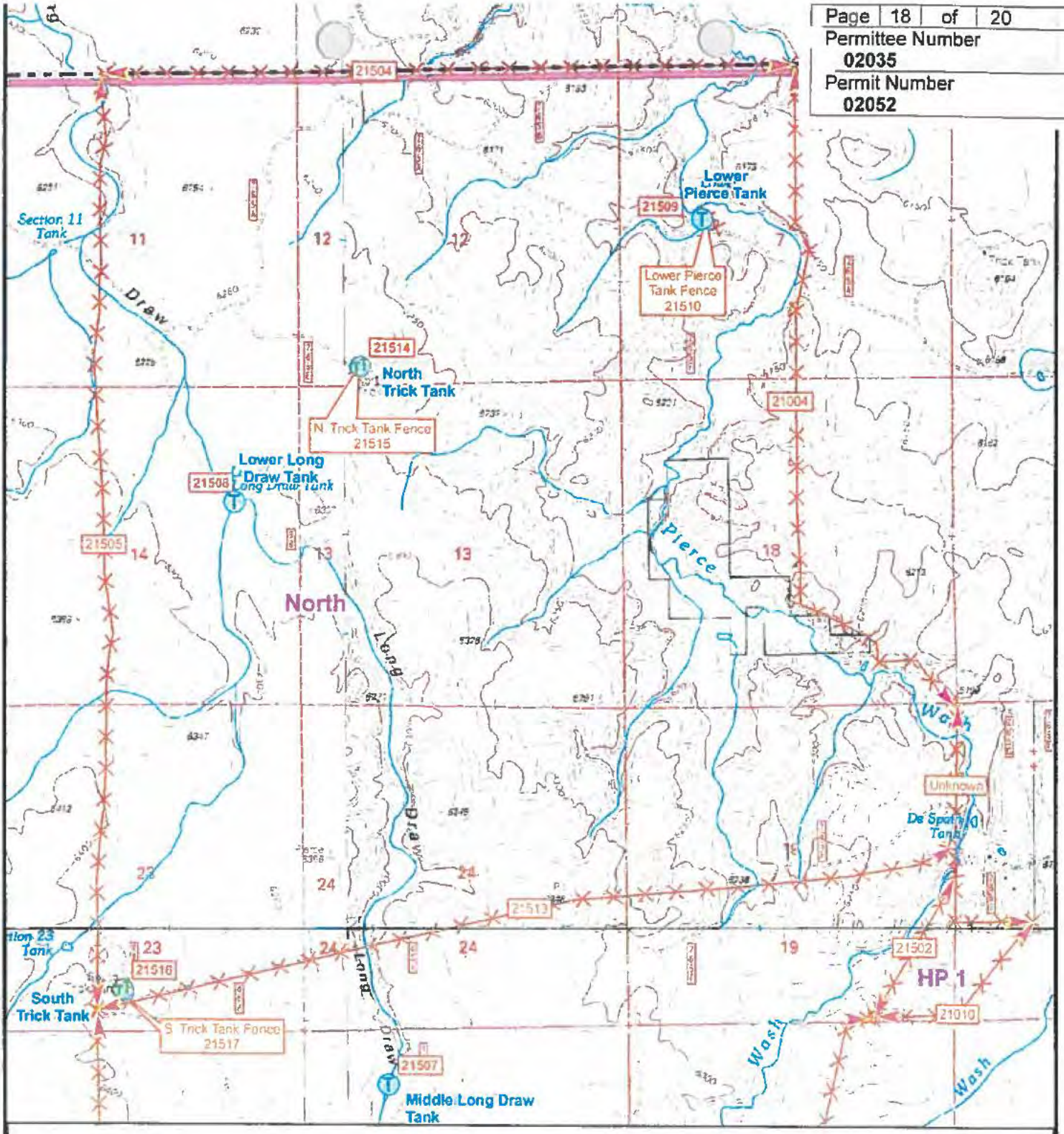

Pierce Wash Allotment

Black Mesa R. D. Apache-Sitgreaves N.F.s

North Pasture Improvements

Map Legend:

- District Boundary
- Other Owner
- 21508 Infra Number (Fence)
- 21507 Infra Number (Other)

Improvement Type:

- Stock Tank
- Trick Tank
- Fence
- Barner
- Pipeline

N

Miles
0 0.1 0.2 0.3 0.4 0.5

* Disclaimer Statement *
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Permittee Number
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Permit Number
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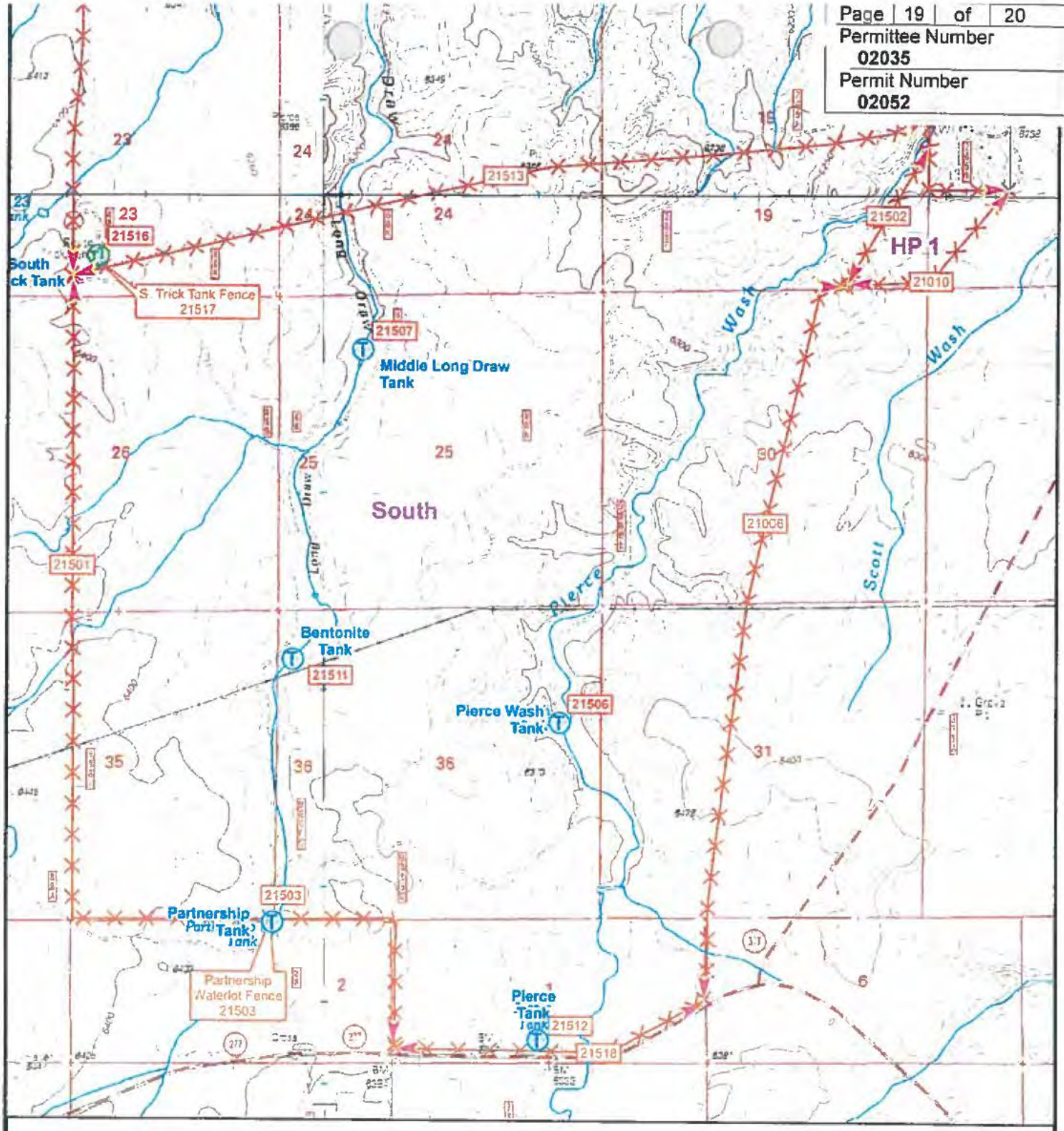

Pierce Wash Allotment

Black Mesa R. D. Apache-Sitgreaves N.F.s

South Pastureand HP Improvements

Map Legend:

- District Boundary
- Other Owner
- Infra Number (Fence)
- Infra Number (Other)

Improvement Type:

- Stock Tank
- Trick Tank
- Fence
- Barrier
- Pipeline

N

Miles
0 0.1 0.2 0.3 0.4 0.5

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Pierce Wash Key Area Revised 2018