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Sedow and Haystack Butte Allotment Range Improvements

Final Environmental Assessment



Forest Service

Tonto National Forest, Globe Ranger District

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Sedow and Haystack Butte Allotments

Sedow Allotment is approximately 40,000 acres in Gila County, about 10 miles north of Globe, Arizona. It is located in the northern portion of the Globe Ranger District of the Tonto National Forest. Sedow Allotment is broken into 17 separate grazing pastures. Haystack Butte Allotment is approximately 15,600 acres in Gila County, about 12 miles north of Globe, Arizona and adjacent to the north side of Sedow Allotment. Haystack Butte Allotment has 10 separate grazing pastures. See map in Figure 1.

Grazing is one of many multiple uses that the Forest Services must consider when looking at managing federal land (*Multiple Use and Sustained Yield Act of 1960, Wilderness Act of 1964, Forest and Rangeland Renewable Resources Planning Act of 1974, Federal Land Policy and Management Act of 1976, National Forest Management Act of 1976*). On the Tonto National Forest, the decision to authorize cattle grazing often lies with the district ranger, and includes the number of cattle, where and when they are permitted within the allotment, and any ancillary actions that are necessary for the authorization.

This is **not a project to authorize livestock grazing** on the Sedow or Haystack Butte Allotments. For this project, the Globe District Ranger will decide whether or not to authorize additional improvements on the allotments as described in the proposed action based on the analysis in this document and supporting project record¹.

This project, as described in the proposed action, is necessary to allow the existing grazing authorization for Sedow and Haystack Butte Allotments to continue to comply with Forest Plan direction by managing grazing to achieve conservative utilization of forage. There is also a need to authorize the permittee to install water enhancements to allow cattle to be more reliably rotated around pastures to achieve resource goals. Specifically, we need to:

- Supply additional water for livestock, not presently available due to minimal spring water production, to enhance livestock distribution.
- Assist in livestock management and monitoring on Sedow and Haystack Butte Allotments.
- Fully implement deferred/rest rotation grazing management to meet conservation objectives of the Tonto National Forest Land and Resource Management Plan (Forest Plan), specifically Management Areas 2F and 2B.

¹ The project record is available through the South Zone NEPA Coordinator, located at the Mesa Ranger District.

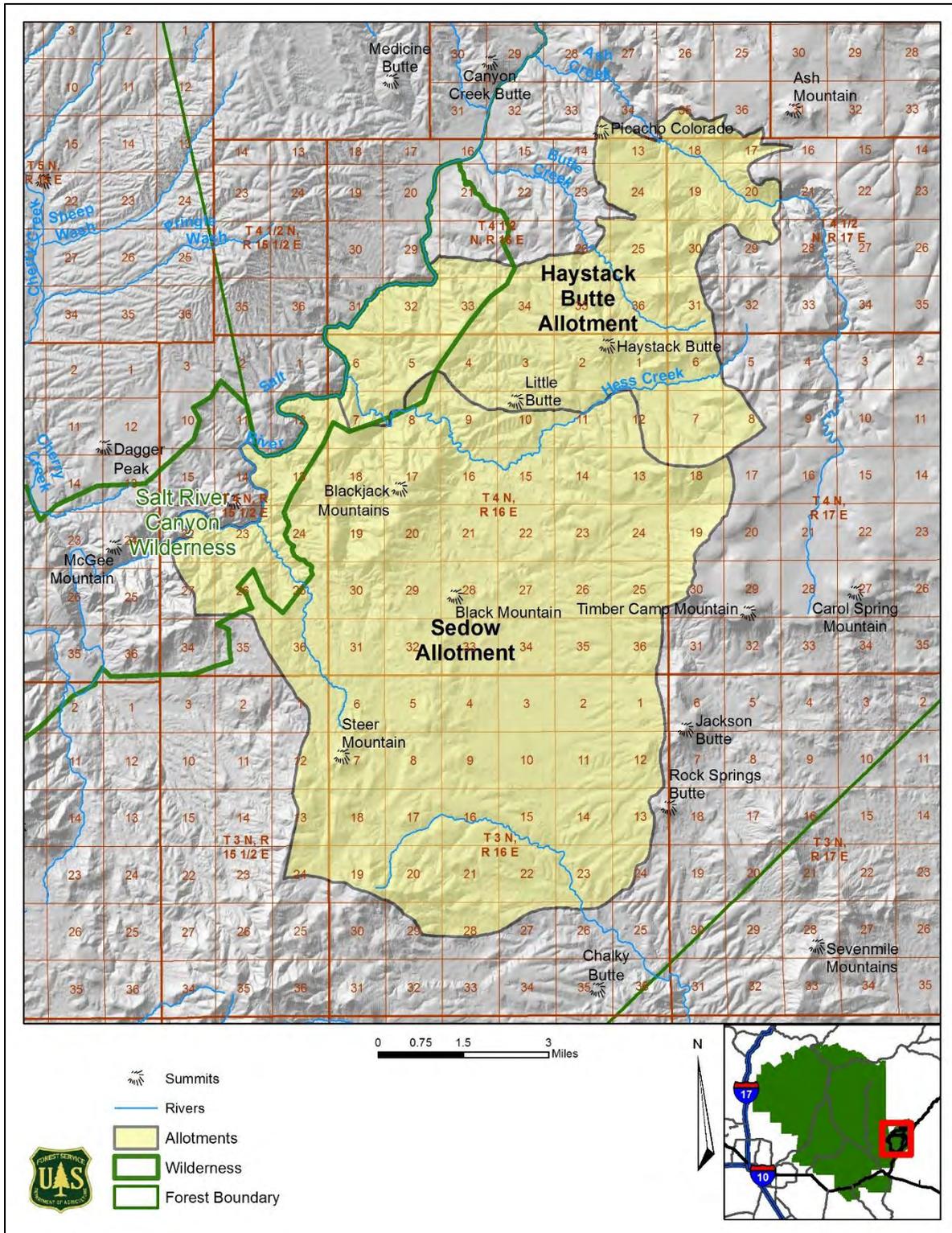


Figure 1: Map of the Sedow and Haystack Butte Allotments

Background

In order to fully implement deferred/ rest rotation grazing management to meet conservation objectives of the Forest Plan, more efficient and effective livestock distribution is required. With historic continuous grazing, placement of a few head of cattle at each spring and water was sufficient. Under this management method, cattle will congregate continuously at these water sources leaving no opportunity for the surrounding vegetation to rest and regrow. With less vegetation around springs and water sources, the potential for erosion increases. To reduce these effects, modern rotational grazing management instead rotates cattle, in herds, from one pasture to another, allowing the vegetation to recover and regrow before cattle return to the area. However, the existing springs on the Sedow and Haystack Butte Allotments do not provide adequate water to support this type of rotational grazing. Furthermore, many areas of the allotments that currently contain adequate forage are underutilized by livestock, due to lack of water and poor spring flows during drier years.

Existing and Desired Conditions

Existing conditions describe the current management situation and environmental conditions within the project area. Desired conditions describe how the resource should function after the project is implemented and are defined by Forest Plan guidance and the best available scientific information.

Resources chosen to illustrate the existing and desired condition for this project are indicators of water availability. These were chosen to illustrate the potential increase in the distribution of the currently authorized livestock numbers within the allotments.

Existing Conditions

Sedow Allotment

The Sedow Allotment is approximately 40,000 acres, broken up into 17 pastures (Figure 2 and Figure 3). The Sedow Allotment permittee, per a 2015 permit modification, is instructed to exercise deferred/rest rotation grazing management and employs herding, salting, and constant assessment of livestock to ensure continuing development of progressive livestock management. Deferment postpones season of use every two of three years while rest allows a pasture to not be grazed every one out of three years. In 2014, eight pastures were grazed; however, in the following year only four were deferred. In 2015 and 2016, seven pastures were grazed, only three were deferred, and within one year two were grazed twice. Pastures not deferred were 4Y, Jackson, Black Mountain, Hess, and Seven Mile which remain in scheduled pasture rotations due to water availability and reliability.

Sedow Allotment Existing Water Sources

Bronson pasture has one trick tank, one stock tank and horizontal spring, and a gated accessible water trough at a holding trap in the southern end of the pasture. Undeveloped seasonal water does exist but is not a reliable source. All enhancements are currently functional excluding the trick tank which is shared with Haystack Butte.

Storm Canyon pasture has four springs. Walnut spring feeds eight troughs and three water storage tanks in Storm Canyon and adjacent 4Y pasture. Upper Yankee Joe spring is a negligible producing spring. Due to lack of rainfall available for re-charge, all are at a different level of functionality.

Black Mountain pasture has one spring, one well with waterline, utilizes two waterlines from Walnut pasture, and accessible water sources in holding traps. Monument spring is a negligible producing spring and unreliable. Miners' camp waterline produces adequate water to four water troughs.

Walnut pasture has functional springs, however only waterlines are reliable. Walnut spring waterline supplies eight water troughs and three water storage tanks throughout Walnut, Black Mountain, Storm Canyon, 4Y, and Yankee Joe pastures. Cavey and Little Pipe Springs produce some water and are also accessible to Hudson pasture.

Hudson pasture is supplied with water from Little-Pipe waterline, Walnut spring waterline, Cottonwood waterline, and Hudson spring. Both Cottonwood horizontal well and Hudson produce water. Hudson pasture also has access to Headquarters spring which produces dependable water. One stock tank is functional and provides seasonal water.

Haystack Butte Allotment

The Haystack Butte Allotment is approximately 15,600 acres, broken up into 10 pastures (Figure 2 and Figure 3). The Haystack Butte allotment permittee, per a 2015 permit modification, uses deferred/ rest rotation grazing management. Additionally, Haystack Butte also employs herding, salting, and constant assessment of livestock to ensure continuing development of progressive livestock management. Through adaptive management, all pastures excluding Ash Creek have met deferment objectives. However, pastures have not been able to be rested effectively due to the lack of all necessary water infrastructure.

Haystack Butte Allotment Existing Water Sources

Cottonwood pasture has three springs, two horizontal springs, and two stock tanks. The three springs and horizontal wells are producing sufficient water for livestock troughs. However, water production has been shown to be inconsistent and vary with rainfall. Without consistent rainfall, these springs and wells have not been fully replenished.

Cottonwood wing ditch and Switchback stock tanks hold water, but need periodic maintenance to remove silt.

Bronson pasture has five springs and six stock tanks. Bronson spring and Surprise spring are dry most of the time. Eagle Bluff spring is producing water and is supplemented by Sanders spring near Haystack Butte headquarters. Of the six stock tanks, two were built in poor locations and rarely hold water. The other four tanks all hold water but need periodic maintenance to remove silt.

River and Upper River pastures have three functional springs with a reserve waterline and stock tanks. Other small springs are available for livestock water, however water production has been inconsistent and varies with rainfall. Without consistent rainfall, these springs and wells have not been fully replenished. All the stock tanks hold water.

Upper, Middle, and Lower Ash Creek pastures have two springs and three stock tanks. Both springs produce sufficient water. Picacho stock tank is dependable and holds water regularly, Cypress stock tank holds water but needs periodic maintenance to remove silt. The last stock tank was built in a poor location and usually doesn't hold water.

East and West Steer pastures have three stock tanks. One is reliable but two were built in poor locations, do not hold water long, and need periodic maintenance to remove silt.

Desired Conditions

The Forest Plan defines desired conditions for areas of the forest referred to as management areas. The Sedow and Haystack Butte Allotments are located within Management Area 2F and 2B. Relevant direction for Management Area 2F includes setting utilization limits, or the percentage of

key species of vegetation that can be grazed within a given time period that will allow enough vegetation left to regrow. For this management area, utilization standards are set for conservative use or 30 to 40 percent utilization. In management area 2B, it is desired to construct water improvements needed to protect and maintain vegetation within the wilderness. The Globe Ranger District seeks to fully implement deferred/rest rotation grazing management to meet objectives of conservative use utilization of key species in Management Areas 2F and 2B.

Proposed Action

The proposed action was developed to achieve the desired conditions and consists of improvements and design features. The existing and proposed improvements for both allotments are pictured in Figure 2 and Figure 3². The proposed action follows current guidance from Forest Service Handbook 2209.13, Chapter 90 (Grazing Permit Administration; Rangeland Management Decision Making).

² In Figure 2, the improvements are broken into two groups: Group A and Group B. This was done to facilitate the wildlife analysis, which can be found later in this document. In Figure 3, there are no Group B improvements. All improvements being proposed, regardless of which group, are analyzed in this document.

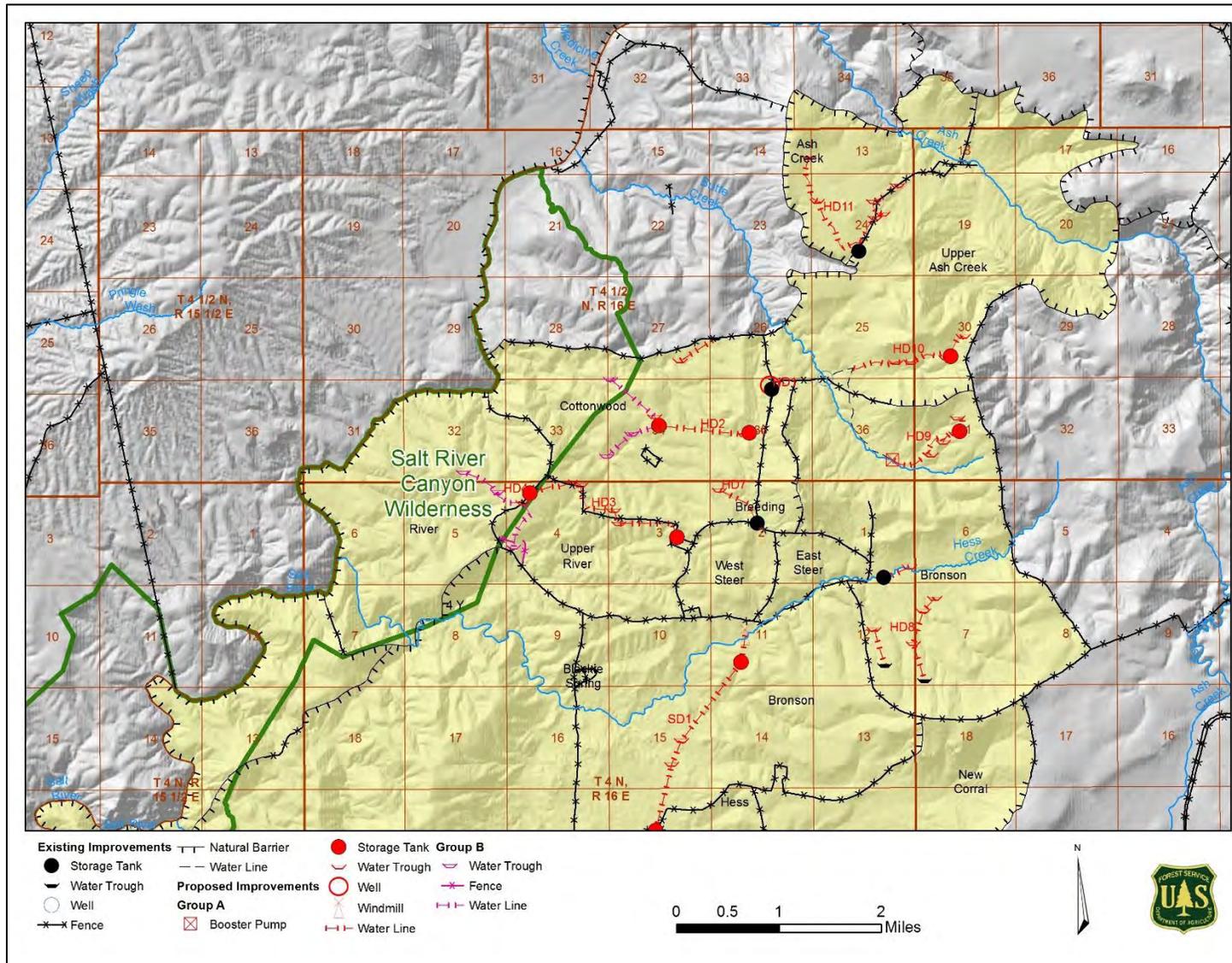


Figure 2: Map Showing North Half of the Project Area Including Existing and Proposed Range Improvements

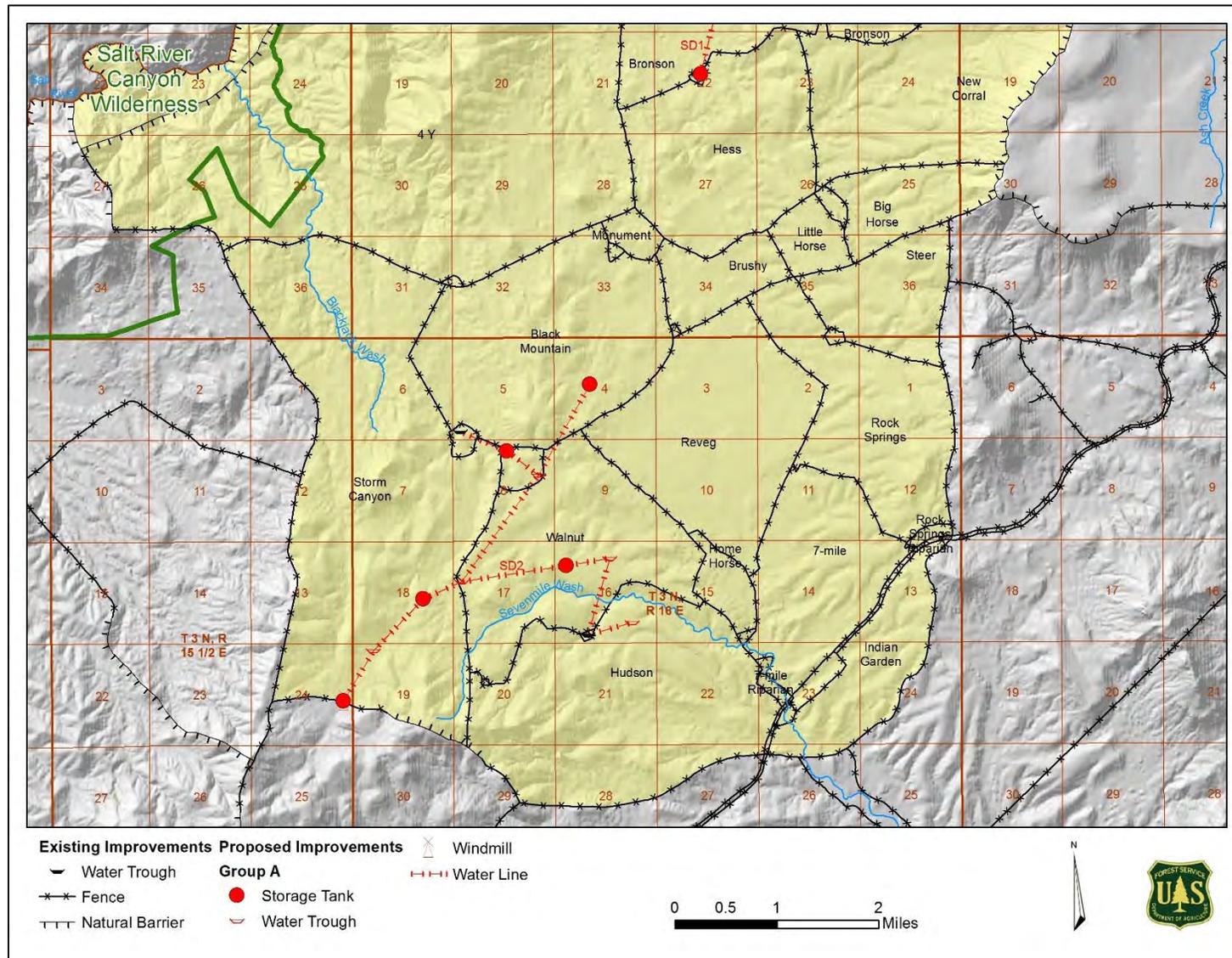


Figure 3: Map Showing South Half of the Project Area Including Existing and Proposed Range Improvements

Sedow Allotment Project Descriptions and Locations

The Tonto National Forest proposes authorization of new water developments in order to increase the distribution of the currently authorized livestock numbers within the allotments (Figure 2 and Figure 3). Specifically, the authorization to drill two new water wells on the Sedow Allotment to supply 303 and Yankee Joe waterlines to directly provide water to five pastures, and indirectly support one, which will enhance livestock distribution across the allotment. Yankee Joe waterline will also indirectly affect water distribution in 4Y pasture due to waterlines extending from Storm Canyon pasture which is fed by Walnut spring. Any needed maintenance to existing stock tanks, trick tanks, or springs, shall occur prior to any new enhancement installation. Specific well locations will be determined after seismic testing is completed and shall be referred to as Testing Location.

303 Waterline (SD-1) – Group A

At the Testing Location, a proposed well will be drilled and a waterline will be placed alongside Forest Service Road 217 to three new troughs ending at an existing trough in JU trap. The exact location of the proposed well will be determined in consideration of effects to range, riparian, wildlife, and heritage resources. A 10,000 gallon above ground water storage tank will be placed near the second trough to allow gravity to move the water. Total waterline length will be approximately 2.25 miles.

The 303 waterline project, SD-1, is located in Bronson pasture in Township 4 North, Range 16 East, Sections 4, 8, 16, 17, 18, 19, and 24.

Yankee Joe Waterline (SD-2) – Group A

From the proposed well at the Testing Location, a waterline will be placed supplying eight water troughs. The exact location of the proposed well will be determined in consideration of effects to range, riparian, wildlife, and heritage resources. Six troughs will be new and the other two will be updated. Three above ground water storage tanks, between 3,000 and 5,000 gallons in capacity, will be placed to gravity feed water to the remaining waterline. One corral will be modernized and one water trough will be placed inside. Total waterline length is 6.5 miles.

Yankee Joe waterline project, SD-2, is located in Black Mountain, Hudson, Storm Canyon, and Walnut pastures in Township 4 North, Range 15 East, Sections 11, 15, and 22.

Haystack Butte Allotment Project Descriptions and Locations

The Tonto National Forest proposes the authorization of new water developments in order to increase the distribution of the currently authorized livestock numbers within the allotments. Specifically, the authorization to drill one new water well on Haystack Butte Allotment, the extension of existing waterlines, and placement of several above ground water tanks and troughs to supplement existing water system (Figure 2 and Figure 3). This will enhance livestock distribution across the allotment. Any needed maintenance to existing stock tanks, trick tanks or springs shall occur prior to any new enhancement installation. All proposed projects are located north of Globe, Arizona, on the Globe Ranger District. Specific well locations will be determined after seismic testing is completed and shall be referred to as the Testing Location.

Cottonwood Pasture

Headquarters Well (HD-1) – Group A

One new water well will be drilled at the Testing Location near Haystack headquarters and one solar powered water pumping system will be installed. A waterline will be placed from the water pumping system to the existing above ground water storage tank location just south of Haystack Butte headquarters and one new above ground 10,000 gallon water storage tank will be placed adjacent to two existing above ground water storage tanks. Water will be used to facilitate cattle distribution throughout the allotment.

Headquarters Well project, HD-1, is located in Breeding pasture in Township 4.5 North, Range 16 East, Section 35.

Cottonwood Pasture Waterline (HD-2) – Group A

For HD-2 there are a total of three new 5,000 gal tanks and 3 troughs. These troughs would be fed off new storage tanks. The last trough will be fed from an existing trough at Butte trap and corral.

Two of the new adjacent, above ground 5,000 gallon water storage tanks will be placed just west of where Forest Service Road 303 ends. It is less expensive and a less visible profile to add two smaller storage tanks as opposed to one large one.

An above ground waterline to a third, above ground, 5,000 gallon water storage tank will be placed in Cottonwood pasture.

An existing waterline will be extended at Boundary pasture corrals alongside Haystack Butte and Chrysotile boundary.

Cottonwood Headquarters Waterline project is located in Cottonwood pasture in Township 4.5 North, Range 16 East, Sections 27, 33, 34, and 35.

Cottonwood Pasture Waterline (HD-2) – Group B

Three new troughs will be placed off the last new storage tank placed in Group A.

Windy Ridge Waterline (HD-3) – Group A

An existing waterline from Yellow-jacket water lot will be extended and new above ground waterline and four water troughs will be placed alongside Forest Service road 985, also known as Windy Ridge road.

One new above ground water storage tank and trough will be placed at end of proposed Windy Ridge waterline at Black Mesa corral.

Windy Ridge Waterline project, HD-3, is located in Cottonwood pasture in Township 4 North, Range 16 East, Sections 3 and 4.

River Pasture

Black Mesa to River Pasture Waterlines (HD-4) – Group B

A new above ground waterline will be installed from the proposed above ground water storage tank at Black Mesa corrals to two water troughs in River pasture.

Black Mesa to River Pasture Waterline project, HD-4, is located in Cottonwood and River pastures in Township 4.5 North, Range 16 East, Sections 33 and 5.

Upper River Pasture

Black Mesa Waterline (HD-5) – Group A

Place above ground waterline and one water trough at White Ledges Gap from proposed above ground water storage tank at Black Mesa corrals.

Black Mesa Waterline project, HD-5, is located in Upper River pasture in Township 4 North, Range 16 East, Sections 4 and 5.

White Ledges Gap Holding Trap (HD-6) – Group B

Two new wire construction wing fences will be incorporated with natural barriers to create a holding trap at White Ledges Gap in Upper River pasture. The holding trap will be used to facilitate cattle gathering and movement out of the pasture.

White Ledges Gap Holding Trap project, HD-6, is located in Upper River pasture in Township 4 North, Range 16 East, Section 5.

West Steer Pasture

West Steer Water Storage Tank (HD-7) – Group A

The existing waterline from above ground water storage tank in West Steer pasture near Forest Service road 303 will be extended. New above ground waterline will be placed alongside Forest Service road 303, turning east, and leaving road just north of Switchback dirt water tank.

One new water trough will be installed in Cottonwood pasture.

West Steer Water Storage Tank project, HD-7, is located in West Steer pasture in Township 4 North, Range 16 East, Section 2.

Bronson Pasture

Bronson Pasture Waterlines (HD-8) – Group A

Existing waterline will be extended north from Bronson pasture Trick Tank. New above ground waterline and one water trough will be installed.

Existing waterline from water the trough on the ridge east of Bronson pasture Trick Tank will be extended. New above ground waterline and three water troughs will be installed.

Existing waterline from above ground water storage tank alongside Forest Service road 2512 will be extended. New above ground waterline and one water trough will be installed.

Bronson Pasture Waterline project, HD-8, is located in Bronson pasture in Township 4 North, Range 16 East, Sections 1 and 2, and Township 4 North, Range 17 East, Sections 6 and 7.

Basin Waterline (HD-9) – Group A

Existing waterline from Upper Ash Creek pasture will be extended from existing Turkey well solar pumping location. A new 2500 gallon above ground water storage tank will be installed near existing trap and one water booster pump will be installed.

New above ground waterline and four water troughs will be placed alongside Forest Service road 304B.

Basin Waterline project, HD-9, is located in Bronson pasture in Township 4.5 North, Range 16 East, Section 36, and Township 4.5 North, Range 17 East, Section 31.

Upper Ash Creek Pasture**Cypress Waterline (HD-10) – Group A**

Existing waterline in Upper Ash Creek pasture will be extended from existing Turkey well solar pumping location to an additional new solar pumping location located adjacent to two existing water storage tanks. New above ground waterline will be placed along with two new above ground water storage tanks, and four new water troughs alongside Forest Service road 1130.

Cypress Waterline project, HD-10, is located in Upper Ash Creek pasture in Township 4.5 North, Range 16 East, Sections 25 and 36, and Township 4.5 North, Range 17 East, Section 30.

Middle and Lower Ash Creek Waterline (HD-11) – Group A

Existing waterline from Upper and Middle Ash Creek pastures at Haystack guzzler, also known as UFO trick tank will be extended. New above ground waterline and four new water troughs will be installed alongside Forest Service road 3127.

New above ground waterline and two new water troughs will be installed alongside Forest Service road 1052 in Middle Ash Creek pasture.

Middle and Lower Ash Creek Waterline project, HD-11, is located in Middle and Lower Ash creek pastures in Township 4.5 North, Range 16 East, Sections 13 and 24.

Design Features

The following design features are proposed to decrease or eliminate potential adverse effects to natural resources from the proposed water improvements:

- All water storage tanks must have closed tops.
- All waterlines must be no smaller than 1.25 inch diameter.
- Water troughs must be kept at a useable height for livestock. A portion of the trough may be buried below grade to achieve this.
- Overflow pipe must be installed on all troughs, with water piped to nearest drainage or at a minimum of 50 feet away.
- Water from new wells should be pumped during higher flow periods and less or none at low or base flow periods.
- Disturbance to obligate riparian vegetation should be minimized, including but not limited to willows, cottonwoods, and sycamores.
- Spring developments will not dewater the spring and must maintain a residual flow for riparian obligate and wildlife species.

- All water troughs must have escape ramps built of expanded metal or similar materials and extend to bottom of trough and sides. Ramp should be firmly secured to trough rim so not to be knocked loose by animals. Access ramps shall be constructed of durable material such as concrete or metal. Slope will not exceed 45 degrees.
- Poles, posts, or trough frames must not be taller than trough or cross above trough.
- Waterline air or drain vents must be covered with fine mesh to prevent rodents or dirt from entering line. All above ground waterline supported structures will be maintained to keep pipe at gradient and prevent sagging.
- Troughs should be placed on rocks or concrete to prevent mud holes or sinkholes. Troughs should be painted a color which best blends with surrounding landscapes if using galvanized steel or other reflective surfaces.
- Storage tanks should be painted a color which best blends with surrounding landscapes.
- Where and when practical, as determined by the permittee and Forest Official, water should be available for wildlife year-round.
- Inspect and remove any wildlife to an appropriate habitat before removing water from troughs.
- Adequate levels of snags and dead and downed wood will be retained in the project area though some may be removed during project construction.
- All improvement components (e.g., cut sections of pipe, left over metal) used for construction must be removed from Forest and properly disposed of.
- In disturbance areas after development is finished, development sites should be mulched for soil rehabilitation. Mulch should be weed free, to avoid invasive or noxious weeds.
- There are five proposed water troughs in the Salt River Canyon Wilderness. These need to be composed of native materials, where practicable, and consider the visual impacts to the casual observer.
- All pipelines leading to the troughs in the Wilderness must be buried.
- To maintain the visual quality objectives in the uplands the pipeline should also be buried, where practicable, especially along the roads.
- In order to allow for future road maintenance, pipelines should be placed at least 8 to 10 feet from the edge of the road.
- If necessary, a Minimum Required Decision Guide (MRDG) will be completed prior to any use of motorized or mechanized equipment in the Salt River Canyon Wilderness.

Environmental Consequences of the Proposed Action

Range Resources

Vegetation will be directly impacted in the short-term by the installation of the proposed pipelines and troughs. Direct impacts will include full removal of some vegetation species within the footprint of the proposed improvement (up to a maximum of 60 feet across) before or during installation using hand or power tools. Indirect impacts will include trampling by workers or defoliation of established vegetation during installation. Other potential indirect impacts may include the expansion of invasive species into nearby disturbed areas. However, in disturbance areas, after development is finished, development sites will be mulched for soil rehabilitation. Mulch will be weed free, to avoid or minimize the spread of invasive or noxious weeds. Pipe will be weaved through and around existing vegetation causing minimal impacts.

Workers installing water developments are expected to adhere to the design features identified in the Proposed Action, as well as Best Management Practices and general safety standards. This project is not anticipated to have any effects to public health and safety.

Cattle tend to congregate around water sources so range improvements, specifically water developments, determine where and how livestock utilize a pasture. This can be determined by how much water is produced at a particular site or how long water is available. These two factors are important for distribution. For example, if a spring only supports water during the spring time, it will only provide water for livestock during that same time and cattle are likely to use that section of the allotment during that same time. Having water developments on an allotment does not directly correlate with livestock use of a pasture, but what kinds of water and how long they are available for use is important. Levels of moderately higher livestock use will be expected to occur in areas within one quarter mile from trough locations.

Each grazing allotment has a specific grazing strategy that has been locally developed along with other grazing management such as herding and salting, to meet Forest goals and objectives identified in the Term Grazing Permit and associated Allotment Management Plan. Cattle react differently to each pasture within an allotment based on time of year. This is why it is important to facilitate rotations that allow areas to rest from grazing.

Existing improvements are not meeting demands for the rotational grazing strategy that has been identified as necessary for the Sedow and Haystack Butte Allotments. Springs and stock tanks only provide seasonal water, which does not allow for flexibility in the needs of the plants being grazed. Without additional water enhancements, a rotational grazing strategy will not be achieved, allowing plants to receive more grazing pressure while other areas receive slight use, continuing to impact livestock distribution. If this rotational grazing strategy is not met, the terms and conditions of the term grazing permit that was modified in 2015 and 2016 will not be achieved. Plants will continue to be impacted and distribution will be further impaired until a future point in time that allotment analysis is completed.

Adding water enhancements to the Sedow and Haystack Butte Allotments will increase reliable water availability across both allotments. This will allow an appropriate rotational grazing strategy to be effectively implemented and pastures could be grazed at different times of the year. This will, in turn, benefit plants by allowing them a period of rest and time to regrow and recover from grazing. Because no or minimal direct and indirect negative effects are anticipated from the Proposed Action, no significant cumulative effects are expected when added to these effects.

Water Resources

Developing additional watering sources will be beneficial to facilitate better livestock distribution and reduce undesirable effects to riparian vegetation. As stated by Clary and Kruse³ (2003), “Encouraging livestock away from riparian areas is, in many cases, a key management activity. Development of off-stream water sources is often the easiest way to do this.”

Two of the new wells proposed for the water distribution system (one adjacent to Yankee Joe Canyon and one adjacent to Bronson Canyon) will be located within or adjacent to mapped riparian areas in these canyons. Field visits in October 2017 confirmed that riparian obligate vegetation exists at or

³ Clary, Warren P. and William H. Kruse. 2003. Livestock grazing in riparian areas: environmental impacts, management practices and management implications. [In]: *Riparian areas of the southwestern United States*. Eds: M.B. Baker, Jr., P.F. Ffolliott, L.F. page 252.

near the proposed drill sites. Obligate riparian vegetation depends on access to shallow water tables for its recruitment and survival. Groundwater pumping has the potential to lower water tables in riparian zones and adversely affect riparian vegetation. Pumping at rates less than five gallons per minute should not affect water tables and riparian resources. If pumping exceeds five gallons per minute, then the potential for impacts to water table elevations and riparian vegetation may occur and mitigation measures as described in the Proposed Action will be followed.

Two of the new water troughs proposed in the Storm Canyon pasture are proposed in close proximity to riparian areas in Yankee Joe Canyon. Potential for overutilization of riparian vegetation in the canyon exists due to the proximity of these troughs. Mitigation measures such as limiting utilization of riparian vegetation to levels that will not damage riparian resources and ensuring that some water remains at the spring to support water dependent resources will prevent or reduce these impacts.

Implementation of the mitigation measures identified in the Proposed Action should ensure that significant impacts to water dependent resources will not occur. Impacts to water table elevations in riparian areas and water dependent resources supported by springs and seeps should be negligible. Because no or minimal direct and indirect negative effects are anticipated from the Proposed Action, no significant cumulative effects are expected when added to these effects.

Soil Resources

This project will have a short term impact on soils—on localized sites where water developments are installed. However, in the long-term, adding these water developments to the Sedow and Haystack Butte Allotments will benefit soil as compared to the existing condition. Adding water developments to range allotments affects livestock use patterns and can improve cattle distribution across the allotment. The proposed developments will contribute to better cattle disbursement on the Sedow and Haystack Butte Allotments which will lead to less compaction of soils within heavily used areas such as the few existing watering areas. This will also allow plants to recover more effectively than the current condition, increasing vegetative ground cover and decreasing erosion and degradation at current watering sites. Implementing the mitigation measures in the proposed action will minimize effects to soils to negligible levels. Because negative effects are anticipated to be negligible from the Proposed Action, no significant cumulative effects are expected when added to these effects.

Wildlife Resources

Effects to Threatened and Endangered Species

Southwestern willow flycatcher and narrow-headed gartersnake are the two threatened or endangered species potentially affected by this project. Conservation measures, or measures to minimize potential project effects to these species, are included in the Proposed Action.

Southwestern Willow Flycatcher

Brood parasitism by brown-headed cowbirds can negatively affect individual Southwestern willow flycatchers (flycatcher), and local flycatcher populations, by reducing flycatcher reproductive performance. The female cowbird lays its eggs in nests of other species. The flycatcher, or “host” species, then unknowingly incubate the cowbird’s eggs and raise the young. Because cowbird eggs hatch after relatively short incubation, and hatchlings develop quickly, they often out-compete the hosts’ own young for parental care. Cowbirds may also remove eggs and nestlings of host species

from nests (or injure nestlings in nests), thereby acting as nest predators⁴. The distance cowbirds travel from feeding areas to riparian areas where female flycatchers lay their eggs varies among sites depending on numerous factors, including cowbird-attracting activities on surrounding lands, location and abundance of suitable feeding areas in relation to suitable breeding and egg laying areas, and land ownership patterns⁵. Range improvements constructed in locations that may attract more cowbirds to flycatcher breeding areas would be the potential affect to flycatchers from this project.

No flycatcher designated critical habitat occurs in or near the project area. The closest flycatcher designated critical habitat begins 16 miles downstream at the confluence of the Upper Salt River (river) with Cherry Creek, and extends downstream to the conservation space of Roosevelt Lake, but not within it.

However, other flycatcher habitats occur in riparian areas along the Upper Salt River within the River and Cottonwood Pastures of the Haystack Butte Allotment. Outside the project area, upstream, there is recently occupied, suitable, regenerating, and unsurveyed habitat in the vicinity of Gleason Flat. Gleason Flat has been consistently occupied by flycatchers since habitats within the flat became suitable in approximately 2010. From one to 12 flycatcher territories have been documented between 2010 and 2014⁶. Some of the proposed improvements on the Haystack Butte Allotment (HD-2, HD-4, HD-5, and HD-6) are within distances of these described habitats that may indirectly effect flycatchers. These identified improvements are all in the Group B improvements depicted in Figure 2. Livestock use of these proposed improvements from April 1 through July 31 may increase any existing effects of brood parasitism by brown-headed cowbirds on individual flycatchers nesting in these habitats. Improvements HD-2 and HD-4 are the closest to these habitats. The distances from HD-2 and HD-4 to the nearest flycatcher habitat are shown in Table 1. The remaining proposed improvements on the Haystack Butte Allotment, included in Group A, are far enough away from flycatcher habitats where effects to flycatchers from these improvements are not expected.

Table 1: Closest Proposed Improvements to Nearest Flycatcher Habitats on Haystack Butte Allotment

Improvement Number	Distance to Habitat	Description	Habitat Status
HD-4	0.6 mi	Distance to nearest river flycatcher habitat.	Unsurveyed
HD-2	1.5 mi	Downstream end of Gleason Flat	Occupied
HD-2	2.8 mi	Confluence USR FR 303, near Gleason Pond.	Occupied
HD-2	3.8 mi	Upstream end of Gleason Flat.	Occupied

Adding water troughs at improvements HD-2, HD-4, HD-5, and a livestock holding trap with water at HD-6 could potentially contribute to increasing brown-headed cowbird brood parasitism at unsurveyed southwestern willow flycatcher nesting habitats in riparian areas along the Upper Salt

⁴ U.S. Department of Interior, Fish and Wildlife Service. 2014. 5-Year Review: Summary and Evaluation Southwestern Willow Flycatcher. Phoenix Ecological Services Office, Phoenix, AZ.

⁵ U.S. Department of Interior, Fish and Wildlife Service. 2015. Framework for streamlining consultation on livestock grazing activities. US Forest Service, Southwestern Region, Albuquerque, NM.

⁶ U.S. Department of Agriculture, Forest Service. 2011. Tonto National Forest. District electronic files, southwestern willow flycatcher reports, surveys, and summaries, 2007-2012. Tonto National Forest, Globe, AZ.

River floodplain on the western boundary of the River Pasture, and upstream at Gleason Flat, which is consistently occupied by nesting flycatchers when surveyed.

Effects of constructing project range improvements at mapped locations is expected to be small, or may not occur at all because the occupied habitats at Gleason Flats are far enough away that adding these improvements may not increase brood parasitism of nesting flycatchers at those habitats. The unsurveyed habitats closest to the improvements that appear most likely to be occupied by flycatchers are one mile away from new improvements and are smaller habitat patches, although their status is unknown. The new improvements may not increase any existing parasitism rates in these habitats because cowbirds are a native species already present at these habitats. Cowbirds were observed during flycatcher surveys at Gleason flats⁷.

There are also factors other than new range improvements that may attract cowbirds into these riparian habitats; they include 1) existing range improvements in the vicinity of the new improvements, 2) grazing on the west side (river right) of the Salt River on Tribal Lands, although this has been observed mostly during winter months, 3) a ranch in proximity to Gleason Flat, and 4) recreation related cowbird attractants at Gleason Flat and along the river where gates are left open by recreationists, which allows cattle to travel to river riparian habitats. Cowbirds have likely increased in abundance and distribution on western landscapes with European settlement and are closely associated with anthropogenic actions such as livestock grazing, agriculture, and settlements⁸.

Although any effects by livestock using these newly constructed improvements should be small, a biological assessment of these effects will be developed through Section 7 Consultation (informal), and written concurrence from United States Fish and Wildlife Service will be obtained before implementing Group B improvements HD-4, HD-5, HD-6, and water troughs and pipelines on HD-2⁹.

Proposed range improvements on the Sedow Allotment, all included in Group A, are not near flycatcher habitats and no effects on flycatchers are expected from constructing these improvements.

Narrow-headed Gartersnake

Potential adverse effects from range improvements could occur if improvements are located in such a way that they encouraged livestock use to increase within potentially suitable narrow-headed gartersnake (gartersnake) habitat. Livestock have the potential to alter riparian or aquatic habitats in a variety of ways. This species was introduced into Ash Creek by Arizona Game and Fish Department in 2016 onto private lands approximately one to two miles upstream from the Haystack Butte Allotment. The nearest of the proposed improvements to gartersnake habitat are HD-10 and HD-11, both in Group A (Figure 2)¹⁰. These improvements are planned within the Upper Ash Creek and Ash Creek Pastures downstream from the introduction sites. Throughout most of this segment of Ash Creek, the creek runs through a steep canyon section inaccessible to livestock in many places,

⁷ U.S. Department of Agriculture, Forest Service. 2011. Tonto National Forest. District electronic files, southwestern willow flycatcher reports, surveys, and summaries, 2007-2012. Tonto National Forest, Globe, AZ.

⁸ Goguen, C.B. and N.E. Mathews. 2007. Local gradients of cowbird abundance and parasitism relative to livestock grazing in a western landscape. *Conservation Biology* 14(6):1862-1869.

⁹ A small project biological evaluation was prepared for Group A improvements and included in the project record.

¹⁰ A small project biological evaluation was prepared for Group A improvements and included in the project record.

but not all. The planned improvements are one half to three quarters of a mile from Ash Creek, and negative effects to Ash Creek from constructing these upland range improvements are not expected at this distance. The additional permanent upland water sources will contribute to better livestock distribution within these pastures, potentially reducing existing livestock impacts to Ash Creek riparian and aquatic habitats.

Effects to Forest Service Sensitive Species

Sensitive species are defined as “those plant and animal species identified by a Regional Forester for which population viability is a concern.” Forest Service sensitive species likely occur in proximity to the proposed range improvements. Based on major habitats present in the vicinity of new range improvements 13 sensitive are expected in the project vicinity. Some sensitive species such as lowland leopard frog and sensitive bats may benefit from use of the water and forage resources made available at and surrounding constructed water developments. However, water developments may also contribute to increased mortality and predation on individuals of sensitive species, depending on construction design, maintenance, and location of new developments. Individual sensitive animals, and possibly plants may be affected, but effects on sensitive species populations are not expected from proposed project actions¹¹.

Effects to Migratory Birds

Executive Order 13186, January 10, 2001, directs federal agencies to support migratory bird conservation and to “ensure environmental review processes evaluate the effects of actions and agency plans on migratory birds, with emphasis on species of concern”. Twenty-two species of migratory birds expected to occur in six Arizona Breeding Bird Atlas habitat types found in the project area were evaluated. The proposed actions could cause effects on individual migratory birds including unintentional take of individual birds. However, no measurable effects are expected on any migratory bird populations because many migratory birds have large ranges throughout many states and countries¹². Some migratory birds may use water and forage resources at new water developments.

The project will not measurably affect levels of snags and dead and downed wood, an indicator of habitat quality, because only about an acre of vegetation will permanently be removed to place improvements. Dead and downed wood can refer to any piece of native vegetation on the ground. A few snags and pieces of dead and downed wood may be removed while constructing improvements.

Effects to Forest Plan Management Indicator Species

Management indicator species (indicator species) were selected during the Tonto National Forest planning process to adequately monitor implementation of project actions on wildlife habitat and species diversity. For the four indicator habitats within the project area twelve indicator species are anticipated to be present. The footprint of the proposed range improvements is too small to measurably affect forest-wide habitat or population trends for indicator species or their habitats¹³. Therefore, the Proposed Action will not have a significant effect on indicator species.

¹¹ A small project biological evaluation summarizing project effects on sensitive species is included in the project record.

¹² A small project migratory bird report including any opportunities identified to restore or enhance migratory bird habitat is included in the project record.

¹³ A small project management indicator species report is included in the project record.

Effects on common wildlife

Some game and non-game species may benefit by increased access to habitats due to increased water availability at new water developments. Habitats surrounding water developments may become modified from intensive use of the development. Habitat alteration is generally greatest nearest the water source and decreases with distance from the water source. The extent wildlife will use the proposed water developments and surrounding habitats will vary with a variety of factors including design, permanency of water in troughs, size, maintenance, location, and type and the condition of surrounding habitats. Troughs are best placed in open area with grass cover surrounding them so cattle and many wildlife species can easily access them. However, species using troughs as cover, such as smaller mammals and amphibians, may not benefit from this placement. The Proposed Action will not have a significant effect on common wildlife.

Effects to Wildlife Water Sources

Where springs or creeks are the source for water at new developments, habitats at and near those source springs or stream reaches may be modified and habitat quality and quantity may be reduced. New wells may affect wildlife habitat quality if riparian habitats near wells are adversely affected. The extent of any effects is uncertain and would depend on well location, proximity of well to existing riparian habitats, and amount and timing of water pumped. Pumping water from new wells during higher flow periods and less or none during low or base flow periods, as specified in the project design features, will minimize these effects.

Supplying water for livestock from drilled wells could indirectly benefit wildlife because, if managed properly, well water could decrease the needs for livestock to water from springs. This will be the case at Walnut Springs. Water from drilled wells in excess of livestock needs could also be used to recharge dried up springs, which could be a substantial benefit to migratory birds as well as local wildlife species.

Effects of Corrals and Livestock Holding Traps

No new corrals are proposed in the Proposed Action. One existing corral is proposed to be modernized with additional water sources in Group A. One new holding trap is proposed in Group B to more efficiently move cattle during pasture rotations. Corrals effectively remove or reduce wildlife habitat from the area inside the corral. A few native birds that utilize habitats with low or no ground cover will benefit from use of corrals. Other wildlife species may use water troughs that are present inside corrals. Brown-headed cowbirds (see southwestern willow flycatcher discussion) are often observed in large numbers at corrals. Brown-headed cowbird eggs have been documented in the nests of at least 220 host bird species.

Holding traps are generally used to capture, hold, and move livestock among pastures. The effects of holding traps are similar to the effects of corrals. The effects of traps would vary depending on how much vegetation is removed during use of a trap, season of use, its size, and number of livestock using it. Traps, corrals, and water troughs installed to distribute and manage livestock become livestock concentration areas. Concentrating livestock may have a number of effects on wildlife and their habitats such as removing forage, reducing cover, modifying habitat structure, trampling nests, eggs, and juvenile wildlife, and increasing brown-headed cowbird brood parasitism and predation on many bird species. However, use of corrals and holding traps is intermittent and temporary to facilitate more efficient pasture rotations and increase distribution of currently authorized livestock.

Heritage Resources

The Haystack Butte and Sedow Allotments are known to contain evidence of prehistoric occupation and agricultural modification by people related to various archaeological traditions over a period of 8,000 to 12,000 years. Additionally, these allotments contain many historic sites reflecting the use and occupation by Apache and Yavapai hunters, gatherers, and farmers, Anglo ranchers, stockmen, miners and prospectors, Basque and other Iberian and Latin American shepherders, and the current land managing agency, USDA Forest Service. A discussion of the cultural sequence, including both the prehistoric and historic periods, for this area of southern Arizona is presented in Wood *et. al* (1989)¹⁴ and will not be repeated here. The reader is referred to that document for cultural sequence information.

To date, fifty-nine (59) known archaeological sites have been identified in the Haystack Butte and Sedow Allotments. Of these sites, fifty (50) contain evidence for prehistoric occupation and eight (8) contain evidence for historic period occupation. The remaining one (1) site is of unknown cultural or temporal affiliation. Several of the prehistoric sites appear to be pithouses (individual and village). Additional prehistoric site types include large architectural ruins, agricultural features, fieldhouses and artifact scatters (to include lithic tool, pottery sherd, and other artifacts). Historic site types include towns, farmsteads, and transportation corridors.

Seven (7) archaeological sites are considered eligible for the National Register of Historic Places (NRHP), two has been assessed as not eligible for the NRHP, and fifty (50) have not been evaluated against NRHP significance criteria. Summary information on the archaeological sites, as well as maps showing the locations of the cultural resources, will be presented in an upcoming survey report. The Tonto National Forest Heritage Inventory Forms (on file with the Tonto National Forest) provide more detailed descriptions of each of the archaeological sites.

Archaeological survey for this project was conducted in accordance with 36 CFR 800.14(b)(2), which allows federal agencies to create a Section 106 process that differs from the standard review process and that will apply to all undertakings under a particular program. Such agreements are typically used by agencies with programs that have undertakings with similar or repetitive effects on historic properties in order to avoid the need for a separate Section 106 review for each project. Long-term consultation with SHPO and Region 3 policy has resulted in the *First Amended Programmatic Agreement Regarding Historic Property Protection and Responsibilities between the USDA Forest Service Region 3, the State Historic Preservation Officers of Arizona, New Mexico, Texas, and Oklahoma, and the Advisory Council on Historic Preservation*, signed 12/24/03 (R3PA). This agreement, specifically, *Appendix H, Standard Consultation Protocol for Rangeland Management* developed pursuant to Stipulation IV.A of the *Programmatic Agreement*, is considered to be the “standard operating procedure” for treating potential grazing impacts to heritage resources on the Tonto National Forest. Appendix H states that standard Section 106 process will be implemented on all range improvement and ground-disturbing management practices that are planned and have been identified at the time of this environmental analysis. This process is ongoing and will be completed prior to a decision for this project.

The installation and maintenance of range improvements typically require new ground disturbance. Projects requiring new ground disturbance, by definition, have the potential to adversely affect

¹⁴ J. Scott Wood, E. McAllister, and Michael A. Sullivan 1989 *11,000 Years on Tonto National Forest*. Southwest Natural and Cultural Heritage Association, Albuquerque, NM. On file at the Tonto National Forest, Supervisor's Office, Phoenix, AZ.

significant cultural resources. In general, effects on the cultural resources of the various activities that are proposed for this project are expected to be as follows:

- In those project areas where no historic properties (archaeological sites meeting National Register criteria) are present, proposed project activities have No Potential to Affect cultural resources.
- In those project areas in which ground disturbing activities will be carried out, where historic and/or unevaluated properties are present, and where Site Avoidance is feasible and is implemented, the proposed project activities are expected to have No Effect on cultural resources.
- Where archaeological sites occur where site avoidance is not feasible, the Forest may use many available mitigation measures and develop a mitigation plan that will result in a finding of No Adverse Effect on historic properties.

If potential impacts to heritage resources are found, the forest will use mitigation measures to avoid or minimize effects. For example, proposed improvements could be relocated or redesigned to avoid direct or indirect impact to historic properties.

Given the non-renewable nature of heritage resources – prehistoric as well as historic archaeological sites—any portion of a given site either damaged or removed diminishes its cultural and scientific value permanently. Therefore, all effects to heritage resources are considered cumulative. Provided that appropriate mitigation measures are implemented, it is not expected that any of the proposed project activities will result in additional adverse effects to the cultural resources referenced in this report. It is expected that there will be no change in the condition of the cultural resources over the existing condition.

Finding of No Significant Impact

The Globe District Ranger, the responsible official for this project, is responsible for evaluating the effects of the project relative to the definition of significance established by the Council for Environmental Quality (CEQ) Regulations (*40 CFR 1508.13*). This Final Environmental Assessment for Sedow and Haystack Butte Range Improvement Project (Final EA), including any incorporated reports and the comment response report in the project record, have been reviewed and considered by the responsible official in determining that the proposed action will not have a significant effect on the quality of the human environment. As a result, no environmental impact statement will be prepared. The rationale for this finding is as follows, organized by sub-section of the CEQ definition of significance cited above.

Context

For the proposed action and the no grazing alternative, the context of the environmental effects is based on the environmental analysis in this Final EA. In terms of the scale and scope of this project, this project proposes the authorization of new water developments: three wells, 42 troughs, 12 water storage tanks, and approximately 22 miles of pipeline. This is compared to one well, six troughs, four water storage tanks, and approximately 1.8 miles of pipeline that are currently identified as existing on the Sedow and Haystack Butte Allotments. Sedow Allotment is approximately 40,000 acres in and is broken into 17 separate grazing pastures. Haystack Butte Allotment is approximately 15,600 acres and has 10 separate grazing pastures. Water storage tanks will increase by 300 percent and miles of pipeline will increase by approximately 12,000 percent, allowing water to be stored and

moved to upland areas with adequate forage. Available troughs in the uplands will increase by approximately 4,200 percent, reducing the need for livestock to water from and congregate near springs and seeps. However, this would only increase these watering areas to an average of approximately one trough per 12,000 acres across both allotments.

Intensity

Intensity is a measure of the severity, extent, or quantity of effects, and is based on information from the effects analysis in this Final EA, and the references in the project record. The effects of authorizing additional water developments on these allotments have been appropriately and thoroughly considered with an analysis that is responsive to concerns and issues raised by the public. The agency has taken a hard look at the environmental effects using relevant scientific information and knowledge of site-specific conditions gained from field visits. This finding of no significant impact is based on the context of the project and intensity of effects using the ten factors identified in *40 CFR 1508.27(b)*.

1. Impacts that may be both beneficial and adverse. A significant effect may exist even if the Federal agency believes that on balance the effect will be beneficial.

Both beneficial and adverse effects were identified and analyzed in the Final EA by resource section. Under the Proposed Action, range improvements will be added which will improve distribution of cattle. Adverse impacts will include trampling by workers or defoliation of established vegetation during installation and could include expansion of invasive species into nearby disturbed areas; however, design features have been included in the Proposed Action to decrease these potential effects. Other beneficial and adverse impacts of the Proposed Action are detailed in the analysis in this Final EA and the supporting project record. This finding of no significant impact is neither the result of balancing beneficial and adverse impacts nor biased by beneficial impacts of the Proposed Action.

2. The degree to which the proposed action affects public health or safety.

Installation of the water developments proposed in the Proposed Action is of limited scope not expected to present hazards to workers or the public. Workers installing water developments are expected to adhere to the design features identified in the Proposed Action, as well as Best Management Practices and general safety standards. No significant impacts on public health and safety were identified.

3. Unique characteristics of the geographic area such as the proximity to historical or cultural resources, parklands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.

As detailed in the heritage resources section of this Final EA, many historic resources and sites exist on the Sedow and Haystack Butte Allotments. Reports on the archeological surveys conducted for the proposed water developments are being prepared, and their results will be available before a decision is signed for this project. However, where archeological sites were identified, water development locations were modified to avoid them, mitigating any impacts to these sites.

For this project, there are five proposed water troughs and accompanying pipelines (approximately 1.4 miles) within the Salt River Canyon Wilderness boundary on the Haystack Butte Allotment. These troughs will be located near Windy Ridge at Black Mesa corrals. Currently, only one seasonal water source is available within this pasture in the uplands. Grazing is currently authorized within the Salt River Canyon Wilderness. During drier years, this source does not supply adequate stock water and cattle naturally tend to migrate to the Salt River for water. Both allotments have updated term grazing permits which prohibit cattle from accessing the Salt River. With the strategic placement of these proposed water developments, in conjunction with herd management done by the grazing permittee such as physically driving cattle to more upland areas of the pastures using horses, the goal of this project is to draw cattle further from the Salt River and maintain them in the uplands, which will reduce or eliminate grazing pressure within the riparian areas and enhance the wilderness experience of river users. Additionally, design features were incorporated into the Proposed Action specifically to mitigate any effects to these resources¹⁵. The action will not adversely impact any resources considered to have unique characteristics.

4. The degree to which the effects on the quality of the human environment are likely to be highly controversial.

There is no known scientific controversy over the effects associated with range improvements on active grazing allotments. Water developments are authorized and installed by permittees in other areas throughout the Tonto National Forest and on many other national forests across the United States. Furthermore, the effects have been analyzed, in compliance with *40 CFR 40 1500.1* and *36 CFR 220.7*, in this Final EA and include design features to mitigate effects raised both externally and internally throughout the NEPA process. The analysis in this Final EA represents the judgement and expertise of resource management professionals who have applied their knowledge to similar projects and resources in the past. The water developments proposed are commonly-used resource management practices described in agency directives, prescribed in the Forest Plan, and used by other land management agencies and are consistent with the best scientific information currently available and current Forest Service direction. While some members of the public are opposed to livestock grazing on public lands and others view the Forest Service as too restrictive in its management, this action does not modify currently authorized number of livestock or grazing management generally. Installation of range improvements is not highly controversial within the context of NEPA.

5. The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.

The Tonto National Forest has considerable experience with authorizing the types of activities in the Proposed Action. The effects analysis in this Final EA shows the effects are not uncertain, and do not involve unique or unknown risk. Effects of this action will be similar to the effects of

¹⁵ More information about effects to Recreation Resources can be found in the project record.

past similar actions. Based on these findings, there are no unique or unusual characteristics about this project that will constitute an unknown risk upon the human environment.

6. The degree to which the action may establish precedent for future actions with significant effects or represents a decision in principle about a future consideration.

The decision to authorize additional water developments on the Sedow and Haystack Butte Allotments, as detailed in the description of the Proposed Action, does not establish a precedent for future actions with significant effects. Future actions will be evaluated through an environmental analyses process, in compliance with *40 CFR 1500-1508* and *36 CFR 220*.

7. Whether the action is related to other actions with individually insignificant but cumulatively significant impacts. Significance exists if it is reasonable to anticipate a cumulatively significant impact on the environment. Significance cannot be avoided by terming an action temporary or by breaking it down into small component parts.

The cumulative effects of the Proposed Action are disclosed, along with other effects, for each resource area in this Final EA. These effects evaluated the combined effects of the project with past, present and reasonable foreseeable future actions. Based on the information contained in this Final EA, the supporting project record, and the information identified during public review of the EA, there are no cumulatively significant impacts.

8. The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources.

The Proposed Action will have no significant adverse effect on districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places. In instances where proposed improvements will involve any potential for ground disturbance, such as stock tanks and other water developments, a complete archaeological survey was conducted for areas which had not been previously surveyed or had outdated surveys—surveys that do not conform to current standards. Water developments will be placed to avoid these resources, thereby mitigating any effects. All inventoried heritage sites are treated as eligible for the National Register of Historic Places with the exception only of those that have been formally determined to be not eligible in consultation with the State Historical Preservation Office (SHPO). Archeological clearance will be approved with all necessary consultation with SHPO prior to issuing any decision regarding the construction of all improvements.

9. The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.

No Southwestern willow flycatcher (flycatcher) designated critical habitat or narrow-headed gartersnake (gartersnake) designated habitat that has been determined to be critical under the Endangered Species act of 1973, as amended, that occurs in or near the project area. As detailed in the Wildlife Resources section of this Final EA, Group A improvements are far enough away

that they will not affect any endangered or threatened species or its occupied, unsurveyed, or potential habitats¹⁶.

As detailed in the Wildlife Resources section of this Final EA, Group B improvements have the potential to indirectly affect individual flycatchers, and local populations within occupied or unsurveyed habitats in proximity to the Group B improvements. Although any effects by livestock using these newly constructed improvements should be small, a biological assessment of these effects will be developed through Section 7 Consultation (informal), and a written concurrence from United States Department of Interior, Fish and Wildlife Service will be obtained before implementing Group B improvements.

10. Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment.

The Proposed Action will not violate Federal, State, and local laws or requirements for the protection of the environment. It is fully consistent with the Forest Plan, *National Forest Management Act*, *Endangered Species Act*, *National Environmental Policy Act*, along with all other applicable laws and requirements for the protection of the environment.

¹⁶ A small project biological evaluation was prepared for Group A improvements and included in the project record.