

Horseshoe Ranch Water Rights

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Deeded Water Rights

Horseshoe Ranch now consists of 198.8 acres of deeded private land. Approximately 40 acres of that land has been or is in current irrigated crop production. Crops produced historically include alfalfa, fruit trees and turf grass. The irrigation of the property is provided by several different water sources that have the structural ability to deliver water to different places of use and for different purposes.

Surface water is collected from Silver Springs and Long Gulch Springs and transported via pipeline by gravity flow to the property. It is used to feed the approximately 2 acre pond, the domestic use on the property and the irrigation of the 25 acres. Horizontal Well (55-623449,

39-21122) lists domestic and the stockpond on the deeded as the uses in addition to irrigation and stockwater/wildlife yet is on the public lands.

The Claims are where the river flows through the sections. Water is not diverted for these Claims.

Several water rights claims exist for irrigation on the ranch, which can be provided from several separate sources. Silver Creek Spring is one source of water. Water right application 33-42303 identifies 50 acre-feet/annum (afa) for irrigation. Water is delivered via an underground pipeline to the property plumbing system delivering water to the houses and with a piped diversion to the stockpond. Silver Creek Spring has a corresponding Statement of Claim filed (36-105225). Statement of Claimant forms also exists for this spring (39-21123) which includes several forms (several forms seemingly unrelated to Silver Creek Spring are filed under the same 39-21123; see ADWR records):

- Other Uses Form - identifies 45 afa and 2.5 af storage right for stock watering from Silver Creek Spring and Horseshoe Ranch stockpond;
- Irrigation Use Form - identifies 120 afa and 2 af storage right from Silver Creek;
- Irrigation Use Form - identifies 120 afa and 2 af storage right from Horseshoe irrigation well #623446 which also lists stockpond and domestic as beneficial uses;
- Irrigation Use Form - identifies 40.3 afa and 2 af storage right for water from Long Gulch horizontal well #623449. Lists primary use as domestic but also irrigation and stockwater from the stockpond;
- Stockpond Use Form - identifies 2 af Horseshoe Ranch stockpond filled from Silver Creek spring, irrigation well or spring;
- Other Uses Form - identifies 64.5 afa and 2.4 af storage right from Silver Creek Spring for irrigation and stock watering

The Horseshoe irrigation well can also provide water for irrigation. The existing Statement of Claim (36-105226) filed in November of 2003 by Charlie Wilcox identifies 40 AF for yearlong irrigation, and 16 AF for yearlong stockwater. The claim states that beneficial use for stockwater dates to 1880 and for irrigation to 1915. Original water diversion was from the streambed of the Agua Fria River, but claimant and claimant's predecessors developed alternatives, including the current irrigation well. The claim states directly that the well pumps from the subflow of the Agua Fria River. The SOC (39-21113), filed in July of 1985 by Louis H. Wingfield, is for use of 120 AF annually for irrigation use, with a storage right of 2 AF. The irrigation statement indicates the immediate area had a history of being irrigated since 1915. The irrigation statement indicates there are stockpond and domestic uses also, but the online records don't include a statement of claimant for the storage pond nor does it indicate use as a stockpond. In the comments section of the irrigation statement is handwritten: *"The well is shallow and located close to the river, and obviously draws and effects (sic) the surface water from the river."* Currently this water can only be pumped directly from the ground and delivered to the fields for irrigation. The basis for this filing is the well registration filing 55-623446, filed as an existing well on Aug. 3, 1982, by Louis H. Wingfield, the form indicates the

uses as irrigation, stockwater, and domestic, with 30 acres to be irrigated from the well.

The Horseshoe “Old” well was completed around 1920 and registered by Wingfield in 1982. Wingfield filed a SOC (39-21110) in 1985 for 1 AF annually to be used for gardens and domestic yards (with no storage right). Wilcox filed a claim (36-105227) in 2003 for 3 AF for stockwater, 5 AF for domestic use, and 1 AF for irrigation. The claim states that the date of first beneficial use was 1880 and that the well was located at a point of diversion from the Agua Fria River prior to 1920.

For both of these wells it appears that Wingfield failed to file Statements of Claim (36’s) under the Water Rights Registration Act (A.R.S. § 45-180, et seq.) for using and claiming the right to use public waters for both pre and post June 12, 1919 claims in use prior to March 17, 1995. This step is one of the administrative steps required under public water code to perfect a water right. On Nov. 14, 2003 a subsequent owner, Wilcox, submitted the 36 filings which explains why the 36’s filings were filed later than the 39 filings.

Domestic Use

Numerous water sources tied to the Horseshoe Ranch deeded lands have identified domestic as reasonable or beneficial uses for the water. They are:

- **Long Gulch Horizontal well**
(39-21122) irrigation form does not include a specific domestic volume
- **Old Horseshoe Well**
(36-105227) includes a claim for 5AF for domestic use
- **Horseshoe Irrigation Well**
SOC (39-21113) includes a statement for domestic use for 15 persons/5 dwellings, with no domestic volume specified. The basis for this filing is the well registration filing 55-623446, which listed beneficial uses as irrigation, stock watering, and domestic
- **Agua Fria River**
Consists of a 36-24416 filing which identifies stock watering from the stream and an unspecified proportion of the original 2.5 million gallons for continuous domestic use. However, a subsequent 39-21105 filing for the Agua Fria River does not identify domestic as a use for the water from the Agua Fria River.
- **Long Gulch**
Consists of a 36-24417 filing which identifies stock watering from the stream and an unspecified proportion of the original 2.5 million gallons for continuous domestic use. There is no subsequent 39 filing to correspond with this 36 filing as was done with the Agua Fria River.
- **Indian Creek**
39-21106 does not include a domestic use (filed in 1985); however the 36-24420 includes an unspecified proportion of the 2.5 million gallons for domestic use (filed in 1979).
- **Silver Creek Spring**
Filings associated with Silver Creek Spring includes 8AF (39-21123) or 14AF

(36-105225), depending on which filing you look at, for domestic use. There appears to be an upper limit of 8-14AF/year for domestic water use associated with Silver Creek Spring.

- **Silver Creek**
consists of a 36-24419 filing which identifies stock watering and an unspecified proportion of the original 2.5 million gallons for continuous domestic use. There is no subsequent 39 filing to correspond with this 36 filing as was done with the Agua Fria River, above.

Stock watering Use

Again, numerous water sources have been used for watering stock on and around Horseshoe Ranch for over 100 years. The existing water sources that have identified beneficial uses for stock watering are the following:

- Silver Creek Spring
- Silver Creek
- Horseshoe Irrigation Well
- Old Horseshoe well
- Agua Fria River
- Long Gulch
- Indian Creek
- Long Gulch Horizontal Well

Allotments

The following privately-held water rights, adjudication claims and wells are on public lands and all filings have been transferred to the Commission (see Map 4):

- Eight CWR for the eight stock tanks
- One stockpond claim (38)
- Five well registrations
- Five Claims (36's)
- Sixteen SOC's (39's - claims to water rights in the Gila River Adjudication)

As of July 2012, ADWR has stated that all water rights associated with public lands will go to the land management agency or the livestock permittee. The current recommendation is to work with the Assistant Attorney General and ADWR to reevaluate the unique situation under which the Ranch is managed and determine the eligibility of AGFD to retain water rights acquired and transferred to the Commission at the time of acquisition. In the event that ADWR does not change position, the recommendation for all public land water rights and claims is to work with ADWR and BLM to reassign them to the BLM rather than the Horseshoe Ranch base property lessee (allotment permittee/lessee); and to amend the water

rights documents to include beneficial use for wildlife. This recommendation applies to all water rights originating from FS or BLM lands.

In preparation for the Gila River Adjudication there should be a statement of claimant (39 filing with the adjudication court) and a surface water filing (33, 36, or 38 claim) to support the filing. Claims that have been certificated should have a CWR and 39 statement of claimant filing; and may or may not have other filings.

Surface water is collected at each place of use for the eight certificates of water right for stockwater. In two locations, surface water is piped from a drainage into stock tanks (Bishop or Agua Fria to Pipe Tanks and Indian Creek to Horseshoe Stock Tanks in Boone Pasture.

The Claims are where the river flows through the sections. Water is not diverted for these Claims.

Surface water is collected at the place of use for the Perry Mesa Tank.

All of the stock tanks on the Horseshoe allotment were constructed prior to the Santa Rita Land Exchange in 1990. The priority date of a water right granted by the Stockpond Registration Act of 1977 depends on the date the owner of the stockpond files a claim of water right for the stockpond. *If the owner files a claim of water right prior to March 17, 1996, the priority date is the date of construction ("38" filings). Otherwise, the priority date is the date of filing of the claim ("39" filings).* A water right granted by the Stockpond Registration Act of 1977 is junior to the following water right: 1) any water right issued pursuant to an application to appropriate filed with the State Land Department or its predecessors prior to August 27, 1977; 2) rights to the use of the mainstream waters of the Colorado River; 3) rights previously acquired or validated by contract with the United States, court decree, or other adjudication; and 4) rights acquired prior to June 12, 1919 and registered under the statement of claim procedure ("36" filings).

Name	CWR	Statement of Claimant (39)	Statement of Claim (36 or 38)	Filings complete	Construct Date	Claim AF	Priority Date
Boone Tank	3947(R-2296)	39-21118		yes	1964,July15	1.5	1963, Dec 11
Tubby Tank	3948 (R2299)	39-21116		yes	Est.1940	1.5	1963, Dec 19
Bull Pasture Tank	3949 (R2300)	39-21117		yes	Est.1948	1.0	1963, Dec 19
Pipe Tank	3946 (R2283)	39-21121		yes	1964,Apr.1	1.9	1963, Oct 3
South Baby Tank	3981(R-2298)	39-21114		yes	1964,June1	0.25	1963, Dec 19
Joe's Tank	3982(R-2301)	39-21115		yes	Est.1940	1.0	1963, Dec 19

Batt Tank	3980(R-2302)	39-21112		yes	Est.1956	1.0	1963, Dec 19
Double Tank	3983(R-2297)	39-24221		no	Est.1940 (ASLD)	2.0	1963, Dec 19
Perry Mesa Stockpond		Missing	38-24409	no	Est.1925, June	2.0	
Lousy Tank		39-21085	38-90965? – Per Image Records, in the name of BLM	?	1925	2.5	Claimed 1925
Hennessey Tank		39-21084	38-90972 – Per Image Records, in the name of BLM	?	Prior 1935	~2.5	Claimed 1935
TY Tank		39-21173	38-90971? – Per Image Records, in the name of BLM	?	Prior 1960	~0.5	
Name	CWR	Statement of Claimant (39)	Statement of Claim (33, 36, 38)	Filings complete	Federal filings?	Claim AF	Priority Date
Agua Fria*		39-21105 (partial)	36-24416.0004	yes	Yes/partial BLM to	2.25 million gal/yr	100 yrs use;1875
Long Gulch*			36-24417.0004		Yes/partial BLM to	2.25 million gal/yr	100 yrs use;1875
Bishop Creek		39-21109	36-24418	yes	No	2.25 million gal/yr	100 yrs use;1875
Silver Creek	3981 (R-2298)?	39-21114?	36-24419.0004	Yes?	Yes/partial BLM to	2.25 million gal/yr	100 yrs use;1875
Indian Creek*		39-21106	36-24420.004	yes	Yes/partial BLM to	2.25 million gal/yr	100 yrs use;1875

Stock Tanks and Stockponds

There are eight certificated water rights for stock tanks on public land. All tanks have a CWR OR SOC except for Double Tank (CWR 3983, R-2298). The Department has filed a SOC (39-24221).

There is one stockpond, Perry Mesa Tank. There is no SOC (39) for this stockpond. There are three stock tanks with SOC's (39's) but no CWR or underlying basis (36 or 38 filing)– Lousy Tank, Hennessy Tank, TY Tank in the name of the Commission. According to ADWR image records, all 3 tanks have 38's in the name of the BLM, transferred from ASLD to BLM at the time of the exchange. At the time of 39 filing, July 23, 1985, Wingfield claimed use for 50 years and stated that all 3 tanks had been previously filed on, but there are no records from ADWR to indicate previous filings by Wingfield. All 3 SOC's were filed prior to the Santa Rita Land Exchange and were located on State trust land grazing lease 05-02074-02 (See TY tank SOC). No further action will be taken for these tanks.

Water is pumped from the Agua Fria River (CWR-3946) via a steel pipeline system up onto Perry Mesa to fill Pipe Tank #1 and Pipe Tank #2 when livestock are present. The Pipe Tank #2 (T10NR3Esec29) is ~3/4 mile away in a different section and has no claim filed, yet water is piped from CWR-3946 to fill the tank. The tank does not collect surface flows but was designed to hold water pumped from the Agua Fria River.

CWR-3981(R2298) was perfected and issued to L. Wingfield in 1982. This CWR allows 1 million (3AFA) gallons/year of water withdrawal from Silver Creek Spring for stock watering, to be piped to South Baby Tanks on BLM land. The designated use and point of use should be reevaluated to determine if amendments to the CWR are advantageous. Currently the pipeline extends to Double Tanks which is currently not authorized under the CWR (see Map 6).

There exists uncertainty with respect to two tanks on Indian Mesa and which one relates to CWR-3947. Review of the records appears to suggest the filing most appropriately pertains to the stock tank in Sec. 2 not Sec. 3. The CWR calls this Boone Tank and the range improvement assignments call it Dirt Tank #3. There also exists another dirt tank with a steel storage tank and pipeline system leading to a POD on Indian Creek. This diversion and storage does not seem to be documented in ADWR records. This tank is possibly called Teacup Tank and is listed as Horseshoe Stock Tank on the BLM range improvement list. The tank was designed to hold pumped water and does not collect surface flows. Water is currently collected from Indian Creek (as mapped and at UTM datum NAD83 12S 404160E, 3793515N) and piped up onto the mesa to this stock tank.

Surface Water Claims

There are five claims for streamside watering use by livestock out of the respective rivers (Table 4). All but one, Bishop Creek, include domestic uses and only one, Agua Fria River, includes wildlife as a beneficial use. The claims are for all sections of each river that traverses the Ranch and allotments. The claims are partial assignments retained by Horseshoe Ranch after a 1988 land exchange with BLM, at which time a portion of the water rights were assigned to the BLM. The underlying basis for the claims is the historical (over 100 years) and continuous practice of livestock watering along the streams since 1875.

Name	CWR	Statement of Claimant (39)	Statement of Claim (33, 36, 38)	Filings complete	Federal filings	Claim AF/annum	Priority Date
Agua Fria*		39-21105 (partial)	36-24416.0004	Yes	Yes/partial to BLM	2.25 million gal/yr	100 yrs use; 1875
Long Gulch*			36-24417.0004	No	Yes/partial to BLM	2.25 million gal/yr	100 yrs use; 1875
Bishop Creek		39-21109	36-24418	Yes	No	2.25 million gal/yr	100 yrs use; 1875
Silver Creek	3981 (R-2298)?	39-21114 ¹	36-24419.0004	No	Yes/partial to BLM	2.25 million gal/yr	100 yrs use; 1875
Indian Creek*		39-21106	36-24420.004	Yes	Yes/partial to BLM	2.25 million gal/yr	100 yrs use; 1875

*Same claims on deeded; places of use and points of diversion traverse private land

¹There is uncertainty as to where this claim belongs, either with stock tanks (Table 2) or with surface water claims (Table 4); however both the 39 and 36 filings reference the CWR 3981. The horizontal well is also used to pump water to South Baby Tanks. This well has not been located to date (39-21114). From a practical standpoint, all 3 filings are related and the water intermingled, therefore, we list the 39-21114 in both sections of the report.

Wells

There are 7 well registrations and 3 SOC's associated with wells on the allotments (Table 5). New Mill Well (55-614126) and Bishop Well (55-614125) are wells that have a SOC in the name of the Commission, but registrations were acquired by Bureau of Land Management in the Exchange. Without an underlying basis for the SOC's, it is unlikely any water would be allocated to the Department at the time of adjudication. Preliminary reviews of ASLD documentation and well registrations for Perry, New Mill and Bishop Wells were completed to determine if there is a legal interest in the wells for the investments made at the time of construction by Wingfield and transferred to subsequent owners. It appears that at the time of construction Wingfield did not get prior approval to construct the improvements by the ASLD and subsequently forfeited all legal interests to ASLD per ASLD Grazing Lease #2074 documentation. Therefore, at the time of the

Exchange legal interests may have been transferred from ASLD to BLM. However, according to BLM (see correspondence BLM to ADWR 9-6-05 – Appendix D) ASLD never filed claim for these rights and so they were incorrectly assigned to BLM by ADWR at the time of the Exchange. Research by the Department’s Attorney General may be required on this issue.

There are five other wells. Only one of the five, Horizontal Well (55-623449), has a SOC (see III. Summary of water rights A. Deeded, for additional information). The status of infrastructure, functionality and location for well 55-623444 is unknown. Silver Creek Spring well registration (55-623442) reports a shallow wood casing well built ~1930 for the purpose of livestock watering located near the spring. No evidence currently exists at the location of this well. There is no well at the location for registration 55-623443. It is believed that Wingfield filed an incorrect location for the well (T10N, R3E, SWSW sec.14) and it is really Rugged Mill on TNF at (T10N, R4E, SWSW sec. 14).

Table 5. Wells

Name	Well Registration (55)	Statement of Claimant (39)	Statement of Claim (33, 36, 38)	Federal filings
New Mill Well	Acquired by BLM in the Exchange (55-614126, 39-22169)	39-21087		Yes 39-22169
Bishop Well	Acquired by BLM in the Exchange (55-614125, 39-22148)	39-21089		Yes 39-22148
Horizontal Well	55-623449	39-21122		Unknown
Long Gulch				
Perry Windmill	55-516655			Unknown
Well (Rugged Mill?)	55-623443			Unknown
Silver Creek Spring Well	55-623442		24416	Unknown
Well	55-623444			Unknown

Allotment well claims:

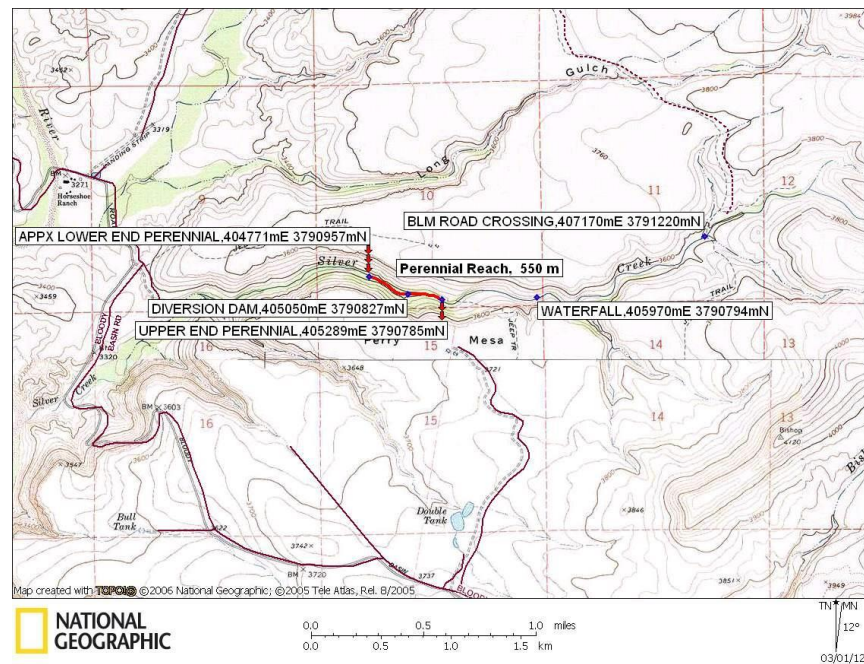
As of July 2012, ADWR has stated that all water rights associated with public lands will go to the land management agency or the livestock permittee.

Water Infrastructure and Water Use

Deeded

Historically surface water was collected from the Agua Fria River (Photo 1); however the right to divert surface water from the Agua Fria River, point of diversion (POD) for 39-21123, was

officially changed to Silver Creek in 1979. Surface water is collected from Silver Springs (Map 5; Photo 2 & 3) and Long Gulch Springs (Photo 4,5,6), at separate points of diversion, and transported via pipeline by gravity flow to the property. The Silver Creek Spring pipeline has a storage tank that increases capacity during periods of high demand, near the point of diversion. Water is collected from a pool behind a small concrete dam through a surface collection pipeline. The Long Gulch pipeline is reported as a 1.5" diameter; however both pipelines may vary within their lengths. The Long Gulch pipeline supplies water to at least one livestock trough between the POD and Ranch, and has no storage tanks plumbed to boost capacity. Both pipelines are used for the approximately 2.4 AF stockpond (Photo 10), livestock watering, the domestic use on the property and the irrigation of the 25 acres. See Map 6 for the approximate location of the pipelines and their POD.



Map 5. Silver Creek flows Feb. 23, 2012 and location of diversion dam; POD for 39-21114 Silver Creek Spring



Photo 1. Old Agua Fria River surface diversion pipeline



Photo 2 (upstream) and **Photo 3** (downstream). Silver Creek Spring POD 39-21114



Photo 4 & 5. Long Gulch Spring near the point of collection for pipeline POD 36-24417



Photo 6. Last visible evidence of Long Gulch pipeline at collection point

The Horseshoe Irrigation Well (55-623446) is primarily used for irrigation and was completed in 1956, to a drill depth of 120 ft. with a 14 inch diameter steel casing extending 50 ft. below the surface. It was rated with a maximum pumping capacity of 700 gallons per minute (gpm) and a static water depth of 20 feet on the date of filing. In recent years the well was connected to a center pivot irrigation system and a pipeline that watered pasture on the west side of the Agua Fria River. The well is also plumbed to provide water to a sprinkler system for the orchard. Currently there are no plumbed connections to dwellings for domestic use. The well is powered by a diesel engine driving the pumping system via a gear-head. (Photo 7 & 8)



Photo 7. Horseshoe Irrigation Well 55-623446



Photo 8. Central pivot irrigation connection

The Horseshoe “Old” Well (55-623448) was completed around 1920 at a depth of 40 ft., with a 48 inch rectangular casing, extending 30 ft. down (Photo 9). The casing is composed of steel and rock. It was rated with a maximum pumping capacity of 150 gpm and a static water depth of 18 ft. Water was pumped from the well using a windmill. The windmill is currently disconnected and in disrepair.



Photo 9. Horseshoe “Old” Well 55-623448

The water stored in the Horseshoe Ranch stockpond comes from two surface water sources for which there are existing surface water rights (Silver Creek Spring and Long Gulch Horizontal Well). Numerous surface water documents describe this water storage. The stockpond does not have its own water right but does have a Statement of Claimant filed with the Adjudication court (39-21123- Stockpond Use Form). The uses for the stockpond are described as irrigation and stock water. The stockpond is listed as having a storage capacity of 2.4 acre feet (Photo 10). The stockpond is filled by a gravity fed pipeline system that is controlled by a valve. The stockpond was originally constructed with an outflow that is also controlled by a valve, and which drains and flood irrigates the approximate 40 acres of crop production land which has been leveled and drains to the south (see Appendix E).

A stockpond renovation was initiated Spring of 2012 to remove sediment accumulations, reseal the stockpond, remove nonnative vegetation and bullfrogs, and construct a frog/snake barrier fence surrounding the stockpond (Photo 11) . The stockpond will be used as refugia for lowland leopard frogs, northern Mexican gartersnakes, Gila topminnow and desert pupfish. The size of the stockpond was not enlarged and the existing inflow system has not been relocated. The outflow delivery system has been eliminated. It is recommended that agricultural fields continue to be irrigated from the stock pond in the future via pumps while we pursue a change in beneficial use of some of the water from irrigation to fish and wildlife in the pond. Failure to continue use from the storage pond may result in the loss of greater than 240 acre feet of water rights.



Photo 10 and 11. Horseshoe Ranch stockpond pre-renovation Aug. 2011 and during renovation June 2012.

Allotments

Surface water is collected at each place of use for all stock tanks and the Perry Mesa stockpond, with three exceptions. In three locations, surface water is piped from an intermittent stream into stock tanks. Water is piped from Indian Mesa Draw (Photo 14) and Indian Creek (Photos 15-16) to Horseshoe Stock Tank in Boone Pasture (Photo 12-13; CWR 3947); and water is piped from Silver Creek Spring to South Baby Tanks in Double Tank pasture (Photo 17 & 18; CWR 3981); and water is piped from the confluence of Bishop Creek and the Agua Fria River (to Pipe Tanks on Perry Mesa in New Mill pasture (no photo; CWR 3946); The pipelines are constructed out of segments of steel piping with welded couplings and in all three cases traverse steep and rocky terrain with elevation rises of >200 feet to mesa tops (See Map 6). In recent years, ranch operators have used gasoline powered generators to pump water on a temporary basis timed with livestock use in the various pastures.

The remaining surface water claims are for livestock use along river reaches that flow through the allotments and water is not diverted for these Claims.



Photo 12 and 13. Horseshoe Stock Tank (no surface water claim) and pipeline to storage tank



Photo 14. Pipeline that supplies water to Horseshoe Stock Tank (no surface water claim) at crossing of Indian Mesa Draw which is possibly an alternate POD



Photo 15 and 16. Pipeline that supplies water to Horseshoe Stock Tank at POD in Indian Creek.

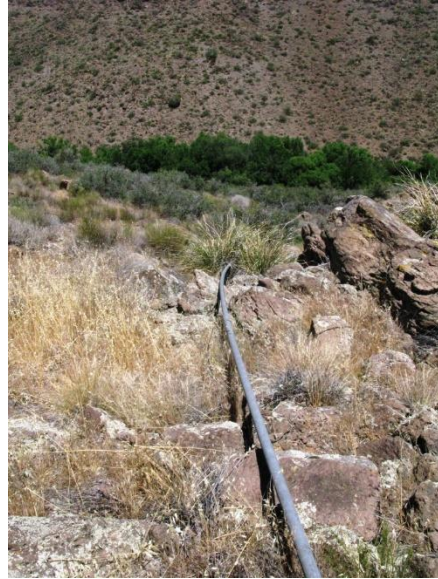
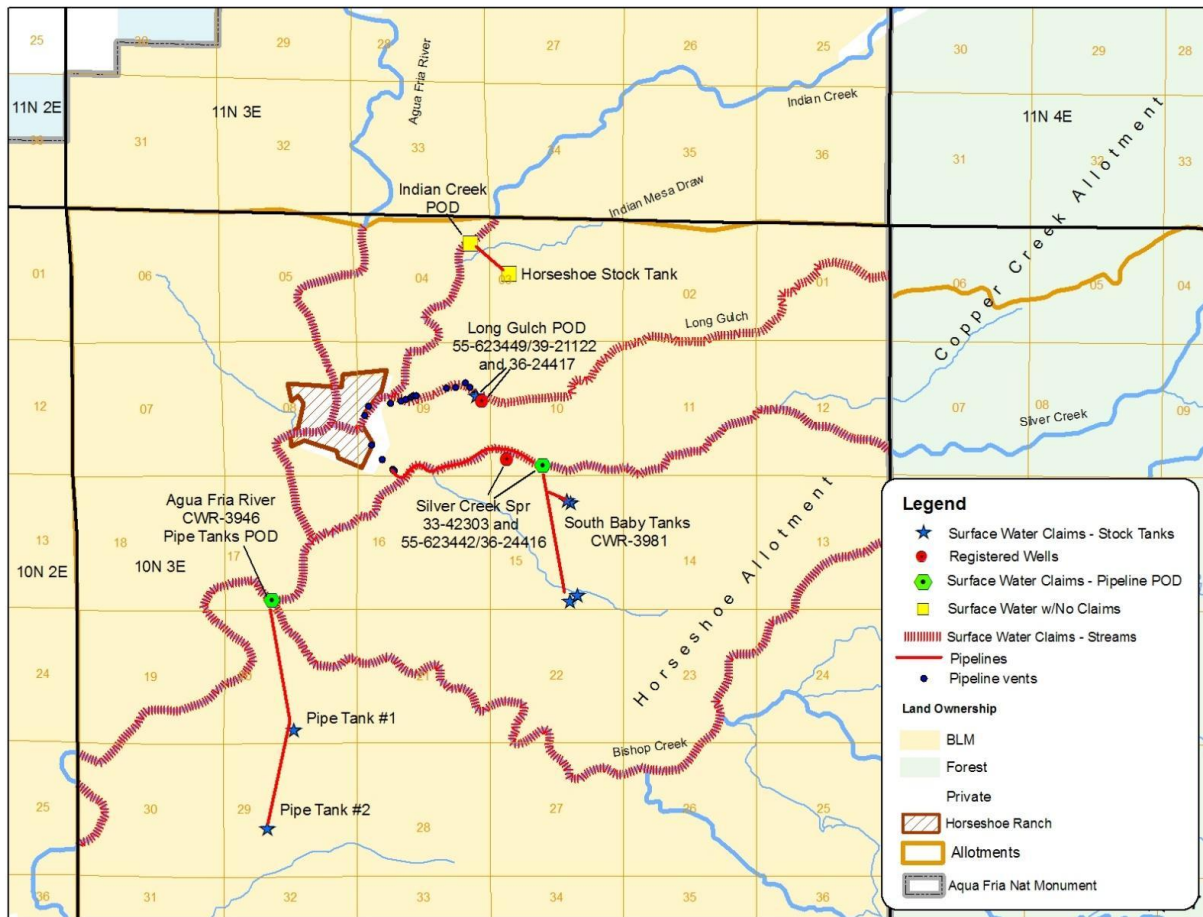


Photo 17 and 18. Pipeline from Silver Creek Spring to South Baby Tanks (CWR-3981) looking uphill and downhill towards Silver Creek Spring.



Map 6. Illustration of various pipeline systems with POD for allotments and deeded

Current Management Implications, Recommendations or Information Needs

The following section summarizes, to the best of our knowledge, how water has been used in the past by ranch operations (deeded, allotments and common to both); and how water should be used in the future to protect Department interests in water resources as it relates to the future judicial proceedings (Gila adjudication) in which the nature, extent, and relative priority of water rights will be determined. Most water sources (water rights claims) have at least one other use in addition to irrigation and the apportionment to the beneficial uses is not always stated or exacting in the various claims filings. Figure 1, page 12 illustrates the relationship between water sources and beneficial uses; and between those used on the deeded versus federal grazing allotments.

Deeded

According to the research and interpretation we have described herein, all water rights and claims originating from the deeded or from federal lands with a point of use on the deeded, should be used for irrigation, stock watering, and domestic purposes. In most cases the allocations from a source provide for multiple beneficial uses; with no specific quantification for a particular use (See Figure 1).

In order to protect legal standing for these claims the following actions must be taken:

Silver Creek Spring: application to appropriate 33-42303 (irrigation, stock water, fills pond)
– It has been determined that previous owner(s) failed to complete the application process to perfect the water right through issuance of a Certificate of Water Right. We recommend amendment of the current application to add domestic use and to proceed with the re-noticing process as soon as possible. If in the future AGFD decides to no longer use water to irrigate, we recommend converting all or a portion of the stated beneficial uses for irrigation/stockwater to fish and wildlife. The amendments to the application will require review and concurrence with the Assistant Attorney General and Executive Staff.

Continue to exercise water use for the stated beneficial uses associated with claims to the extent necessary while achieving water conservation and habitat/property management goals; and document use. According to the Arizona water code surface water rights must be utilized, a reasonable amount, once in five years. For the Ranch, this means continuing to irrigate, water livestock and supply domestic uses.

In addition, the following recommendations merit consideration and would be advantageous for managing water resources and water rights claims:

Evaluate the feasibility and options for additional and/or alternative water supply, delivery and/or storage to meet water demand on the Ranch; and pursue options that reduce reliance

on and/or impacts to surface water flows from Long Gulch, Silver Creek Spring and the Agua Fria River; and that meet water quality standards for domestic use. Taking such action would ensure a more reliable water supply of a higher water quality than what currently exists, and would facilitate wildlife habitat conservation actions associated with the purpose of the Ranch acquisition.

- Old Horseshoe well: well registration 55-623448 and Statement of Claim 36-105227 (irrigation, stockwater and domestic) – A renovation or relocation of the old well may not give advantage to access more water (current claim is for 5AF/3gpm + amendments) if the well is determined to draw from surface water at the time of adjudication, we would be limited to the amount in the statement of claim. The recommendation is to assess the feasibility and options to drill a new well that draws from groundwater and meets water quality requirements for domestic water. If the property is going to have high levels of visitor use there may be drinkable water requirements for additional water purification or certification that water is safe to consume (certification for public water supply). Filing for a Notice of Intent to Drill, Deepen, Replace or Modify a Well would be required to take any future action on the old well or drill a new well.
- Explore options to capture and transport water associated with surface water rights on an opportunistic basis for stated beneficial uses.
- Develop a water management/conservation plan for the property.
- Quantify water delivery volumes and current water use
- Evaluate appropriations to beneficial uses and future water demand against property management plans and wildlife habitat conservation goals; develop water conservation/management plans and amend water rights filings as needed

Determine the location of use and volume of use for all streamside filings (36 and/or 39) including Agua Fria, Long Gulch, Indian Creek and Silver Creek and determine appropriate management plan on deeded land reaches (these decisions will have to align with allotment management decisions in Horseshoe-Copper Creek Coordinated Resource Management Plan and deeded property management plan). The beneficial uses will need to change if livestock are no longer allowed access to the stream to drink.

Amend all streamside filings (36 and/or 39's) for the Agua Fria River, Long Gulch, Indian Creek and Silver Creek to include wildlife as a beneficial use of the claims. Retain domestic use claims.

Evaluate how domestic uses are accommodated with surface water claims and exercise claim or amend filings.

Allotments

According to the research and interpretation we have described herein, all water rights and claims originating from federal lands with a point of use on the allotments should be used for stock watering and wildlife purposes. The designated uses are identical for all water rights and claims. (See Figure 1).

In order to protect legal standing for these claims the following actions must be taken:

- The Department has been advised by ADWR that the overall recommendation for all public land water rights and claims be placed in the name of the land management agency or the livestock permittee. The preferred recommendation is to work with the Assistant Attorney General and ADWR to reevaluate the unique situation under which the Ranch is managed and determine the eligibility of AGFD to retain water rights acquired and transferred to the Commission at the time of acquisition. In the event that ADWR does not change position, the recommendation for all public land water rights and claims is to work with ADWR and BLM to reassign them to the BLM rather than the Horseshoe Ranch base property lessee (allotment permittee/lessee); and to amend the water rights documents to include beneficial use for wildlife. This recommendation applies to all water rights originating from FS or BLM lands.

If AGFD is able to retain water rights acquired and transferred to the Commission at the time of acquisition the following recommendations apply:

- Seek a final determination on the legal and financial interests that may be held by the Department for Perry, New Mill and Bishop Wells from the Department's Assistant Attorney General and determine if there are any further filings that need to be completed with ADWR.
- In addition, the following recommendations merit consideration and would be advantageous for managing water resources and water rights claims:
 - Work with BLM to file appropriate claims for diversion and use of water associated with the current ranch livestock operations including an SOC (39) for the Perry Mesa Tank and Indian Mesa stock tanks (Boone and Horseshoe Stock Tank). All claims should be filed under the BLM for the beneficial use of stockwater **and** wildlife.
 - Retain the Agua Fria CWR-3946 (place of use is Pipe Tank #1 and #2) and utilize by pumping into contained storage and distributing from storage to various POUs within the same $\frac{1}{4}$ section. Work with BLM for additional points of use under a 33 application if additional POU are located outside of the $\frac{1}{4}$ section.
 - Reevaluate the designated uses and place of use for South Baby Tanks to determine if amendments to the CWR are advantageous. Retain the CWR and utilize by pumping into contained storage and distributing from storage to various POUs within the same $\frac{1}{4}$ section for stock watering; and/or convert a portion of the water right to an alternative beneficial use such as domestic. Work with BLM for additional points of use under a 33 application if additional POU are located outside of the $\frac{1}{4}$ section.
 - Locate well 55-623444 and verify if it is functional; document usability and

access for allotment management.

- No action will be taken to change the location on the 55-623443 filing. Field verification as to whether a well exists with ¼ section T10N, R3E, SWSW sec.14 will be done prior to filing abandonment with ADWR.

Common to Deeded Lands and Allotments

There are five claims (39's) for streamside watering use by livestock out of the respective rivers; the Agua Fria River, Long Gulch, Indian Creek, Silver Creek and Bishop Creek. All but one, Bishop Creek, include domestic uses and only one, Agua Fria River, includes wildlife as a beneficial use. The claims are for all sections of each river that traverses the deeded and allotments. The claims are partial assignments retained by Horseshoe Ranch after a 1988 land exchange with BLM, at which time a portion of the water rights were assigned to the BLM. The underlying basis for the claims is the historical (over 100 years) and continuous practice of livestock watering along the streams since 1875.

- Determine the appropriate management plan for streamside watering of livestock through the Coordinated Resource Management Plan process currently underway for the allotments; evaluate the location and volume of use related to the filings (36 and/or 39's) and determine if additional actions will need to be taken to ensure water rights filings meet ADWR administrative requirements for adjudication hearings. This would require a cooperative agreement with the BLM.
- The beneficial uses will need to change if livestock are no longer allowed access to the stream to drink.
- Amend all streamside filings (36 and/or 39's) for the Long Gulch, Indian Creek, Bishop Creek and Silver Creek to include wildlife as a beneficial use of the claims.
- Evaluate how domestic uses are accommodated with surface water claims and exercise claim or amend filings.

Region VI Actions

- Develop water management strategies that adhere to water rights filings and/or identify desired changes in use and amend filings where appropriate. For example, utilize the water rights fully at least once in five years on the irrigated acreage and document use.
- Maintain and enhance the stockpond for T&E species and other nongame species as a refugia.
- Identify and implement monitoring measures at key points sufficient to document water delivery volumes at various POU on deeded (stockpond, irrigation, livestock, domestic, fish & wildlife) over time to document beneficial use of water rights.

- Identify what livestock management strategies on deeded croplands and livestock holding corrals support cropland management goals and align with water rights requirements and amend filings as appropriate.
- Maintain and enhance croplands for nesting, foraging and cover for wildlife species.
- Identify livestock management strategies related to water on the allotments through the CRMP process, and align with water rights requirements and amend filings as appropriate.
- Adhere to the following concepts to ensure future improvement actions on Horseshoe Ranch stockpond meet the requirements of the existing water rights
- The stockpond must not be enlarged. It is only authorized to hold 2.4 acre feet of water for storage. Use on irrigated lands and stock water must continue in order to maintain the existing water rights. Need to amend the POD applications for wildlife use (39-21122 and 33-42303).
- Diversion structures and devices cannot be changed from their present location.
- Debris removed from the stockpond cannot be placed on top of existing dikes so as to enlarge the structure.
- If the structure remains basically unchanged but performance of the stockpond is improved, fish may be placed in the stockpond as an ancillary use for the stockpond while leaving the existing rights intact.

Land and Water Program Actions

- Long-term Management Implications, Recommendations or Information Needs
- Until such time as the property management plan and the Coordinated Resource Management Plan for the allotments have been fully developed we have a limited understanding of what the long-term management implications might be relating to the water rights portfolio. At this time there are a few recommendations or information needs that have been identified as follows:
- Recommend limited hydrological studies for Silver Creek and Long Gulch to understand surface and subsurface flow volumes seasonally. Coordinate with BLM.
- Evaluate use of water rights into the future to determine the following that would necessitate the application to ADWR:
 - o Change in place of use or point of diversion
 - o Re-evaluate every three years to potentially include wildlife and wildlife habitat enhancement
- Evaluate what our domestic requirements will be when we are regularly hosting workshops, kids' camps, etc. and whether we have the existing domestic claims to provide this.