BASS AND CHERRY SPRINGS CANYONS

LANDS WITH WILDERNESS CHARACTERISTICS

PUBLIC LANDS CONTIGUOUS TO THE BLM'S REDFIELD CANYON WILDERNESS, IN THE MULESHOE COOPERATIVE MANAGEMENT AREA, GALIURO MOUNTAINS, ARIZONA



A proposal report to the Bureau of Land Management, Safford Field Office, Arizona



ARIZONA WILDERNESS COALITION

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Cover Photo: From photo point S3, looking to the north at the peaks in the southern portion of the Cherry Spring Canyon portion of the Proposed LWC. Wildcat Peak is the prominent peak at center.

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PREFACE: This Proposal was developed according to BLM Manual 6310

General Overview

Instruction Memorandum 2011-154 and Manuals 6310 and 6320 set out the BLM's approach to protecting wilderness characteristics on the public lands. This guidance acknowledges that wilderness is a resource that is part of BLM's multiple use mission, requires the BLM to keep a current inventory of wilderness characteristics, and directs the agency to consider protection of these values in land use planning decisions.¹

In March 2012, the Bureau of Land Management issued updated manuals for inventorying and managing Lands with Wilderness Characteristics on public lands (hereafter often referred to as LWC's). These manuals provide the agency with direction for implementing its legal obligations to inventory and consider management of Lands with Wilderness Characteristics, including the Federal Land Policy and Management Act's provision that BLM "preserve and protect certain public lands in their natural condition" (43 U.S.C. § 1701(a)(8)). Manual 6310 (Conducting Wilderness Characteristics Inventory on BLM Lands) guides the BLM on how to meet its obligations to inventory for and identify lands with wilderness characteristics. Manual 6320 (Considering Lands with Wilderness Characteristics in the BLM Land Use Planning Process) guides the BLM on the options available to address lands with wilderness characteristics in land use planning once they have been identified in the required inventory, such as putting management prescriptions in place to protect wilderness characteristics. The purpose of this report is to provide the BLM with recommendations for designation of Lands with Wilderness Characteristics in the Safford Resource Area of southeastern Arizona, based on new, accurate, and upto-date information according to Manual 6310.²

What does Manual 6310 require for the identification of LWC's?

Minimum standards for LWC proposals are described in Manual 6310 in section .06.B.1. There are three things required in a citizens' wilderness proposal in order to meet the minimum standard for BLM to consider it in an inventory and to consider it as new information:

- Detailed map with specific boundaries;
- Detailed narrative of the wilderness characteristics; and
- Photographic documentation.

Once there is new information that meets these standards, then "as soon as practicable, the BLM shall evaluate the information," including field checking as needed and comparing with existing data to see if previous conclusions remain valid. Further, BLM will document its rationale and make it available to the public. (.06.B.2). This proposal report provides the three necessary criteria listed above.

 $http://www.blm.gov/wo/st/en/info/regulations/Instruction_Memos_and_Bulletins/national_instruction/2011/IM_2011-154.html$

http://www.blm.gov/pgdata/etc/medialib/blm/wo/Information_Resources_Management/policy/blm_manual.Par.38337.File.dat/6310.pdf

¹Memorandum 2011-154 is available online at:

² Manual 6310 is available online at :

What does Manual 6310 require for an area to be identified as an LWC?

Requirements for determining lands have wilderness characteristics are found in section .06.C.2 of Manual 6310. Lands with Wilderness Characteristics must possess the following traits:

• Size

<u>Sufficient roadless area to satisfy size requirements</u> (5,000 acres, of sufficient size to make management practicable or "any roadless island of the public lands"; or contiguous with Wilderness, Wilderness Study Areas, USFWS areas Proposed for Wilderness, Forest Service WSAs or areas of Recommended Wilderness, National Park Service areas Recommended or Proposed for Designation).

Naturalness

<u>Affected primarily by the forces of nature</u> – The criteria is "apparent naturalness" which depends on whether an area looks natural to "the average visitor who is not familiar with the biological composition of natural ecosystems versus human affected ecosystems." This is an important distinction between ecological integrity and apparent naturalness.

<u>Human impacts</u> – Human impacts must be documented and some are acceptable so long as they are "substantially unnoticeable"; Examples include trails, bridges, fire rings, minor radio repeater sites, air quality monitoring devices, fencing, spring developments, and stock ponds.

<u>Outside human impacts</u> – impacts outside the area are generally not considered, but major outside impacts should be noted and evaluated for direct effects on the entire area (the manual explicitly cautions BLM to "avoid an overly strict approach").

• Outstanding opportunities for either solitude or primitive and unconfined recreation

The area does not have to possess both opportunities for solitude and primitive and unconfined recreation, nor does the area need to have outstanding opportunities on every acre; BLM cannot compare lands in question with other parcels; BLM cannot use any type of rating system or scale.

Supplemental values

Ecological, geological, scientific, scenic, educational or historical features should be documented where they exist, although they are not required traits.

What does Manual 6310 require for the identification of the boundaries of an LWC?

Boundaries should be based on wilderness inventory roads and naturalness rather than opportunities for solitude or primitive and unconfined recreation. For inventorying wilderness characteristics, BLM will use the "road" definition from FLPMA's legislative history; the term "road" and "wilderness inventory road" are interchangeable in this guidance. The AWC survey team took a very literal, maintenance-driven approach to road/way determination.

- "Wilderness inventory roads" are routes which have been: (1) improved and maintained (when needed), (2) by mechanical means (but not solely by the passage of vehicles), (3) to insure relatively regular and continuous use.
- "Primitive routes" or "ways" are transportation linear features located within areas that have been identified as having wilderness characteristics and not meeting the wilderness inventory road definition.
- •Lands between individual human impacts should not be automatically excluded from the area; no setbacks or buffers allowed; boundaries should be drawn to exclude developed rights-of-way; "undeveloped rights-of-way and similar possessory interests (e.g., as mineral leases) are not treated as impacts to wilderness characteristics because these rights may never be developed"; areas can have wilderness characteristics even though every acre within the area may not meet all the criteria.

METHODS: The research approach to developing this citizens' proposal

The information presented in this report was developed systematically to ensure a comprehensive and accurate description of the proposed LWC that fulfills the citizens' proposal requirements of Manual 6310. Our intent has been to effectively combine the analytical power of technology with the equally important elements of qualitative observation, to produce a suite of products that can be used to facilitate the protection of a variety of lands with wilderness characteristics across the Safford Resource Area, meeting the conservation objectives of Arizona Wilderness Coalition *and* the legal obligation for the BLM to "preserve and protect certain public lands in their natural condition".

STEP 1: GIS ROADLESS ANALYSIS

The initial exercise in our inventory was to complete a geospatial analysis of the study area to identify potential roadless areas using a combination of Qgis, ESRI ArcGis, and Google Earth Pro. The BLM's Route Inventory dataset was gueried for keywords that indicated that a route may be maintained, such as "gravel-surfaced", "2WD use", "Recent grading", and numerous other terms. Several rounds of this process were verified over color aerial imagery to assess the quality of the output. During this step, some errors in the dataset were corrected, such as incomplete line features or very inaccurate digitization. Additionally, we performed a visual assessment of aerial imagery for roads that appeared obviously maintained, and added an attribute column to mark these features as such. We also acquired railroad data, US Census Lidar data for Primary & Secondary Roads, Interstate highway data, and county-maintained roads data from Cochise County. In addition, we digitized natural gas pipeline corridors, telephone and power lines, and the proposed route for the SunZia transmission line. Each feature type was buffered by distances ranging from 10 feet for dirt roads, to 50 feet for interstates and powerlines, and the results were dissolved and unioned to develop one master feature dataset that represented probable wilderness inventory roads and rights-of-way corridors. These data were then used to clip BLM's Surface Management dataset into contiguous blocks of BLM land. Areas less than 5,000 acres were then deleted (unless contiguous to wilderness, WSA, or Proposed Wilderness), and the resultant output was a dataset of 52 units of BLM lands that were probable roadless areas.

STEP 2: FIELD INVENTORY PRIORITIZATION

Prior to visiting any sites on the ground, we assessed each initial roadless area polygon to determine where our resources would be most effectively deployed. Our objectives were to maximize field inventory efforts on the areas that we estimated would possess the most outstanding wilderness values, while also covering a broad geographic sample of the study area. Our determinations were informed by EIS documents, past wilderness inventory reports by BLM and AWC, research by The Nature Conservancy and the Sky Island Alliance, and geospatial data we acquired from BLM, US Forest Service, academic institutions, and the Arizona Game and Fish Department, including the Heritage Database. It is important to make clear that the units we decided not to inventory probably possess wilderness characteristics, but given available resources, we could not visit every unit. In addition to the units we are proposing as LWC's, we are also providing recommendations for areas we have identified as "Potential LWC's". Those units should still be inventoried for wilderness characteristics.

STEP 3: FIELD PLANNING

Trips to the field were strategic, focused efforts. For each unit, we developed a list of field inventory points that we endeavored to visit either by foot or vehicle. By using the BLM Route Inventory Dataset, the BLM Range Improvements dataset, the USGS Springs dataset, the Arizona Land Resources Information System Mines dataset, and USGS Topographic Maps, we identified potential impacts to naturalness and areas of potential supplemental value. These datasets were exhaustively examined on Google Earth to validate feature locations. Additionally, other inventory features were identified on the aerial imagery. Once the field inventory points were identified, they were loaded into MotionX GPS HD for iPad. Also, we loaded high-resolution color aerial imagery for our target units and the surrounding area, to assist in navigation, identification of landscape features, and location of hard to detect features. Finally, standard logistical planning steps were completed to ensure that our team would enjoy safe and efficient days in the field.

STEP 4: FIELD INVENTORY

From January to March, 2016, our team dedicated more than 800 hours to inventorying lands with wilderness characteristics. Our objectives were: 1) to refine unit boundaries to confirmed wilderness inventory roads and impacts to naturalness; 2) to identify and document primitive routes, ways, and trails; 3) locate and document minor impacts to naturalness that are permitted within LWC's; 4) identify and document opportunities for solitude and primitive recreation; and 5) discover and document supplemental values where they exist. The primary tool for documentation was GeoJot+ for iPhone, a data collection app that allows the user to develop drop-down data tables that are attached to geotagged .jpeg digital photographs. In making determinations whether a route was a road versus a way, we returned to the legislative definition of a road (discussed earlier), closely assessed the history of maintenance, and considered the purpose (or lack thereof) of the route, the level of use, its connectivity, and other aspects. We are confident that upon verification, our determinations meet the intent of Manual 6310.

STEP 5: FINAL ASSESSMENT, MAPPING, AND DATA COMPILATION

After a field trip, data were loaded into GeoJot + Core for PC, where edits were made where necessary, and final determinations for unit boundaries were made. A range of products were developed from this application: 1) the photopoint data in Section 5 of this report, complete with tables and geotaggs; 2) .kml files for Google Earth to visualize the photopoints across the landscape; and 3) a .kml file of scenic panoramas of the units, showcasing the immense beauty and wildness of our final unit proposals. It is the intent of AWC to share these interactive products with BLM to facilitate in the review of our proposals and to support our best efforts to put forth fair proposals in full transparency. Finally, edits were made to unit polygons in GIS, supplemental information was further explored, maps were developed, and the components of this report were produced. Arizona Wilderness Coalition is proud to share with the BLM this citizens' proposal report and accompanying GIS data, the product of an intensive and science-based conservation process that furthers our collective goal to "preserve and protect certain public lands in their natural condition".

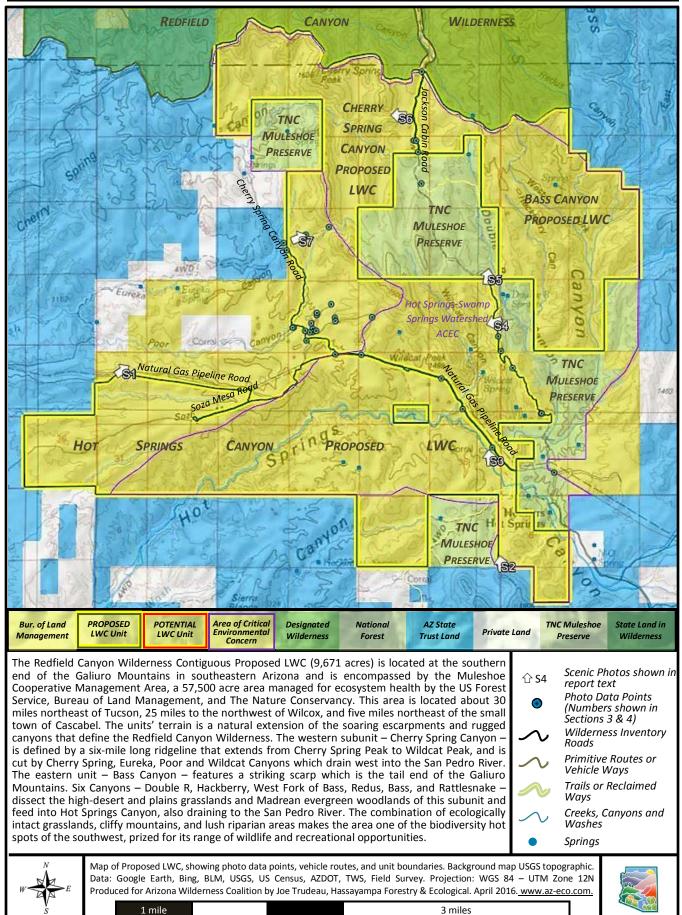
Section 1:

Overview of the Proposed Lands with Wilderness Characteristics

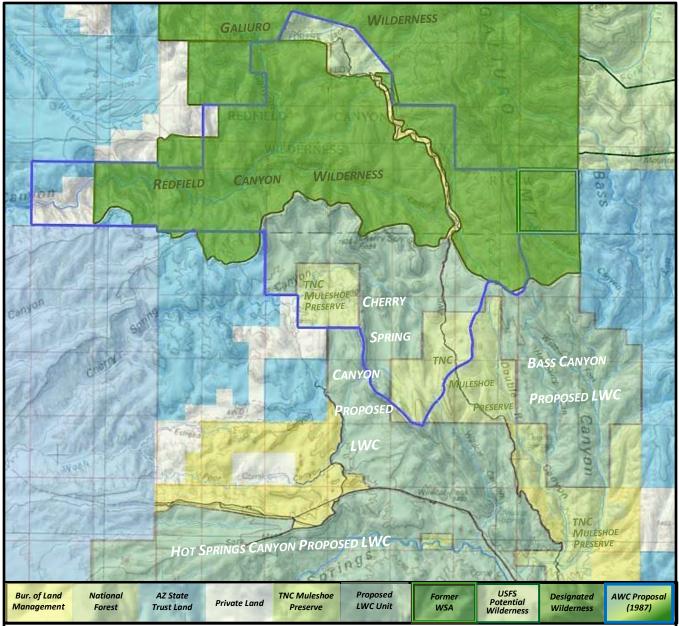
Looking across creosote bajadas to the rugged terrain of the Galiuro Mountains with the Redfield Canyon Wilderness in back and the contiguous Redfield Canyon Proposed LWC in the mid-ground, one is looking into the wild past of the Sky Islands region. This near-pristine, largely un-fragmented landscape, co-managed by the US Forest Service, the BLM, and The Nature Conservancy as the Muleshoe Cooperative Management Area (CMA) deserves protection of its prevailing wilderness characteristics.



Unit Introduction: Overview map showing unit location & labeled boundaries



Previous Wilderness Inventories: Map & discussion of former WSA's or inventory units



In 1982, The Nature Conservancy (TNC) purchased the private lands shaded light green on this map. In 1986 the BLM acquired State Trust lands through a land exchange and in 1988 the BLM, TNC, and the Coronado National Forest entered a cooperative agreement for management of the Muleshoe Cooperative Management Area (CMA). In 1987 Arizona Wilderness Coalition proposed a 13,500 acre area as the "Galiuro Additions" wilderness unit, shown in blue line above. The Redfield Canyon Wilderness was designated in 1990, with its southern boundary roughly following arbitrary ridgelines, and excluding some of the area previously proposed by AWC. As far as we have determined, most of the Redfield Canyon Wilderness Contiguous Proposed LWC has not been formally inventoried for wilderness characteristics, making this proposal report an important documentation of "new information" for the BLM. When the BLM completed its Intensive Inventory process in 1979, only one section-square of land was determined to have wilderness character, shown bordering the Galiuro Wilderness in green highlight above. We have identified two distinct units – Cherry Spring Canyon and Bass Canyon – that are natural extensions of the Redfield Canyon Wilderness. These units are in a natural condition and expand the outstanding wilderness characteristics that are well-known in the designated Wilderness. Additionally, we have identified the Hot Springs Canyon Proposed LWC, which is described in a separate proposal report. Management for preservation of wilderness characteristics in these units is consistent with the objectives of the Muleshoe CMA to preserve and enhance natural ecosystem function and biodiversity.



Data: Google Earth, Bing, BLM, USGS, US Census, AZDOT, TWS, Field Survey. Projection: WGS 84 – UTM Zone 12N Produced for Arizona Wilderness Coalition by Joe Trudeau, Hassayampa Forestry & Ecological. April 2016. www.az-eco.com.

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Section 2:

Documentation of Wilderness Characteristics



Looking into the headwaters of Cherry Spring Canyon with the Rincon Mountains in the far distance, over a mosaic of grassland and savanna that provides outstanding opportunities for hunting, bird-watching, backpacking, and nature study, in a remote, quiet area that is cooperatively managed for ecosystem health, primitive recreation, and restoration of natural processes. The Redfield Canyon Wilderness Contiguous Proposed LWC shares wilderness characteristics with more than 85,000 acres of designated Wilderness to the north. In the following pages we will provide a detailed documentation of wilderness characteristics within the proposed LWC.

Size Criteria

The Redfield Canyon Proposed LWC is divided into two units split by Jackson Cabin Road. Both units are contiguous with the ~7,282 acre Redfield Canyon Wilderness and they meet the minimum size criteria for roadless lands set forth in BLM Manual 6310. The eastern unit, Bass Canyon Proposed LWC, is ~3,599 contiguous BLM acres and shares about 2 ¾ miles of uninterrupted boundary with the Wilderness area. The western unit, Cherry Spring Canyon, is 6,072 contiguous BLM acres and shares about 4 miles of uninterrupted boundary with the Wilderness area. Together, the two units total ~9,671 acres, and when combined with the Redfield Canyon and Galiuro Wilderness areas, they form a contiguous block of ~95,000 acres. There are no State, private or other inholdings within the proposed LWC perimeter. The Bradberry/Cherry Springs and Pride Ranch parcels owned by The Nature Conservancy are partially surrounded by the proposed LWC units, but both have vehicle access by way of maintained wilderness inventory roads.

Naturalness

The Redfield Canyon Wilderness Contiguous Proposed LWC is dominated by the forces of nature. This LWC is situated in a remote region and is within the Muleshoe Cooperative Management Area which is managed for the protection and restoration of the native grasslands and riparian ecosystems. Essentially, the land within the proposed LWC is already being managed to promote naturalness.

Very few primitive routes enter the proposed LWC. In fact, the Bass Canyon subunit contains absolutely no vehicle ways, and is therefore in an exceedingly natural condition. The Cherry Spring Canyon subunit does contain some vehicle ways (under three miles total), but these largely receive very low use (points 1-3, 16, 17, 19 & 36), have naturally been reclaimed by nature (points 10-12), or are closed to vehicular use (point 29). Taken together, the ways in the LWC do not substantially detract from the naturalness of the area.

We have documented just one old mine within the proposed LWC. There are no mining disturbances in the Bass Canyon subunit. The only mining impact in the Cherry Spring Canyon subunit is abandoned and is substantially unnoticeable to the average visitor (point 15). The old route leading to this mine has grown in with vegetation and been reclaimed by nature. Additionally, this old mine is set in a hillside below the ridgeline, and is not visible from most vantage points. This old mining impact does not substantially affect the naturalness of this LWC, and it will only continue to naturalize and become less visible with time.

Very few ranching impacts exist within the Redfield Canyon Wilderness Contiguous Proposed LWC. What impacts do exist appear to be non-functional, abandoned, and absolutely dominated by the forces of nature, not man. Point 13 documents the condition of a dilapidated corral that is growing in with cacti. Point 18 displays the image of a revegetated earth-bermed tank that has naturalized. There are also two small rock and mortar dams (points 4 & 14) that may have been related to past ranching activities, but in any case, are now filled with sediment and are non-functional. Furthermore, these

www.azwild.org

dams have almost no impact to naturalness because they are not visible from a distance as they are tucked into drainages and have ample vegetative screening to mask their view. One in particular (point 14) is quite natural looking since it was constructed with native rock and blends into the surroundings. These are the extent of human impacts related to ranching in the Cherry Spring Canyon subunit. There is no ranching or grazing infrastructure in the Bass Canyon subunit. Overall, ranching infrastructure is substantially unnoticeable across the Redfield Canyon Wilderness Contiguous Proposed LWC.

Solitude & Recreation

The Redfield Canyon Wilderness Contiguous Proposed LWC provides outstanding opportunities for solitude and primitive and unconfined recreation. Some activities that the BLM has identified as primitive recreation in the Safford area include hunting, horseback riding, hiking, backpacking, camping, rock scrambling and climbing, sightseeing, photography, and environmental study (BLM, 1987). The proposed LWC offers all of these activities, plus more. The big empty landscape contained within this LWC and the contiguous Redfield Canyon Wilderness fits the definition of seclusion. It is hard not to be alone in this wild country. Whether on an isolated mountaintop or in a sheltered canyon among dense riparian vegetation, the outstanding solitude found in the Cherry Spring Canyon and Bass Canyon subunits is unparalleled, especially when considering the extensive designated Wilderness to which these units are an extension of.

The proposed LWC provides numerous outstanding options for primitive and unconfined recreation, especially when considered along with the contiguous Wilderness. Day hikers seeking off-trail adventure can hike up Wildcat Canyon and climb the exposed summit of Wildcat Peak gaining incredible views of the surrounding proposed LWC's and the Redfield Canyon Wilderness. Backpackers could add on a trek to Cherry Spring Canyon, up Cherry Spring Peak, down into Swamp Springs Canyon (in the Wilderness), head down canyon and into the Bass Canyon subunit and the West Fork of Bass Canyon, and finally down Bass Canyon to finish. There are many more canyons located within the LWC as well that are incredibly beautiful with their steep cliffs and interesting features. Some of these are especially outstanding in that portions of them flow perennially; a rare find in this arid region of Arizona. These creeks are a great destination for anyone looking to get wet in a wilderness environment. Exploring these canyons is an exceptional experience for anyone up to the challenge.

Abundant outstanding climbing opportunities can be found in the Redfield Canyon Wilderness Contiguous Proposed LWC. Climbers can summit Wildcat Peak or Cherry Spring Peak within the Cherry Spring Canyon subunit, or a number of other smaller mountains in this and the Bass Canyon subunit. Scenic photo 5 illustrates that even smaller topographical features offer outstanding climbing and incredibly scenic summits. With dozens of canyons in the Redfield Canyon LWC, canyoneers seeking secluded slot canyons have many extraordinary options to explore. Slot canyons provide risky adventures for those brave enough to navigate their steep, dangerous terrain.

The proposed LWC contains high-quality hunting opportunities. Species of economic and recreational importance that occur within the units include the band-tailed pigeon, bighorn sheep, black bear,

Gambel's quail, javelina, scaled quail, Mearn's quail, mountain lion, mule deer, pronghorn, white-tailed deer, and white winged dove (www.habimap.org). For hunters seeking a primitive experience in the backcountry, the complex rugged terrain of the Redfield Canyon LWC offer exactly that, particularly when considered as a whole with the Redfield Canyon Wilderness.

The rolling terrain of the lower elevations within the proposed LWC provides excellent opportunities for horseback riders. With abundant water and forage, horses and their riders can choose to leisurely explore the less rugged, mellower canyons. For the more adventurous horseback rider, a number of hills and small mountains offer exciting climbs with expansive views.

Opportunities for nature study and photography are completely outstanding in the proposed LWC. Threatened, endangered and sensitive native fish, birds, bats, frogs, and plants occur in these units and provide rare opportunities for observation and study. Uncommon riparian ecosystems are especially valuable for nature observation. Intact and uncommon native grasslands offer great habitat for wildlife watching as well. This tremendously scenic landscape lends itself for outstanding photography of unique natural features and species. Numerous cliff bands and exposed rock offer geologists and others much to study and contemplate. Whether looking for exceptional botanical, zoological, or geologic features, rich prospects for nature study can be found in the Redfield Canyon Wilderness Contiguous Proposed LWC units.



Looking up Double R Canyon into the Bass Canyon Proposed LWC. The incredibly scenic cliffs and buttes are located within the proposed LWC unit, and provide outstanding opportunities for challenging rock climbing or just exploring striking geologic formations. This LWC unit shares wilderness character with the stunning Redfield Canyon Wilderness in the distance (photo left in background).

Supplemental Values

The proposed LWC has supplemental values that enhance the wilderness experience & deserve protection. BLM Manual 6310 defines supplemental values as features of "ecological, geological, or other features of scientific, educational, scenic, or historical value" (section .06.C.2.d). Throughout this report, we have shown the scenic value of the area in photographs and through description. A review of the photopoints in Section 4 of this report will also provide evidence of the units' incredible scenery. Below, we provide a summary of additional supplemental values present in the proposed LWC.

The proposed LWC contains an **Area of Critical Environmental Concern**

Source: Safford District Resource Management Plan: Final EIS. Published in 1991 by the BLM, Safford Field Office, Arizona Find it at: http://www.blm.gov/az/st/en/info/nepa/environmental_library/arizona_resource_management.html

Approximately 4,800 acres of the proposed LWC are within the Swamp Springs-Hot Springs Watershed ACEC, a 16,763 acre area recognized for its riparian areas, native fish, threatened & endangered species, bighorn sheep, and cultural resources. These resources would benefit from the protection of wilderness characteristics.

The proposed LWC provides habitat for multiple sensitive species, including riparian ecosystems

Source: Arizona Game and Fish Department Heritage Data Management System (HDMS) Online Environmental Review Tool Find it at: https://azhgis2.esri.com/

Source: "Habitat mapping and conservation analysis to identify critical streams for Arizona's native fish", by Dale S. Turner and Michael List. Published in 2007 in *Aquatic Conservation: Marine and Freshwater Ecosystems, Vol. 17: pages 737-748*. Find it at: http://azconservation.org/downloads/critical_streams_for_arizonas_native_fish

Source: "Desert tortoise habitat management on the public lands: a rangewide plan", by Edward F. Sprang, G. William Lamb, Frank Rowley, William H. Radtkey, Richard R. Olendorff, Eugene A. Dahlem and Sidney Stone. Published in 1988 by the Bureau of Land Management Division of Wildlife and Fisheries, Washington, DC. Find it at: https://ia902703.us.archive.org/25/items/deserttortoiseha7775span/deserttortoiseha7775span.pdf

The streams and riparian ecosystems which run through the Muleshoe Cooperative Management Area have been identified as critical to the conservation of native fish in Arizona (Turner & List, 2007). The riparian ecosystem in Bass Canyon and Double-R Canyon, which join Hot Springs Creek and flow through our proposed Hot Springs Canyon LWC, support 7 native fish species, including the federally endangered desert pupfish, Gila chub, and spikedace, as well as the speckled dace, Gila longfin dace, and Sonora and desert suckers, all federal species of concern. These streams and their attendant vegetative communities also support the threatened Chiricahua leopard frog, Mexican spotted owl, and yellow-billed cuckoo, as well as the lowland leopard frog, a species of concern. Uplands support a variety of sensitive species as well, such as many species of bat, including the endangered lesser longnosed bat, a variety of hawks, and the globally rare Aravaipa sage. The Muleshoe area is actually the furthest east habitat for the desert tortoise, although it is not considered essential to their survival (Sprang et al., 1988). The mosaic of lush riparian forest, native grasslands, and rugged topography provide exceptional bird habitat, and the proposed LWC is considered some of the best bird-watching in Arizona. The State HDMS provides reports to the public for known occurrences of plant and animal species of concern per USGS topographic quadrangles. The proposed LWC falls on The Mesa's, Cherry

Spring Peak, Soza Mesa and Hooker's Hot Springs quadrangles. A table listing the species found within the four quadrangle area is provided in Appendix 1. The protection of the proposed LWC would benefit these species directly or indirectly, whether they occur on the proposed LWC or in the immediate surroundings.

The proposed LWC contains critical habitat for protected wildlife species

Source: Arizona Game and Fish Department Heritage Data Management System Online Environmental Review Tool Find it at: https://azhgis2.esri.com/

The online Environmental Review Tool provides detailed maps for designated and proposed critical habitat areas. The proposed LWC contains designated Critical Habitat in Bass Canyon for three native fish: Gila Chub (*Gila intermedia*) and Spikedace (*Meda fulgida*), which are known to occur in the proposed LWC; and Loach Minnow (*Tiaroga cobitis*), which could occur in the proposed LWC.

The proposed LWC contains grasslands of ecoregional importance

Source: "An assessment of the spatial extent and condition of grasslands in central and southern Arizona, southwestern New Mexico, and northern Mexico" by David F. Gori and Carolyn A.F. Enquist. Published in 2003 by The Nature Conservancy, Arizona Chapter.

Find it at: http://azconservation.org/downloads/category/grassland_assessment

This study assessed and characterized native grasslands, historical vegetation changes, and prospects for grassland restoration – primarily using fire – for the Apache Highlands Ecoregion in Arizona, New Mexico, and northern Mexico. They found that native grasslands with a low (<10%) shrub cover represent only 15.4% of all current and former grasslands in the study area. The BLM manages 17.5% of all current and former grasslands in the Unites States portion of the ecoregion, where only 1.2% of the highest quality grasslands are protected from land cover conversion. All of the upland ecosystems within the proposed LWC are characterized as native grasslands with a high potential for restoration (Condition Class B, 10-35% shrub cover). Protection of wilderness characteristics would contribute to the conservation of this important and diminishing ecological and cultural resource without adversely affecting fire management operations.

The proposed LWC falls within a **priority Conservation Area** as determined by The Nature Conservancy

Source: "An ecological analysis of conservation priorities in the Apache Highlands Ecoregion" by R.M. Marshall, D. Turner, A. Gondor, D. Gori, C. Enquist, G. Luna, R. Paredes Aguilar, S. Andersen, S. Schwartz, C. Watts, E. Lopez, and P. Comer. Published in 2004 by the The Nature Conservancy of Arizona, Instituo del Medio Ambiente y el Desarrollo Sustentable del estado de Sonora, agency and institutional partners.

Find it at: http://azconservation.org/projects/ecoregions

This study identified conservation focus areas for the Apache Highlands Ecoregion, which includes 30 million acres of central and southeastern Arizona, southwestern New Mexico, and north-central Mexico; bounded to the north by the Mogollon Rim, the west by the Mohave and Sonoran Deserts, the east by the Chihuahuan Desert, and to the south by the Sierra Madre Occidental. This was a collaborative, multi-disciplinary process which analyzed at-risk species and habitats, threats to ecosystem health, and effective solutions to maintain biodiversity and ecosystem resiliency. TNC completed the ecoregional assessment using advanced GIS and statistical computing tools to identify a

network of conservation areas, across land ownership, where the most imperiled, keystone, or endemic ecosystems, species, and habitats could be protected with the least effort. The proposed LWC is within the Winchester Mountains Conservation Area, which encompasses 502,849 acres, and is the optimum area for the conservation of Apachean grasslands, numerous raptors, native fish, pronghorn, black bear, several bats, and others. The protection of wilderness characteristics in the proposed LWC would contribute to the broader objectives of protecting the full range of native wildlife and ecosystems in the Apache Highlands Ecoregion. The table showing the target criteria from this analysis is provided in Appendix 2.

The proposed LWC is an important **area of connectivity for wildlife movement**

Source: "Pima County Wildlife Connectivity Assessment: Detailed Linkages: Santa Catalina/Rincon - Galiuro Linkage Design. Published in 2012 by the Arizona Game and Fish Department and the Regional Transportation Authority of Pima County. Find it at:http://www.azgfd.gov/w_c/conn_Pima.shtml

In this study, 18 focal wildlife species habitat needs were modeled and mapped based off of input from an interdisciplinary team of wildlife experts. The purpose was to identify the areas that are most important for maintaining habitat connectivity across the Middle San Pedro River Valley, linking the Santa Catalina/Rincon protected areas to the Galiuro protected areas. The entire proposed LWC falls within the area determined to be important for maintaining biodiversity across this expansive landscape, and protection of wilderness characteristics is an effective way to accomplish the objectives of this forward-thinking analysis. Species that utilize this important corridor include badger, black bear, white tailed deer, desert bighorn sheep, desert box turtle, kit fox, and mountain lion. Additionally, the proposed LWC was determined to be part of the biologically best corridor for jaguar movement.



This view from Jackson Cabin road looks to the southwest over Wildcat Canyon toward Wildcat Peak, in the heart of the Cherry Spring Canyon subunit of the proposed LWC. The grasslands shown here are typical of the exceptional condition of the native grassland ecosystem that is being restored cooperatively with the use of prescribed fire. Many former grasslands in southern Arizona have been invaded by mesquite, creosote bush, cacti, and catclaw acacia, all native, yet somewhat invasive, species that cannot tolerate fire.

Conclusion

The Arizona Wilderness Coalition recommends to the Bureau of Land Management that the proposed area should be managed for protection of wilderness characteristics according to the policies established in BLM Manuals 6310 and 6320. In this report, we have provided the requirements for a citizens' proposal, and documented that the proposed unit meets the criteria for size, naturalness, solitude, and primitive recreation. Furthermore, we have provided a summary of supplemental values that support the protection of the area for the purposes of conserving biodiversity, protecting and restoring watershed health, and for preserving the vibrant fabric of life that is cherished by the residents of Arizona and is the scenic backdrop to our lives.

The Redfield Canyon Wilderness Contiguous Proposed LWC is in a remarkably natural condition and is a very scenic piece of land. The Bass Canyon subunit contains virtually no human disturbance; a rare occurrence in a region so heavily impacted by mining and livestock grazing. The few impacts found in the Cherry Spring Canyon subunit are minor and are not substantially noticeable to the average visitor. The units are a natural extension of the designated Wilderness, and as such they inherit the outstanding opportunities for finding solitude or experiencing primitive and unconfined recreation. The Galiuro Mountains are one of Arizona's favorite backpacking destinations, and the options for long, wild hikes and horse-packs are enhanced by the contiguity of the Galiuro Wilderness, the Redfield Canyon Wilderness, and the Cherry Spring and Bass Canyon units of the proposed LWC.

These units are incredibly important in the conservation of sensitive wildlife species. The drainages which originate or pass through the units contribute to the exceptional biodiversity values in Bass and Hot Springs Canyons, and ultimately contribute to the middle San Pedro River Ecosystem, one of the most biologically important ecosystems in Arizona, and recognized by the Audubon Society as a globally important area for birds. The land use in this portion of BLM ownership has direct and indirect effects on the well-being of many threatened, endangered, and sensitive fish, birds, reptiles, amphibians, mammals, plants, and other species both within the Muleshoe CMA and the greater San Pedro Ecosystem.

Managing for wilderness characteristics is consistent with the conservation objectives of the agencies and organizations with a stake in the Muleshoe CMA, and would support the broader goals of protecting and restoring stable, resilient ecosystem structure, function and composition in the southern Galiuro Mountains. Primitive recreational activities are enhanced by the health and scenic qualities of properly functioning ecosystems, and in turn those activities can educate people to the outstanding importance of these places in their natural, wild state.

Appendix 1: Arizona Heritage Data Management System Report for the Redfield Canyon Wilderness Contiquous Proposed LWC

Quad Name	Scientific Name	Common Name	USESA	USFS	BLM	GRANK	SRANK	SGCN	NPL
THE MESAS	Aquila chrysaetos	Golden Eagle			S	G5	S4	1B	
THE MESAS	Aspidoscelis stictogramma	Giant Spotted Whiptail	SC	S		G4	S2	1B	
THE MESAS	Falco peregrinus anatum	American Peregrine Falcon	SC	S	S	G4T4	S4	1A	
THE MESAS	Leptonycteris curasoae yerbabuenae	Lesser Long-nosed Bat	LE			G4	S2S3	1A	
THE MESAS	Lithobates chiricahuensis	Chiricahua Leopard Frog	LT			G2G3	S2	1A	
CHERRY SPRING PEAK	Agosia chrysogaster chrysogaster	Gila Longfin Dace	SC		S	G4T3T4	S3S4	1B	
CHERRY SPRING PEAK	Aquila chrysaetos	Golden Eagle			S	G5	S4	1B	
CHERRY SPRING PEAK	Aspidoscelis stictogramma	Giant Spotted Whiptail	SC	S		G4	S2	1B	
CHERRY SPRING PEAK	Bat Colony					GNR	SU		
CHERRY SPRING PEAK	Buteo albonotatus	Zone-tailed Hawk				G4	S4		
CHERRY SPRING PEAK	Buteogallus anthracinus	Common Black Hawk				G4G5	S3	1C	
CHERRY SPRING PEAK	Camptostoma imberbe	Northern Beardless-Tyrannulet		S		G5	S4	1B	
CHERRY SPRING PEAK	Carex ultra	Arizona Giant Sedge		S	S	G3?	S2		
CHERRY SPRING PEAK	Catostomus clarkii	Desert Sucker	SC	S	S	G3G4	S3S4	1B	
CHERRY SPRING PEAK	Catostomus insignis	Sonora Sucker	SC	S	S	G3G4	S 3	1B	
CHERRY SPRING PEAK	Cyprinodon macularius	Desert Pupfish	LE			G1	S1	1A	
CHERRY SPRING PEAK	Falco peregrinus anatum	American Peregrine Falcon	SC	S	S	G4T4	S4	1A	
CHERRY SPRING PEAK	Gila intermedia	Gila Chub	LE			G2	S2	1A	
CHERRY SPRING PEAK	Gopherus morafkai	Sonoran Desert Tortoise	CCA	S		G4	S4	1A	
CHERRY SPRING PEAK	Heuchera glomerulata	Chiricahua Mountain Alumroot		S		G3	S 3		
CHERRY SPRING PEAK	Leptonycteris curasoae yerbabuenae	Lesser Long-nosed Bat	LE			G4	S2S3	1A	
CHERRY SPRING PEAK	Lithobates chiricahuensis	Chiricahua Leopard Frog	LT			G2G3	S2	1A	
CHERRY SPRING PEAK	Lithobates yavapaiensis	Lowland Leopard Frog	SC	S	S	G4	S3	1A	
CHERRY SPRING PEAK	Meda fulgida	Spikedace	LE			G2	S1	1A	
CHERRY SPRING PEAK	Penstemon discolor	Catalina Beardtongue		S		G2	S2		HS
CHERRY SPRING PEAK	Rhinichthys osculus	Speckled Dace	SC		S	G5	S3S4	1B	
CHERRY SPRING PEAK	Salvia amissa	Aravaipa Sage	SC	S	S	G2	S2		
CHERRY SPRING PEAK	Scutellaria potosina var. grahamiana	Mexican Skullcap				G3G5T1	S1		
CHERRY SPRING PEAK	Streptanthus carinatus	Lyre-leaved Twistflower				G4	S3S4		
CHERRY SPRING PEAK	Tillandsia recurvata	Ball Moss				G5	S2		
HOOKERS HOT SPRINGS	Agosia chrysogaster chrysogaster	Gila Longfin Dace	SC		S	G4T3T4	S3S4	1B	
HOOKERS HOT SPRINGS	Aspidoscelis stictogramma	Giant Spotted Whiptail	SC	S		G4	S2	1B	
HOOKERS HOT SPRINGS	Bat Colony					GNR	SU		
HOOKERS HOT SPRINGS	Buteo albonotatus	Zone-tailed Hawk				G4	S4		
HOOKERS HOT SPRINGS	Buteo plagiatus	Gray Hawk	SC			GNR	S 3		
HOOKERS HOT SPRINGS	Buteo swainsoni	Swainson's Hawk				G5	S 3	1C	
HOOKERS HOT SPRINGS	Buteogallus anthracinus	Common Black Hawk				G4G5	S 3	1C	
HOOKERS HOT SPRINGS	Camptostoma imberbe	Northern Beardless-Tyrannulet		S		G5	S4	1B	
HOOKERS HOT SPRINGS	Carex ultra	Arizona Giant Sedge		S	S	G3?	S2		

Appendix 1: Arizona Heritage Data Management System Report for the Redfield Canyon Wilderness Contiguous Proposed LWC (continued)

Quad Name	Scientific Name	Common Name	USESA	USFS	BLM	GRANK	SRANK	SGCN	NPI
HOOKERS HOT SPRINGS	Catostomus clarkii	Desert Sucker	SC	S	S	G3G4	S3S4	1B	
HOOKERS HOT SPRINGS	Catostomus insignis	Sonora Sucker	SC	S	S	G3G4	S 3	1B	
HOOKERS HOT SPRINGS	Choeronycteris mexicana	Mexican Long-tongued Bat	SC	S	S	G4	S3	1C	
HOOKERS HOT SPRINGS	Coccyzus americanus	Yellow-billed Cuckoo (Western DPS)	LT	S		G5	S3	1A	
HOOKERS HOT SPRINGS	Cyprinodon macularius	Desert Pupfish	LE			G1	S1	1A	
HOOKERS HOT SPRINGS	Gila intermedia	Gila Chub	LE			G2	S2	1A	
HOOKERS HOT SPRINGS	Gopherus morafkai	Sonoran Desert Tortoise	CCA	S		G4	S4	1A	
HOOKERS HOT SPRINGS	Heloderma suspectum suspectum	Reticulate Gila Monster				G4T4	S4	1A	
HOOKERS HOT SPRINGS	Lampropeltis getula nigrita	Western Black Kingsnake				G5T3T4Q	S 3	1B	
HOOKERS HOT SPRINGS	Lasiurus cinereus	Hoary Bat				G5	S4		
HOOKERS HOT SPRINGS	Lasiurus xanthinus	Western Yellow Bat		S		G5	S2S3	1B	
HOOKERS HOT SPRINGS	Leptonycteris curasoae yerbabuenae	Lesser Long-nosed Bat	LE			G4	S2S3	1A	
HOOKERS HOT SPRINGS	Lithobates yavapaiensis	Lowland Leopard Frog	SC	S	S	G4	S 3	1A	
HOOKERS HOT SPRINGS	Lobelia laxiflora	Mexican Lobelia				G4	S1		SR
HOOKERS HOT SPRINGS	Peucaea carpalis	Rufous-winged Sparrow				G4	S 3	1B	
HOOKERS HOT SPRINGS	Phemeranthus parviflorus	Small-flowered Flameflower				G5	S 3		
HOOKERS HOT SPRINGS	Rhinichthys osculus	Speckled Dace	SC		S	G5	S3S4	1B	
HOOKERS HOT SPRINGS	Salvia amissa	Aravaipa Sage	SC	S	S	G2	S2		
HOOKERS HOT SPRINGS	Sigmodon ochrognathus	Yellow-nosed Cotton Rat	SC			G4G5	S4	1C	
HOOKERS HOT SPRINGS	Strix occidentalis lucida	Mexican Spotted Owl	LT			G3T3	S3S4	1A	
HOOKERS HOT SPRINGS	Terrapene ornata luteola	Desert Box Turtle			S	G5T4	S2S3	1A	
SOZA MESA	Agosia chrysogaster chrysogaster	Gila Longfin Dace	SC		S	G4T3T4	S3S4	1B	
SOZA MESA	Aspidoscelis stictogramma	Giant Spotted Whiptail	SC	S		G4	S2	1B	
SOZA MESA	Buteo albonotatus	Zone-tailed Hawk				G4	S4		
SOZA MESA	Buteogallus anthracinus	Common Black Hawk				G4G5	S 3	1C	
SOZA MESA	Camptostoma imberbe	Northern Beardless-Tyrannulet		S		G5	S4	1B	
SOZA MESA	Carex ultra	Arizona Giant Sedge		S	S	G3?	S2		
SOZA MESA	Catostomus clarkii	Desert Sucker	SC	S	S	G3G4	S3S4	1B	
SOZA MESA	Catostomus insignis	Sonora Sucker	SC	S	S	G3G4	S3	1B	
SOZA MESA	Echinomastus erectocentrus var. erectocentrus	Needle-spined Pineapple Cactus	SC			G3T3Q	S3		SR
SOZA MESA	Eriogonum capillare	San Carlos Wild-buckwheat	SC			G4	S4		SR
SOZA MESA	Gila intermedia	Gila Chub	LE			G2	S2	1A	
SOZA MESA	Gopherus morafkai	Sonoran Desert Tortoise	CCA	S		G4	S4	1A	
SOZA MESA	Leptonycteris curasoae yerbabuenae	Lesser Long-nosed Bat	LE			G4	S2S3	1A	
SOZA MESA	Lithobates yavapaiensis	Lowland Leopard Frog	SC	S	S	G4	S 3	1A	
SOZA MESA	Meda fulgida	Spikedace	LE			G2	S1	1A	
SOZA MESA	Rhinichthys osculus	Speckled Dace	SC		S	G5	S3S4	1B	
SOZA MESA	Salvia amissa	Aravaipa Sage	SC	S	S	G2	S2		

Appendix 2: Conservation targets table for the Winchester Mountains Conservation area, from Marshall et al., 2004: pages 127-128.

	n Area 53 Winchester Mountai	•	n Targets	5.3
Site size (hect	tares): 203,500 (acres): 50	02,849		
Taxonomio	Solentifio Name	Common Name	Global	
3roup			Rank	Statu
Ecological Sy	stem	Apachean Grassland and Savanna Condition Class A	GU	
		Apachean Grassland and Savanna Condition Class B	GU	
		Apachean Grassland and Savanna Condition Class C Apachean Grassland and Savanna Condition Class D	GU	
		Apachean Shrubland	GU	
		Chihuahuan Desert Scrub	GU	
		Desert Riparian Woodland and Shrubland	GU	
		Desert Wash	GU	
		Interior Chaparral	GU	
		Madrean Encinal	GU	
		Madrean Oak-Pine Woodland	GU	
		Montane Mixed-Conifer Forest	GU	
		Montane Riparian Woodland and Shrubland	GU	
		Playa	GU	
		Sonoran Paloverde-Mixed Cacti Desert Scrub	GU	
Amphibian	Rana blairi	Plains leopard frog	G5	
	Rana chiricahuensis	Chiricahua leopard frog	G3	LT
	Rana yavapalensis	Lowland leopard frog	G4	
Bird	Accipiter gentilis	Northern goshawk	G5	
	Almophila carpalis	Rufous-winged sparrow	G4	
	Asturina nitida maxima	Northern gray hawk	G3	
	Athene cunicularia hypugaea	Western burrowing owl	G4	
	Buteo albonotatus	Zone-tailed hawk	G4 G4	
	Buteogailus anthracinus	Common black-hawk	G5	
	Calilpepia squamata Coccyzus americanus occidentalis	Scaled quali Western yellow-billed cuckoo	G3	С
	Faico peregrinus anatum	American peregrine falcon	G3	
	Grus canadensis	Sandhill crane	G5	
	Strix occidentalis lucida	Mexican spotted owl	G3	LT
Fish	Agosla chrysogaster	Longfin dace	G4	-
	Catostomus clarki	Desert sucker	G3	
	Catostomus Insignis	Sonora sucker	G3	
	Glia Intermedia	Glia chub	G2	C
	Rhinichthys osculus	Speckled dace	G5	
	Tiaroga cobitis	Loach minnow	G2	LT
nsect	Abedus herberti	Glant water bug	GU	
//ammai	Antilocapra americana	Pronghom	G5	
	Eumops perotis californicus	Greater western mastiff bat	G4	
	Leptonycteris curasoae	Lesser long-nosed bat	G3 G5	LE
	Myotis velifer Sciurus arizonensis	Cave myotis Arizona tree squirrei	G4	
	Slamodon ochroanathus	Yellow-nosed cotton rat	G4	
	Ursus americanus	Black bear	G5	
Reptile	Cnemidophorus burti	Glant spotted whiotall	G3	
cepuic	Phrynosoma comutum	Texas horned lizard	G4	
/ascular plant	t Atriplex griffithsii	Griffith saltbush	G2	
	Carex ultra	Arizona giant sedge	G3	
	Echinomastus erectocentrus var	Needle-spined pineapple cactus	G3	
	erectocentrus			
	Hedeoma dentatum	Mock pennyroyal	G3	
	Lupinus lemmonii	Lemmon's lupine	G1	
	Penstemon discolor	Catalina beardtongue	G2	
	Salvia amissa	Aravaipa sage	G2	
	Samolus vagans	Chiricahua mountain brookweed	G2	

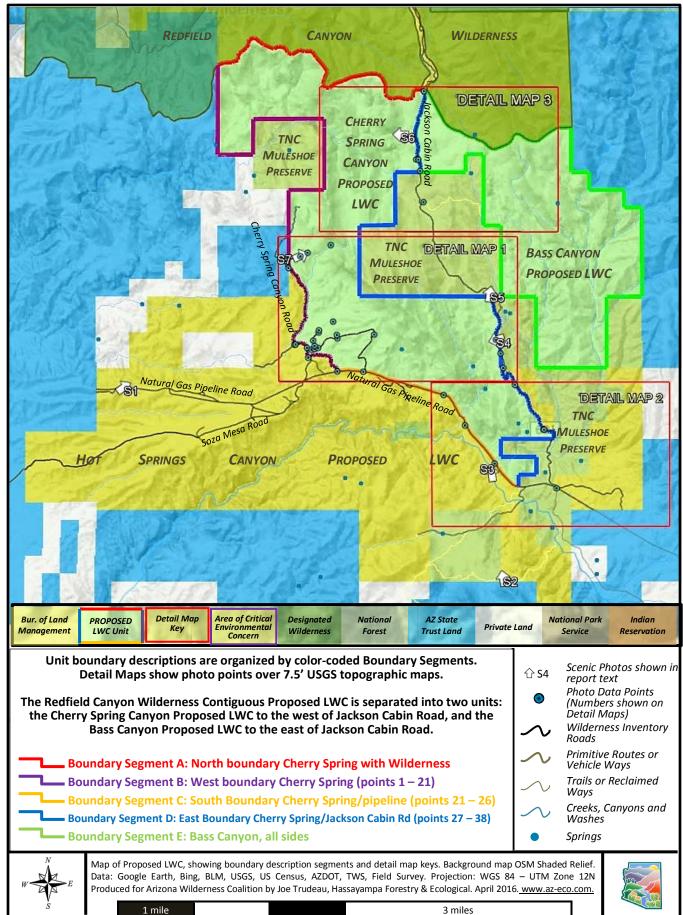
Section 3:

Detailed Maps & Description of the Unit Boundary, Roads, Ways and Human Impacts

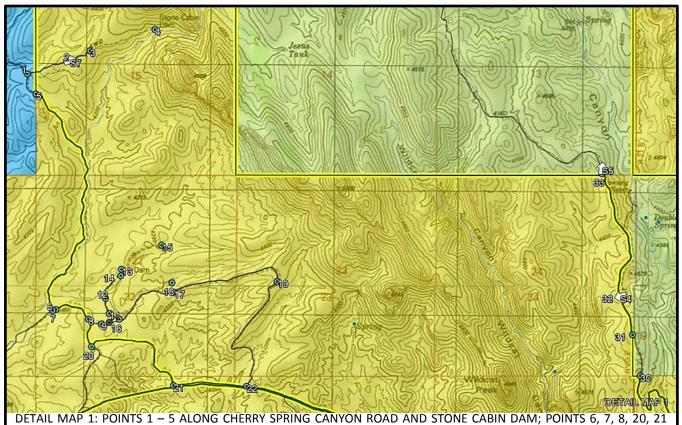
This photo shows the way that climbs to the old Stone Cabin Dam that sits in a notch in the otherwise impassable escarpment that runs through the entire Cherry Springs unit. This way, shown in points 1-4, is an unmaintained route that has little impact on the naturalness of the area. This photo shows that the route is off-camber, vegetated and shows no signs of grading or other maintenance. Other ways within the unit are similarly primitive.



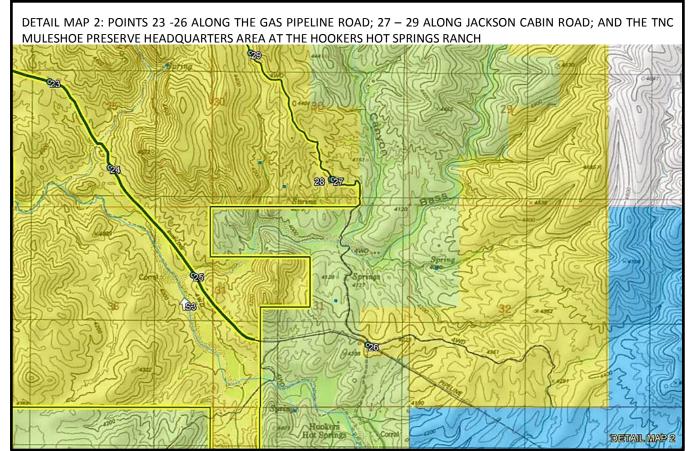
Overview Map with Boundary Segments & Detail Map Keys



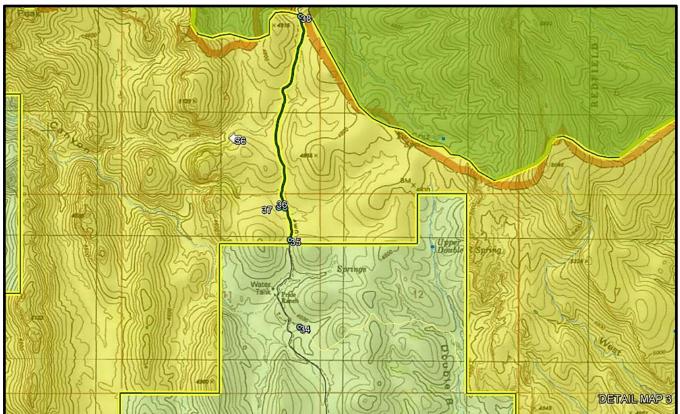
Detail Maps with Photopoint Locations: (Refer to Overview Map Legend for Symbology; Scale varies)



DETAIL MAP 1: POINTS 1 – 5 ALONG CHERRY SPRING CANYON ROAD AND STONE CABIN DAM; POINTS 6, 7, 8, 20, 21 ALONG THE SOUTHWESTERN UNIT BOUNDARY ROADS; AND POINTS 9 – 19 ALONG VEHICLE WAYS. THE RUGGED COUNTRY AROUND WILDCAT PEAK AND CANYON IS SHOWN. SEE PHOTO S1 FOR A VIEW OF THIS ESCARPMENT.



Detail Maps with Photopoint Locations: (Refer to Overview Map Legend for Symbology; Scale varies)



DETAIL MAP 3: JACKSON CABIN ROAD SPLITS THE PROPOSED LWC INTO ITS TWO SUBUNITS. THIS MAP SHOWS POINTS 35 – 38 ALONG JACKSON CABIN ROAD; POINT 34 AT A TRAIL ON THE TNC MULESHOE PRESERVE; SCENIC PHOTO S6 AT THE HEAD OF CHERRY SPRING CANYON; AND THE TUFF ESCARPMENT THAT FORMS THE EASTERN EDGE OF THE WEST FORK OF BASS CANYON ARE SHOWN ON THIS MAP.

THIS VIEW LOOKS OVER THE HOT SPRINGS CANYON PROPOSED LWC, ENCOMPASSING THE CHERRY SPRING CANYON PROPOSED LWC SUBUNIT, THE BASS CANYON PROPOSED LWC SUBUNIT, AND THE REDFIELD CANYON WILDERNESS. A PHOTOGRAPH CAN BE WORTH A THOUSAND WORDS, AND UNDENIABLY, THIS PHOTO DEMONSTRATES THE OVERALL LACK OF HUMAN DISTURBANCE, AND THE OUTSTANDING WILDERNESS CHARACTER OF THE PROPOSED LWCS AND THE CONTIGUOUS WILDERNESS.



Narrative Description of the Proposed LWC Boundary & Vehicle Routes

Cherry Spring Canyon subunit

Segment A: Northern Boundary

SEE UNIT OVERVIEW MAP

General Description: The entire northern boundary of the Cherry Spring Canyon subunit is the wilderness boundary with the Redfield Canyon Wilderness. No ways enter the proposed LWC unit through the northern boundary. There are no human impacts along this boundary.

Segment B: Western Boundary

SEE UNIT OVERVIEW MAP & DETAIL MAP 1

General Description: Between points 5 and 21, the unit boundary follows wilderness inventory roads (shown at points 5, 6, 8, 20 and 21). To the north of point 5, the unit boundary follows the BLM property line with State Trust, private, and TNC lands.

Ways: Two vehicle ways enter the unit from the western boundary.

-Point 1 (taken outside of proposed LWC unit) displays an image of a way that enters the Cherry Spring Canyon subunit. This route was probably established when Stone Cabin Dam was built in upper Poor Canyon (see point 4). As points 2 and 3 document, this way is revegetating, gets very low vehicular use, and shows no evidence of maintenance. The route no longer reaches as far as the rock dam. To the north of this route, the BLM Route Inventory dataset shows a digitized route in upper Eureka Canyon. This is not a route; it is just a natural wash.

-Points 9, 17, 19 and 22 document an unmaintained way that makes a loop into the unit. The unmaintained route does not have an apparent purpose. Points 10, 11, 12 and 16 display images of a route branching off of this way that leads to a corral, a small stone dam, and an abandoned mine. This route, which sees virtually no vehicular use, has been reclaimed by nature. Point 13 documents the dilapidated corral at the end of this reclaimed way, and the old dam near the end of the old way can be seen in point 14.

Associated Human Impacts:

-Point 4 shows the Stone Cabin Dam tucked in the bottom of a canyon. This dam is not incongruous with wilderness and is substantially unnoticeable from most vantages because it is well-hidden in the bottom of the canyon.

-Point 7 was taken looking at a campsite along the boundary road.

-Point 15 displays a photograph of an old abandoned mine. This mine is substantially unnoticeable to the average visitor because it is a vertical shaft and largely hidden from view.

-Point 18 was taken looking at an old earth-bermed tank that has revegetated.

Segment C: Southern Boundary

SEE UNIT OVERVIEW MAP & DETAIL MAPS 1 & 2

General Description: The entire southern boundary follows the natural gas pipeline, seen in points 23 and 24. Point 24 and 26 document that this road is closed to vehicular use between these two points.

Ways: One vehicle way crosses the southern unit boundary, shown at point 22 and described above.

Associated Human Impacts: There are no major human impacts within the LWC along the southern unit boundary. At point 25 the Bass Canyon Trail heads east into the proposed LWC unit, but the trail soon simply follows the creek and is frequently washed out by flooding.

Segment D: Eastern Boundary

SEE DETAIL MAPS 1 – 3

General Description: The eastern unit boundary follows the BLM property line with TNC lands, as well as Jackson Cabin Road. This road crosses BLM and TNC lands and ultimately dead ends as a cherrystem that divides the Redfield Canyon Wilderness and penetrates the southern edge of the US Forest Service's Galiuro Wilderness. Point 27 shows the route shortly after leaving TNC lands near the Muleshoe visitor center. Between point 30 and 31, the road again crosses onto TNC lands, and for this section the LWC unit boundary follows the property line between BLM and TNC. At point 31 the road crosses onto BLM again, until point 33, which shows the road as it crosses onto TNC land again. The final stretch of this boundary road crosses back onto BLM land at point 35. Point 38 shows the road at the point where it becomes the division between the two lobes of the Redfield Canyon Wilderness. This portion of Jackson Cabin Road, between points 35 and 38, also forms the westernmost boundary of the Bass Canyon subunit of this proposed LWC.

Ways:

- -Point 28 shows a very short unmaintained way that spurs off from Jackson Cabin Road.
- -Point 29 displays an image of a natural wash with a BLM sign prohibiting vehicular use.
- -From aerial imagery, there appeared to be a potential route in the area of point 32. However, as point 32 displays, there are no ways in this vicinity.
 - -Point 36 shows a short way that leads to a campsite (point 37) and goes no further.

Associated Human Impacts: There are no other human impacts along the eastern LWC unit boundary besides the dispersed camping sites.

Bass Canyon subunit

Segment E: Entire Boundary

SEE UNIT OVERVIEW MAP & DETAIL MAP 3

General Description: The Bass Canyon subunit is a natural extension of the Redfield Canyon Wilderness. There are no substantial human impacts in the area, and wilderness characteristics present in the Wilderness area are equally present in the contiguous area of the proposed LWC. The western LWC unit boundary follows Jackson Cabin Road between points 35 and 38. The remainder of the Bass Canyon subunit follows the BLM's property line: the northern unit boundary is the Redfield Canyon Wilderness boundary; the eastern and southern unit boundaries State Trust Lands; and the southern and western boundary is shared with TNC's Muleshoe Preserve. There are no boundary line adjustments along Bass Canyon subunit. There are no cherrystemmed routes entering this subunit. There are no discernable human impacts within the subunit boundary. Point 34 documents a foot trail built by the Sierra Club heading east toward the proposed LWC unit, but this trail ends before reaching BLM land. Therefore, no primitive routes enter the Bass Canyon Proposed LWC.

Section 4: Photopoint Data

Attributes		
Point	1	
Unit name	Redfield Canyon Wilderness Contiguous	
Route name	Not Named	
Construction	Probably only bladed once	
Use	Trucks, ATV's	
Purpose	Abandoned ranching	
Maintenance	None	
Determination	Way	
Feature	Typical Condition of Route/Way	
Feature notes		
Other notes		





Attributes			
Point	2		
	Redfield Canyon		
Unit name	Wilderness		
	Contiguous		
Route name	Not Named		
Construction	Probably only		
Construction	bladed once		
Use	infrequent OHV,		
Use	trucks		
	Abandoned		
Purpose	ranching		
	developments		
Maintenance	None		
Determination	Way		
Feature	Typical Condition		
reature	of Route/Way		
Feature notes	Obviously not		
i cature notes	maintained		
Other notes			





Attributes		
Point	3	
Unit name	Redfield Canyon Wilderness Contiguous	
Route name	Not Named	
Construction	Probably only bladed once	
Use	4-WD Trucks, ATVs	
Purpose	Unknown	
Maintenance	None	
Determination	Way	
Feature	Revegetating	
Feature notes	Very low vehicular use	
Other notes	Route ends in 200 feet	





Attributes		
Point	4	
	Redfield Canyon	
Unit name	Wilderness	
	Contiguous	
Route name	N/A	
Construction	N/A	
Use	N/A	
Purpose	N/A	
Maintenance	N/A	
Determination	N/A	
Feature	Dam, filled in with	
reature	sediment, unused	
Feature notes	Minimal visual	
i catule notes	impact	
Other notes	Substantially	
Other notes	unnoticeable	





Attributes		
Point	5	
	Redfield Canyon	
Unit name	Wilderness	
	Contiguous	
Route name	Not Named	
Construction	Bladed & Cut and	
Construction	Fill	
Use	Off Road Vehicles,	
USE	Trucks	
Purpose	Ranching,	
ruipose	recreation	
Maintenance	Old evidence - 3-5	
ivialiteliance	years ago	
Determination	Road	
Feature	Typical Condition	
reature	of Boundary Road	
Feature notes		
Other notes	Unit Boundary	





Attributes		
Point	6	
	Redfield Canyon	
Unit name	Wilderness	
	Contiguous	
Route name	Not Named	
Construction	Bladed & Cut and	
Construction	Fill	
Use	4-WD Trucks,	
use	OHV's	
Purpose	Ranching,	
Pulpose	recreation	
	Semi-recent	
Maintenance	evidence - 1-3	
	years ago	
Determination	Road	
Feature	Typical Condition	
reature	of Boundary Road	
Feature notes		
Other notes	Unit Boundary	
Other notes	Offic Bourlaury	





Attributes		
Point	7	
	Redfield Canyon	
Unit name	Wilderness	
	Contiguous	
Route name	N/A	
Construction	N/A	
Use	N/A	
Purpose	N/A	
Maintenance	N/A	
Determination	N/A	
	Large	
Feature	campsite/staging	
	area, fire ring	
Feature notes		
Other notes		





Attributes		
Point	8	
	Redfield Canyon	
Unit name	Wilderness	
	Contiguous	
Route name	Not Named	
Construction	Bladed & Cut and	
Construction	Fill	
Use	4-WD Trucks,	
ose	OHV's	
Durnoso	Ranching,	
Purpose	recreation	
	Semi-recent	
Maintenance	evidence - 1-3	
	years ago	
Determination	Road	
Feature	Typical condition of	
Teature	boundary road	
Feature notes		
Other notes	Unit Boundary	





Attributes		
Point	9	
Unit name	Redfield Canyon Wilderness Contiguous	
Route name	Not Named	
Construction	Bladed	
Use	4-WD Trucks, OHV's	
Purpose	Abandoned ranching & mining	
Maintenance	None	
Determination	Way	
Feature	Typical Condition of Route/Way	
Feature notes	Vegetation in median	
Other notes		





Attributes	
Point	10
	Redfield Canyon
Unit name	Wilderness
	Contiguous
Route name	Not Named
Construction	No evidence
Use	None
Purpose	Abandoned mine
	and corral
Maintenance	None
Determination	Reclaimed
Feature	Typical Condition
	of Route/Way
Feature notes	Revegetating
Other notes	





Attributes	
Point	11
	Redfield Canyon
Unit name	Wilderness
	Contiguous
Route name	Not Named
Construction	No evidence
Use	None
Purpose	Abandoned mine
	and corral
Maintenance	None
Determination	Reclaimed
Feature	Revegetated
Feature notes	Hard to find old
	route
Other notes	





Attributes	
Point	12
Unit name	Redfield Canyon Wilderness Contiguous
Route name	Not Named
Construction	No evidence
Use	None
Purpose	Abandoned mine and corral
Maintenance	None
Determination	Reclaimed
Feature	Revegetated
Feature notes	Difficult to follow
Other notes	





Attributes	
Point	13
	Redfield Canyon
Unit name	Wilderness
	Contiguous
Route name	N/A
Construction	N/A
Use	N/A
Purpose	N/A
Maintenance	none
Determination	N/A
Feature	Dilapidated corral
	Missing
Feature notes	wire/overgrown
	with cacti
Other notes	





Attributes	
Point	14
Unit name	Redfield Canyon Wilderness Contiguous
Route name	N/A
Construction	N/A
Use	N/A
Purpose	N/A
Maintenance	N/A
Determination	N/A
Feature	Rock dam
Feature notes	Disconnected & missing piping
Other notes	





Attributes	
Point	15
Unit name	Redfield Canyon Wilderness
	Contiguous
Route name	N/A
Construction	N/A
Use	N/A
Purpose	N/A
Maintenance	N/A
Determination	N/A
Feature	Mine shaft
Feature notes	Wooden ladder, antiquated
Other notes	Substantially unnoticeable





Attributes	
Point	16
Unit name	Redfield Canyon Wilderness Contiguous
Route name	Not Named
Construction	No evidence
Use	Off Road Vehicles
Purpose	Abandoned mine & abandoned corral
Maintenance	None
Determination	Way
Feature	Typical Condition of Route/Way
Feature notes	Only a couple hundred feet of use
Other notes	Very low vehicular





Attributes	
Point	17
	Redfield Canyon
Unit name	Wilderness
	Contiguous
Route name	Not Named
Construction	Probably only
	bladed once
Use	4-WD Trucks,
	OHV's
Purpose	Historical ranching
	& mining
Maintenance	None
Determination	Way
Feature	Revegetating
Feature notes	Narrow corridor
Other notes	





Attributes	
Point	18
Unit name	Redfield Canyon Wilderness Contiguous
Route name	N/A
Construction	N/A
Use	N/A
Purpose	N/A
Maintenance	N/A
Determination	N/A
Feature	Well-vegetated
Feature notes	Does not affect naturalness
Other notes	Unnoticeable





Attributes	
Point	19
Unit name	Redfield Canyon Wilderness Contiguous
Route name	Not Named
Construction	Probably only bladed once
Use	4-WD Trucks, OHV's
Purpose	Historic ranching & mining
Maintenance	None
Determination	Way
Feature	Very brushy route
Feature notes	Narrow corridor
Other notes	





Attributes	
Point	20
	Redfield Canyon
Unit name	Wilderness
	Contiguous
Route name	Not Named
Construction	Bladed
Use	4-WD Trucks,
ose	OHV's
Purpose	Unknown
	Semi-recent
Maintenance	evidence - 1-3
	years ago
Determination	Road
Determination	Road
Other notes	
Other notes	Unit Boundary





Attributes	
Point	21
	Redfield Canyon
Unit name	Wilderness
	Contiguous
Route name	Not Named
Construction	Bladed & Cut and Fill
	4-WD Trucks,
Use	OHV's
Purpose	Multiple uses
	Semi-recent
Maintenance	evidence - 1-3
	years ago
Determination	Road
Feature	Boundary WIR
Feature notes	
Other notes	Unit Boundary





Attributes	
Point	22
Unit name	Redfield Canyon Wilderness Contiguous
Route name	Not Named
Construction	Probably only bladed once
Use	4-WD Trucks, OHV's
Purpose	Ranching, prospecting
Maintenance	None
Determination	Way
Feature	Typical Condition of Route/Way
Feature notes	
Other notes	





Attributes	
Point	23
Unit name	Redfield Canyon Wilderness Contiguous
Route name	Gas Pipeline Road
Construction	Bladed
Use	4-WD Trucks, OHV's
Purpose	Utility ROW/Recreation
Maintenance	Old evidence - 3-5 years ago
Determination	Road
Feature	Portion of rd open to public
Feature notes	
Other notes	Unit Boundary





Attributes	
Point	24
	Redfield Canyon
Unit name	Wilderness
	Contiguous
Route name	Gas Pipeline Road
Construction	Bladed
Use	4-WD Trucks,
	OHV's
Purpose	Utility access/ROW
Maintenance	Likely if needed
Determination	Road
Feature	Closure point
Feature notes	Locked gate
Other notes	Unit Boundary





Attributes	
Point	25
Unit name	Hot Springs Canyon
Route name	Bass Canyon Trail
Construction	Hand labor
Use	Foot use
Purpose	Recreation
Maintenance	Likely if needed
Determination	Trail
Feature	Typical Condition of Route/Way
Feature notes	
Other notes	





Attributes	
Point	26
Unit name	Redfield Canyon Wilderness Contiguous
Route name	Gas pipeline road
Construction	Probably only bladed once
Use	4-WD Trucks, OHV's (restricted access)
Purpose	Utility access/ROW
Maintenance	Likely if needed
Determination	Road
Feature	Closure point
Feature notes	
Other notes	





Attributes	
Point	27
	Redfield Canyon
Unit name	Wilderness
	Contiguous-
Route name	Jackson Cabin Rd
Construction	Bladed & Cut and
Construction	Fill
Use	4-WD Trucks,
ose	OHV's
Purpose	Forest access,
ruipose	recreation
	Semi-recent
Maintenance	evidence - 1-3
	years ago
Determination	Road
Feature	Typical Condition
Teature	of Route/Way
Feature notes	
Other notes	Unit Boundary
•	





Attributes	
Point	28
Unit name	Redfield Canyon Wilderness
	Contiguous
Route name	Not Named
Construction	No evidence
Use	4-WD Trucks
Purpose	None apparent
Maintenance	None
Determination	Way
Feature	Typical Condition of Route/Way
Feature notes	Way is 10m long
Other notes	





Attributes	
Point	29
	Redfield Canyon
Unit name	Wilderness
	Contiguous
Route name	N/A
Construction	N/A
Use	
Purpose	N/A
Maintenance	N/A
Determination	Natural Wash
Feature	Closed to vehicle
	use
Feature notes	
	Vehicle use well
Other notes	managed in the
	Muleshoe CMA





Attributes	
Point	30
	Redfield Canyon
Unit name	Wilderness
	Contiguous
Route name	Jackson Cabin Rd
Construction	Bladed & Cut and
Construction	Fill
Use	4-WD Trucks,
USE	OHV's
Purpose	Multiple uses
	Semi-recent
Maintenance	evidence - 1-3
	years ago
Determination	Road
Feature	Looking north
i eature	through TNC land
Feature notes	Cliffs in Bass
	Canyon unit & in
	Wilderness
Other notes	





Attributes	
Point	31
Unit name	Redfield Canyon Wilderness Contiguous
Route name	Jackson Cabin Rd
Construction	Bladed & Cut and Fill
Use	4-WD Trucks, OHV's
Purpose	Multiple uses
Maintenance	Semi-recent evidence - 1-3 years ago
Determination	Road
Feature	Looking at the Cherry Spring Canyon & Hot Springs Canyon units
Feature notes	
Other notes	





Attributes	
Point	32
Unit name	Redfield Canyon Wilderness
Route name	Contiguous N/A
Construction	N/A
Use	N/A
Purpose	N/A
Maintenance	N/A
Determination	N/A
Feature	Looking over Wildcat Canyon & at Wildcat Peak
Feature notes	No visible ways, routes, or trails
Other notes	





Attributes	
Point	33
Unit name	Redfield Canyon Wilderness
	Contiguous
Route name	Jackson Cabin Rd
Construction	Bladed & Cut and Fill
Use	4-WD Trucks, OHV's
Purpose	Multiple uses
Maintenance	Semi-recent evidence - 1-3 years ago
Determination	Road
Feature	TNC Boundary
Feature notes	
Other notes	Unit Boundary





Attributes	
Point	34
Unit name	Redfield Canyon Wilderness Contiguous
Route name	Sierra Club Trail
Construction	Hand labor
Use	Foot use
Purpose	
Maintenance	None
Determination	Trail
Feature	Typical Condition of Route/Way
Feature notes	Trail ends near BLM boundary
Other notes	





Attributes		
Point	35	
Unit name	Redfield Canyon Wilderness Contiguous	
Route name	Jackson Cabin Rd	
Construction	Bladed & Cut and Fill	
Use	4-WD Trucks, OHV's	
Purpose	Multiple uses	
Maintenance	Semi-recent evidence - 1-3 years ago	
Determination	Road	
Feature	Typical Condition of Route/Way	
Feature notes		
Other notes	Unit Boundary	





Attributes	
Point	36
Unit name	Redfield Canyon Wilderness Contiguous
Route name	Not Named
Construction	No evidence
Use	4-WD Trucks, OHV's
Purpose	Camping
Maintenance	None
Determination	Way
Feature	Typical Condition of Route/Way
Feature notes	Low use level
Other notes	Kept open solely by passage of vehicles





Redfield Canyon Wilderness Contiguous Proposed LWC

Attributes	
Point	37
	Redfield Canyon
Unit name	Wilderness
	Contiguous
Route name	N/A
Construction	N/A
Use	N/A
Purpose	N/A
Maintenance	N/A
Determination	N/A
Determination	Campsite
Feature notes	
Other notes	





Attributes		
Point	38	
Unit name	Redfield Canyon Wilderness Contiguous	
Route name	Jackson Cabin Rd	
Construction	Bladed & Cut and Fill	
Use	4-WD Trucks, OHV's	
Purpose	Multiple uses	
Maintenance	Old evidence - 3-5 years ago	
Determination	Road	
Feature	Typical Condition of Route/Way	
Feature notes		
Other notes		



