

DARK CANYON, JACKSON MOUNTAIN & COTTONWOOD CANYON

LANDS WITH WILDERNESS CHARACTERISTICS

*PUBLIC LANDS CONTIGUOUS TO THE
BLM'S NORTH SANTA TERESA WILDERNESS AND THE
USFS'S SANTA TERESA WILDERNESS, ARIZONA*



ARIZONA WILDERNESS COALITION

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

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Prepared by:

Joseph M. Trudeau &
Amber R. Fields



hassayampa
forestry
PRESCOTT, ARIZONA

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Cover Photo: The trail shown here, at point S2, is the western boundary of the North Santa Teresa Wilderness. In this report, we provide documentation that the lands contiguous to this wilderness themselves have wilderness characteristics. The peak in the background is entirely within the proposed LWC.

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 up-to-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.

¹Memorandum 2011-154 is available online at:
http://www.blm.gov/wo/st/en/info/regulations/Instruction_Memos_and_Bulletins/national_instruction/2011/IM_2011-154.html

² Manual 6310 is available online at :
http://www.blm.gov/pgdata/etc/medialib/blm/wo/Information_Resources_Management/policy/blm_manual.Par.38337.File.dat/6310.pdf

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**

Sufficient roadless area to satisfy size requirements (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**

Affected primarily by the forces of nature – 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.

Human impacts – 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.

Outside human impacts – 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 queried 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.

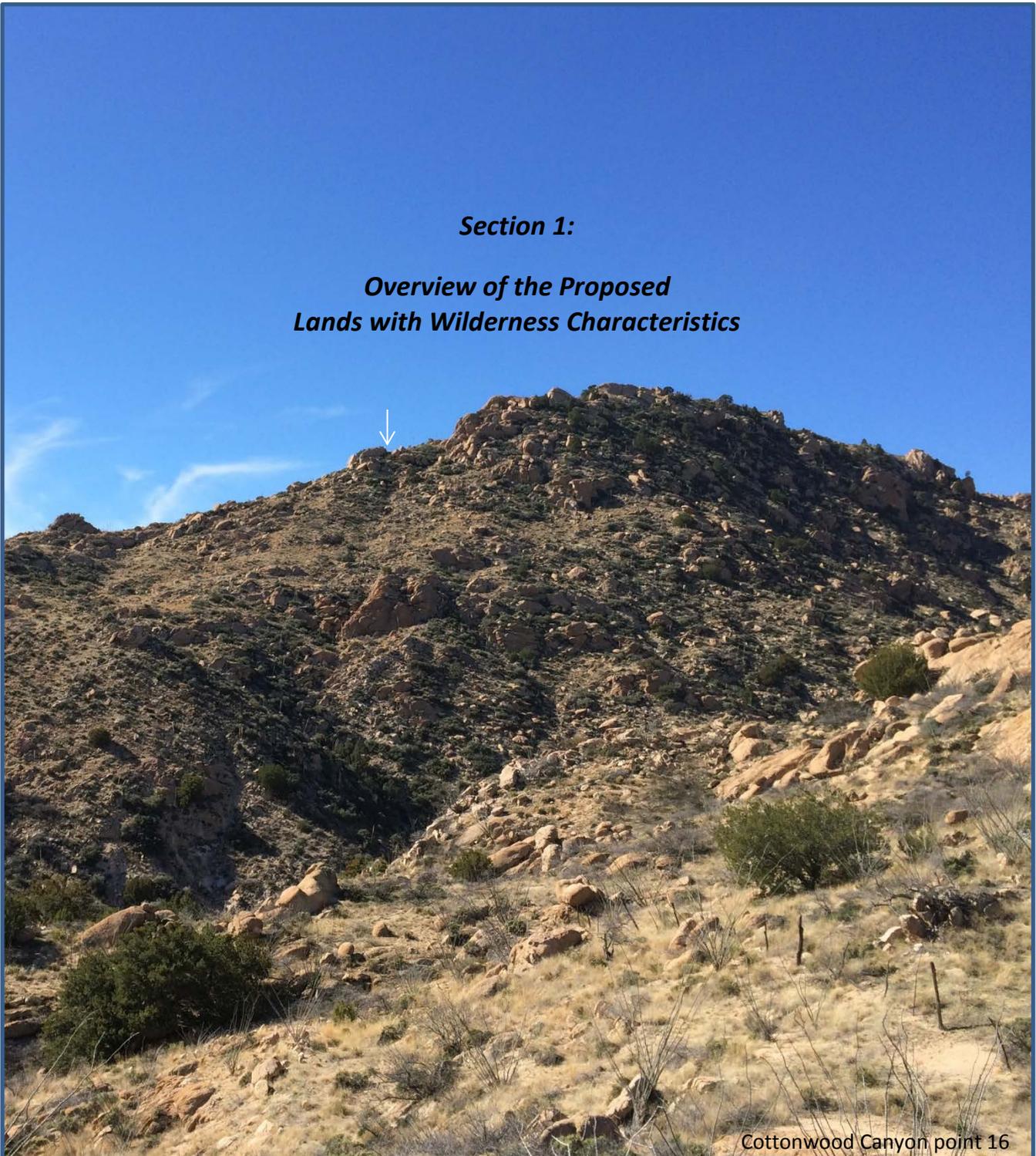
STEP 4: FIELD INVENTORY

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 geotags; 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"*.

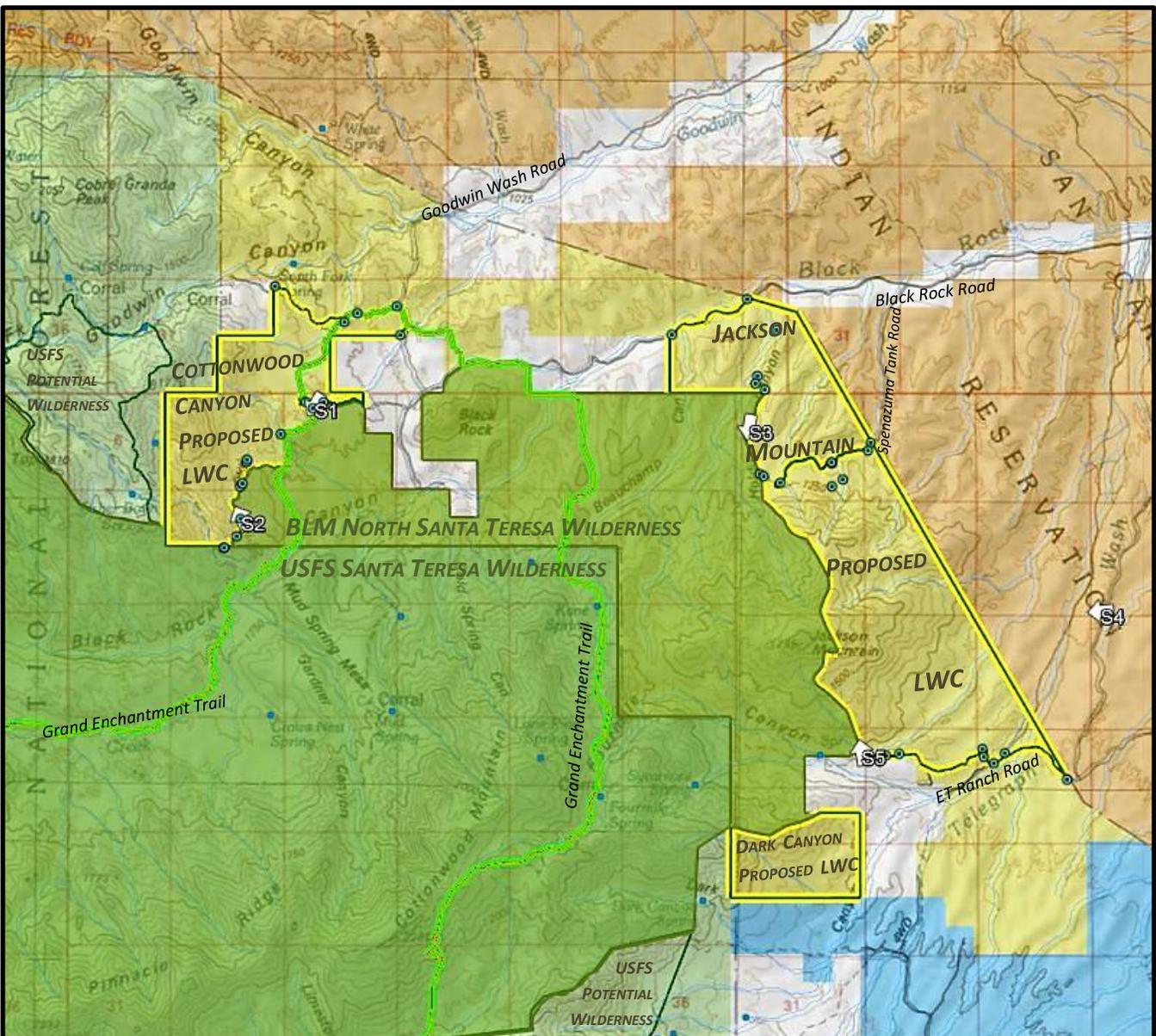
Section 1:
**Overview of the Proposed
Lands with Wilderness Characteristics**



Cottonwood Canyon point 16

The fence at right climbs the rocky hillside and crosses the ridge at the white arrow. The USFS Santa Teresa Wilderness is left of the fence, and the Cottonwood Canyon Proposed LWC is to the right. The proposed LWC possesses the same qualities of naturalness, solitude, and primitive recreation as the contiguous Wilderness area.

Unit Introduction: Overview map showing unit location & labeled boundaries



| | | | | | | | | | |
|-------------------------|-------------------|--------------------|--|-----------------------|-----------------|---------------------|--------------|---------------------------|--------------------|
| Bur. of Land Management | PROPOSED LWC Unit | POTENTIAL LWC Unit | Area of Critical Environmental Concern | Designated Wilderness | National Forest | AZ State Trust Land | Private Land | USFS Potential Wilderness | Indian Reservation |
|-------------------------|-------------------|--------------------|--|-----------------------|-----------------|---------------------|--------------|---------------------------|--------------------|

The Santa Teresa Wilderness Proposed LWC includes three wilderness-contiguous units of BLM land in the Santa Teresa Mountains of western Graham County, Arizona, about 25 miles northwest of the city of Safford. Access to the area is gained from ET Ranch Road, off of Klondyke Road; or Black Rock Road and Goodwin Wash Road which cross the San Carlos Reservation from US Highway 70 in Emery and Fort Thomas. As this map shows, the units share substantial boundary with both the USFS Santa Teresa Wilderness and the BLM North Santa Teresa Wilderness, and as such they expand the outstanding hiking, backpacking, rock climbing and nature study opportunities that this range is known for. The proposed LWC's are in a wild, natural condition, and like their neighboring Wilderness areas, are rough, mountainous country festooned with granite ledges, boulders and polished bedrock canyons. The vegetation ranges from rolling grassland savannas along the northeastern slopes of Jackson Mountain, to Sonoran shrub-scrub desert on south facing slopes, to chaparral and woodland at higher elevations. This range is widely regarded as about as remote and wild as anything in Arizona. Human impacts here are traces of efforts to tame the land, which in such an at-times hostile environment, are never guaranteed success. With a high density of mountain lions, black bears, and the possibility of Mexican grey wolves, visitors here are sure to have an authentic wilderness experience in a profoundly isolated Sky Island mountain range.

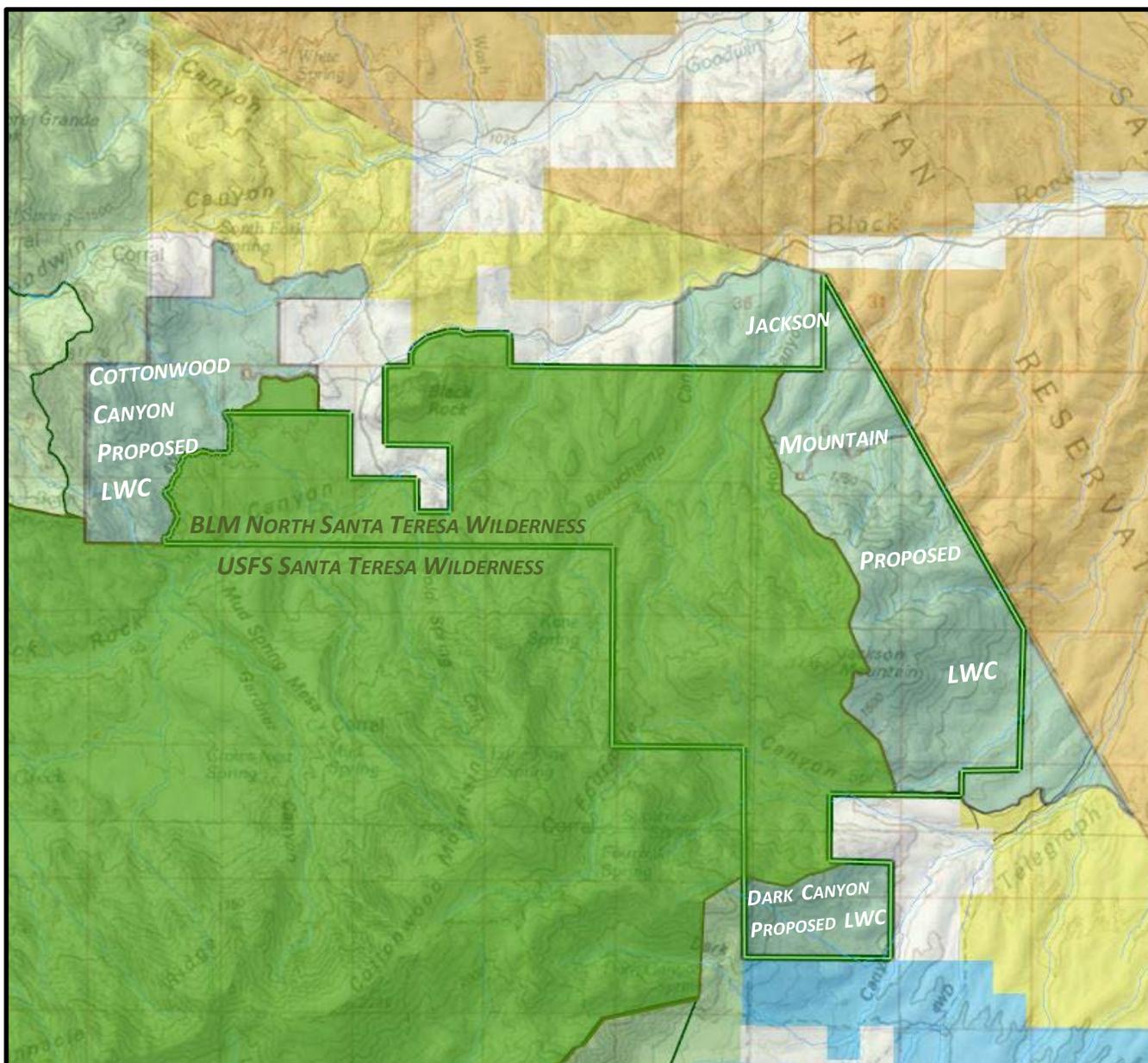
- S4 Scenic Photos shown in report text
- Photo Data Points (Numbers shown in Sections 3 & 4)
- Wilderness Inventory Roads
- Primitive Routes or Vehicle Ways
- Grand Enchantment Trail
- Creeks, Canyons and Washes
- Springs



Map of Proposed LWC, showing photo data points, vehicle routes, and unit boundaries. Background map USGS topographic. 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.



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



| | | | | | | | | | |
|-------------------------|-----------------|---------------------|--------------|-----------------------|--------------------|-------------------|------------|---------------------------|-----------------------|
| Bur. of Land Management | National Forest | AZ State Trust Land | Private Land | National Park Service | Indian Reservation | Proposed LWC Unit | Former WSA | USFS Potential Wilderness | Designated Wilderness |
|-------------------------|-----------------|---------------------|--------------|-----------------------|--------------------|-------------------|------------|---------------------------|-----------------------|

In this report we propose three units that are contiguous with designated Wilderness. Two of these were once part of the Black Rock Wilderness Study Area, shown above in green highlighted line, and proposed as the All Wilderness alternative in the 1987 Wilderness Final EIS. The Preferred Alternative removed the Dark Canyon unit because it would have been difficult to manage wilderness character, which we entirely disagree with. The Dark Canyon unit is completely unaffected by human modification and enhances the overall wilderness values of the area. The Preferred Alternative also drew the Wilderness boundary following ridges over Jackson Mountain because of the expected exploration on the fluorspar claims off of the way we show at point 2. Then, it was estimated that 10 acres would be disturbed for exploration, development, and production of the fluorspar claim, and nine acres would be disturbed due to road development. Twenty-nine years later, none of these projects have occurred, and the cherrystemmed road is now an unused vehicle way. The BLM has also acquired through exchange several parcels of State Trust Land, including the southeastern portion of the Jackson Mountain unit not included in the WSA. The Cottonwood Canyon unit was fully not evaluated for wilderness values because of the road that then existed and accessed a water catchment. We have documented this route as nearly entirely reclaimed, and as such the unit is contiguous with 2 Wilderness areas. The route is now used as part of the Grand Enchantment Trail, a 770 mile hiking route that connects Albuquerque to Phoenix through predominantly public lands.

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.

1 mile

3 miles

Section 2:

**Documentation of
Wilderness Characteristics**

The south face of Jackson Mountain, seen from a brushy vehicle way north of the ET Ranch headquarters, is a typical upper Sonoran shrub-scrub plant community, transitional to the Apache Highlands ecoregion, with mixed cacti, scrub oak, catclaw, and many shrub species interspersed with grasses and forbs. The Wilderness boundary cuts through the center of the frame, but the proposed LWC, to the right, is every bit as wild as the Wilderness to the left. What appears to be the summit is actually just a low knob off the peak; the main summit is still very much higher and farther away.



Size Criteria

The proposed LWC meets the minimum size criteria for roadless lands set forth in BLM Manual 6310. Lands may be less than 5,000 acres if they are contiguous with designated Wilderness. The Cottonwood Canyon unit, at 1,315 acres, is contiguous with both the BLM and USFS Wilderness areas. The Jackson Mountain unit, at 3,257 acres is contiguous with the North Santa Teresa Wilderness. The Dark Canyon unit, at 488 acres is also contiguous with the North Santa Teresa Wilderness. There are no State, private, or other inholdings contained within the proposed LWC units. Together the three units equate to 5,060 acres, and combined with both the USFS and BLM Wilderness would total slightly less than 38,000 acres.



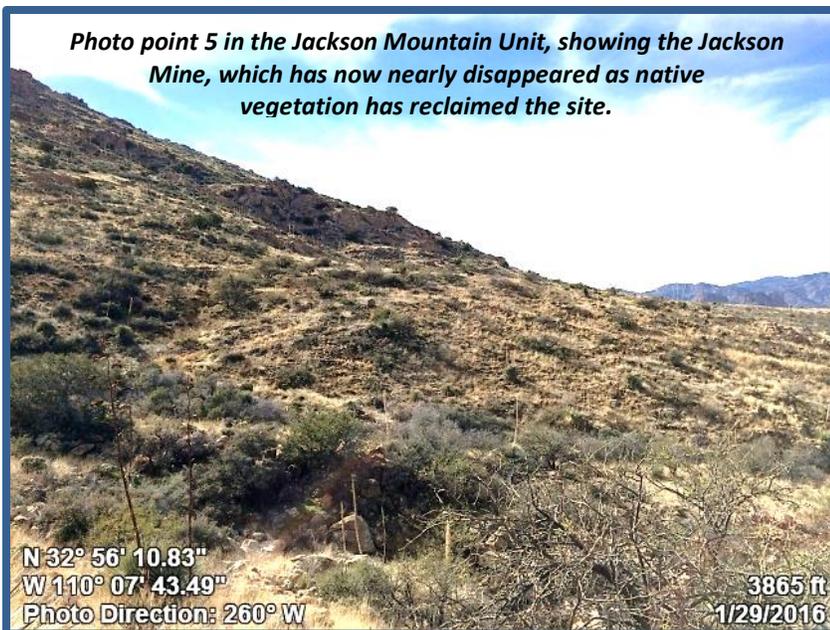
This photo was taken from a road on the neighboring San Carlos Reservation, looking across Telegraph Wash at the southeastern face of Jackson Mountain. Cottonwood Mountain is visible in the background, beyond Fourmile Canyon. From this vantage, most of Telegraph Wash is on the San Carlos Reservation, and all of Jackson Mountain, except for the summit block, is the Jackson Mountain unit. The boundary with Wilderness follows the left skyline of Jackson Mountain. Much of this face of the mountain would have been designated Wilderness under the "Enhanced Wilderness Alternative" in the 1987 Final Wilderness EIS for the Safford District, but ultimately the border followed the ridgeline. The wilderness characteristics that define this unit are made even more outstanding in that the unit borders the wild, undeveloped land of the San Carlos Reservation. Prospects for finding solitude in this mountain range are enhanced by the access limitations imposed by the Tribe. Most recreationists choose not to travel on reservations, or would not take the time to purchase the permit. However, for those willing to do a little more planning, the effort is well worth it.

Naturalness

The proposed LWC is affected primarily by the forces of nature and appears natural to the average visitor. The three units we are proposing as Lands with Wilderness Characteristics are natural, in spite of some very minor human imprints within their boundaries. In fact, these impacts have previously been determined by the BLM as being considered natural. In its analysis of the Black Rock WSA, which later became the North Santa Teresa Wilderness, the agency accepted as natural:

“9 miles of fence, a 2 mile pipeline, two water troughs, six small dirt dams, one cement dam, three developed springs, and 1 mile of vehicle way. These imprints are small, scattered throughout the area and screened by vegetation or topography, thus have little impact on naturalness” (BLM, 1987: p. 58).

The units proposed in this report are in a similar state of naturalness as during the BLM’s inventory. We identified two short vehicle ways, a reclaimed way that is now a trail, a few ranching installations, and some old and revegetated mine diggings, none of which substantially detract from the very natural state of the unit.



The eastern wilderness boundary was drawn over Jackson Mountain to exclude mining impacts on the eastern slope of that peak. The Jackson Mine, shown in points 5 and 6, and once accessed by the reclaimed way shown in point 4, was mined for fluorspar in the 1950’s, and has since completely naturalized. This impact was actually assessed by the BLM for the Black Rock WSA, and they excluded it from the unit by a cherrystem. Our points clearly show that the site has disappeared from the landscape view, and does not

impact naturalness of the Jackson Mountain Proposed LWC as a whole. The way shown at point 2 in the Jackson Mountain unit was actually a cherrystem then, and the BLM determined that it only impacted a small area. Today, this way is revegetated and not used by any vehicles.

Vehicle ways and trails do not impact the naturalness of the proposed LWC units. The Cottonwood Canyon unit contains only one primitive route with a short spur off of it, which has revegetated and been reclaimed by nature (for example see the spur in point 13). This old road that serves as the eastern boundary for the Cottonwood Canyon unit now receives almost no vehicular use (no public vehicle access exists) and has turned into a trail that does not substantially affect the naturalness of the unit (see points 8, 9, 12, 14 & 15). The Jackson Mountain unit contains only a few primitive routes.

These are also largely in the process of revegetating (point 14) or have been fully reclaimed by nature (see points 2, 4, 16, 19 & 20). The cherrystem that does receive vehicular use in the Jackson Mountain unit is used solely by the BLM and the rancher (points 3 & 7) because it is closed to public access at two locations (see point 1). This cherrystem has no impact to the naturalness of the LWC because it has been excluded from the unit, use is very uncommon, and cherrystems are entirely acceptable in lands with wilderness character. The Dark Canyon unit contains no vehicle ways, and is in a completely natural condition.



This photo shows the route that was used as the western boundary to the North Santa Teresa's Wilderness, which is clearly not a wilderness inventory road. Because this revegetated route is not a road, the Cottonwood Canyon units' eastern boundary is contiguous with the Wilderness area. The Coronado National Forests' Santa Teresa's Wilderness is in the distance, and the boulder-strewn mountain at right is in the proposed LWC. This route is now used as a portion of the Grand Enchantment Trail; a long distance route that hikers follow from Albuquerque to Phoenix. A Wilderness Boundary sign can be seen at far left, and a water tank can be seen at the far right edge of the photograph. The water tank is excluded from the unit at the end of a cherrystem that comes from private land. Installations such as this are hardly noticeable in such a grand landscape.

Ranching infrastructure and activities are minimal throughout the Santa Teresa's Proposed LWC units, and those installations that do exist do not affect the naturalness of the proposed LWC because these impacts have largely been excluded from the three units (Spnazuma Tank and Corral on Jackson Mountain, seen in points 3 and 7; a single, small water tank at point 15; and the corral and tanks in Cottonwood Canyon at point 7 are excluded). Human impacts located outside LWC units do not affect naturalness unless they are major, and none of the existing ranching infrastructure can be considered major. One water catchment system and one 2" pipeline with a trough is located within the three units, but these objects are not dissimilar to others found in existing Wilderness areas, and do not have

a substantially noticeable impact to naturalness. In Cottonwood Canyon, a small stone dam, water pipe, and steel tank can be seen in points 10 and 11, and at Jackson Mountain, a single pipe that supplies a trough can be seen at points 8, 22 and 22. No water catchments or range improvements are known to exist in the Dark Canyon unit. Several dirt tanks have been built through the years, but all have been grown over with shrubbery and appear entirely natural to the average visitor.

The three Santa Teresa's Proposed LWC units are dominated by the forces of nature. Past major impacts have been abandoned and had decades to naturally recover. Current impacts described above do not substantially affect the naturalness of the proposed LWC units to the point of impacting visitor experience.

Solitude & Recreation

The 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). All of these activities can be enjoyed at the proposed LWC. The three units proposed here are contiguous with existing Wilderness, and as such they inherit the qualities of the Wilderness area. Opportunities for primitive recreation, solitude, and adventure in an unconfined, wild mountain range, that are well known in the two Santa Teresa Wilderness units, are enhanced by the proposed LWC units, and conversely, the proposed LWC is made great by the Wilderness areas it borders.

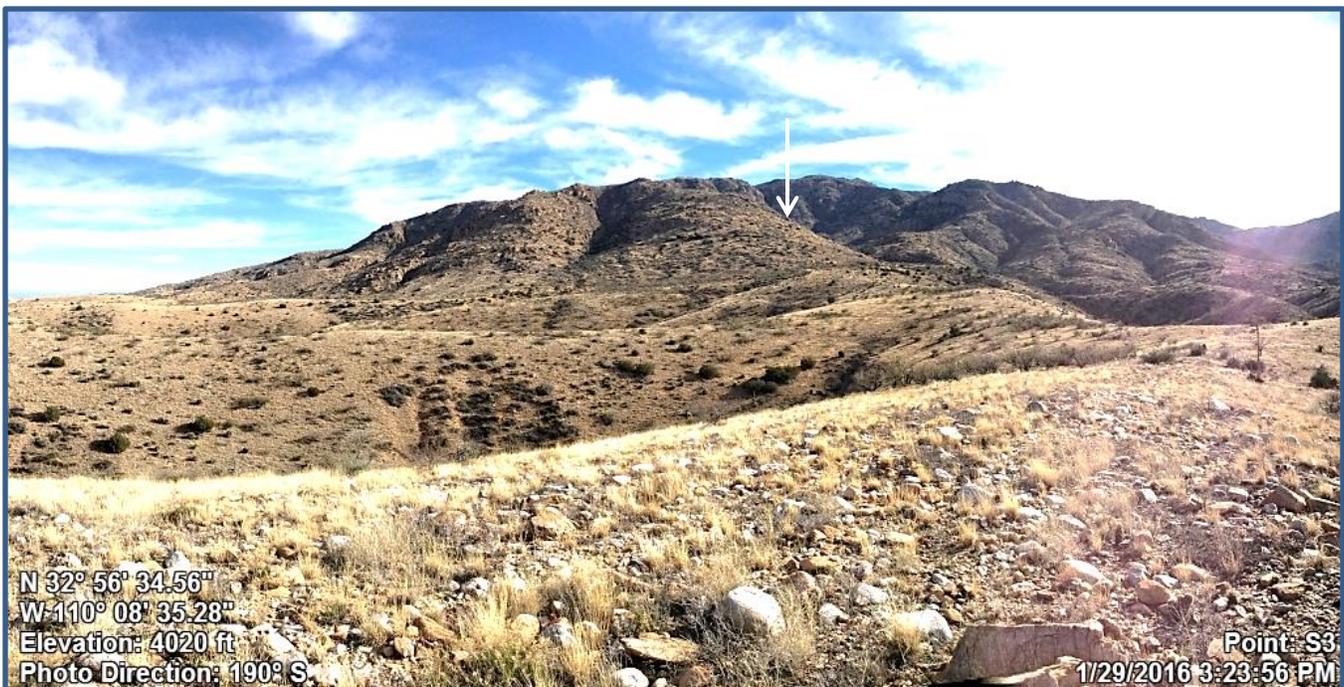
It is easy for visitors to find seclusion within the Santa Teresa Proposed LWC units. There are outstanding opportunities for solitude among the boulder covered mountainsides and canyons. The LWC units contain numerous named and unnamed canyons and drainages where there is an abundance of high-quality opportunities for solitude in this remote region. The BLM used the following description for the Black Rock WSA, which included much of the proposed LWC area:

"The WSA's size, shape, topographic screening and isolated location provide outstanding opportunities for solitude throughout. This WSA is enhanced on the south by the Santa Teresa Wilderness in the contiguous Coronado National Forest. Black Rock WSA also offer outstanding opportunities for primitive recreation, including hiking, backpacking, horseback riding, hunting, rock climbing, bird watching, photography and sightseeing. The summit of Jackson Mountain offers wide vistas of the Safford Valley and the Gila, Santa Teresa, Galiuro, and Pinaleno Mountains. Recreation opportunities are further enhanced by the opportunity to continue them in the Santa Teresa Wilderness" (BLM, 1987: p. 58).

The BLM's decision to exclude the eastern flank of Jackson Mountain and the Cottonwood Canyon area was a management decision that fit the plans for that time. But nearly 30 years have passed, the mining never expanded, the vehicle ways have degraded into brushy trails, and the primitive character of the proposed LWC is a natural extension of the current Wilderness.

Hunters will find wilderness-quality hunting opportunities within the Santa Teresa Proposed LWC. Major species of economical and recreational importance found within the proposed units include band-tailed pigeon, black bear, Gambel's quail, javelina, mountain lion, white-tailed deer, and white winged dove (www.habimap.org). The rough, rocky terrain gives hunters an extra challenge, with grand rewards. Fisher Canyon, Cottonwood Canyon and Holdup Canyon all have ephemeral streams that provide for spectacular bird watching. Numerous crags supply the LWC with habitat for rare or uncommon raptors. The boulder-clad mountainsides contain countless microsites for interesting plants, mosses, lichens and biological soil crusts. Wonderful opportunities exist for outstanding photography of unique plants and animals in an incredibly wild and scenic landscape.

Prospects for other forms of primitive and unconfined recreation are outstanding. The Grand Enchantment Trail follows along the eastern boundary of the Cottonwood Canyon unit. The existence of this primitive trail gives recreationists, especially horseback riders and backpackers, an exceptionally beautiful corridor to access the contiguous Santa Teresa Wilderness. Day hikers will find this trail helpful in accessing the difficult to negotiate hillsides of the Cottonwood Canyon unit, where one will most certainly be challenged by technical terrain. Climbing to any one of the various high points within the LWCs earns visitors incredible views of the contiguous Wilderness areas, as well as great views of Mount Turnbull on the San Carlos Reservation. The summit of Jackson Mountain provides a commanding view of eastern Arizona. Whether it's a day-hike, a long-distance backpacking expedition, or white-tailed deer hunting, these three proposed LWC units provide outstanding primitive experiences in a sublime landscape.



The ridgeline that arcs down the north side of Jackson Mountain (see arrow) is the boundary between the North Santa Teresa's Wilderness (right) and the Jackson Mountain Proposed LWC unit (left). This photo was taken standing on the boundary between the two; no human impacts of any sort are visible. Naturalness abounds and adventure awaits in this stunning mountainside grassland.

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 provides habitat for multiple sensitive species

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

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 Telegraph Wash and Jackson Mountain quadrangles. A table listing the species found within that area is provided in Appendix 1. Our determination is that the habitat requirements for all of the species listed for these quadrangles may be available in the proposed LWC. The protection of the proposed LWC would benefit these species, though they may or may not occur within the proposed LWC.

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, Instituto 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 contains the Santa Teresa Mountains Conservation Area, which encompasses 3,707 acres in the Santa Teresa Mountains. Most of the area is protected within the North Santa Teresa Wilderness, but the western edge of it is within the Cottonwood Canyon subunit of the proposed LWC. 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, which include shrub, chaparral, oak, and pine oak woodlands, peregrine falcon, black bear, and an extremely rare plant which occurs within the area. The table showing the target criteria from this analysis is provided in Appendix 2.

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 preserving the vibrant fabric of life that is cherished by the residents of Arizona and the scenic backdrop to our lives.

The land contained in the proposed LWC units is dominated by natural forces, especially when considered in combination with the North Santa Teresa and the Santa Teresa Wilderness areas. Because these areas are contiguous, the wilderness characteristics found in the Wilderness areas, according to BLM Manual 6310, also exists within the proposed LWCs. Primitive recreational activities within the LWC units are heightened when combined with the potentials in the Wilderness areas. However, as we have documented, the LWC units contain wilderness character all their own as well.

We have presented information new to the BLM regarding current conditions of what were once wilderness inventory roads and are now unmaintained primitive routes. Furthermore, some anticipated mining impacts that lead to the exclusion of parts of the Black Rock WSA from the North Santa Teresa Wilderness, never occurred. What mining disturbance was present in 1987 has since been abandoned and naturalized. The Jackson Mountain, Dark Canyon and Cottonwood Canyon LWC units are natural extensions to the existing Wilderness areas with outstanding wilderness characteristics.

The isolated, rough and rocky country encompassed by the proposed LWC units is absolutely deserving of protections granted by LWC management. The Grand Enchantment Trail is a valuable feature of the Cottonwood Canyon Proposed LWC that enhances the potential for outstanding primitive recreation within the LWC itself, and in the two contiguous Wilderness areas. As development and the works of man inch ever closer to these wild places, it becomes more important than ever that we identify and protect lands with wilderness characteristics for the benefit of wildlife, watersheds, and future generations of Americans.

Appendix 1: Arizona Heritage Data Management System report for the Santa Teresa Proposed LWC

| Quad Name | Scientific Name | Common Name | USESA | USFS | BLM | GRANK | SRANK | SGCN | NPL |
|------------------|--|------------------------------|-------|------|-----|--------|-------|------|-----|
| TELEGRAPH WASH | <i>Echinocereus leidingii</i> | Pinaleno Hedgehog Cactus | | | | G4G5T4 | S2 | | SR |
| JACKSON MOUNTAIN | <i>Abutilon reventum</i> | Yellow Indian Mallow | | | | G3G5 | S2 | | |
| JACKSON MOUNTAIN | <i>Aquila chrysaetos</i> | Golden Eagle | | | S | G5 | S4 | 1B | |
| JACKSON MOUNTAIN | <i>Astragalus cobrensis var. cobrensis</i> | Copper Mine Milkvetch | | | | G4T4 | S2 | | |
| JACKSON MOUNTAIN | <i>Echinocereus leidingii</i> | Pinaleno Hedgehog Cactus | | | | G4G5T4 | S2 | | SR |
| JACKSON MOUNTAIN | <i>Echinocereus santaritensis</i> | Santa Rita Hedgehog Cactus | | | | GNR | S3 | | |
| JACKSON MOUNTAIN | <i>Erigeron pringlei</i> | Pringle's Fleabane | | | | G2 | S2 | | |
| JACKSON MOUNTAIN | <i>Falco peregrinus anatum</i> | American Peregrine Falcon | SC | S | S | G4T4 | S4 | 1A | |
| JACKSON MOUNTAIN | <i>Hymenoxys ambigens var. ambigens</i> | Pinaleno Mountain Rubberweed | | | | G3?T1? | S1? | | |
| JACKSON MOUNTAIN | <i>Phemeranthus parviflorus</i> | Small-flowered Flameflower | | | | G5 | S3 | | |

Appendix 2: Santa Teresa Conservation Area Conservation Target Ecosystems and Species
From Marshall et al., 2004: p. 124

| Conservation Area 40 Santa Teresa Mountains | | | Total Conservation Targets |
|---|--|----------------------------|----------------------------|
| Site size (hectares): 1,500 | | (acres): 3,707 | 7 |
| Taxonomic Group | Scientific Name | Common Name | Global E&A Rank Status |
| Ecological System | | Apachean Shrubland | GU |
| | | Interior Chaparral | GU |
| | | Madrean Encinal | GU |
| | | Madrean Oak-Pine Woodland | GU |
| | | American peregrine falcon | G3 |
| Bird | <i>Falco peregrinus anatum</i> | American peregrine falcon | G3 |
| Mammal | <i>Ursus americanus</i> | Black bear | G5 |
| Vascular plant | <i>Hymenoxys ambigens var ambigens</i> | Pinaleno mountain plummera | G1 |

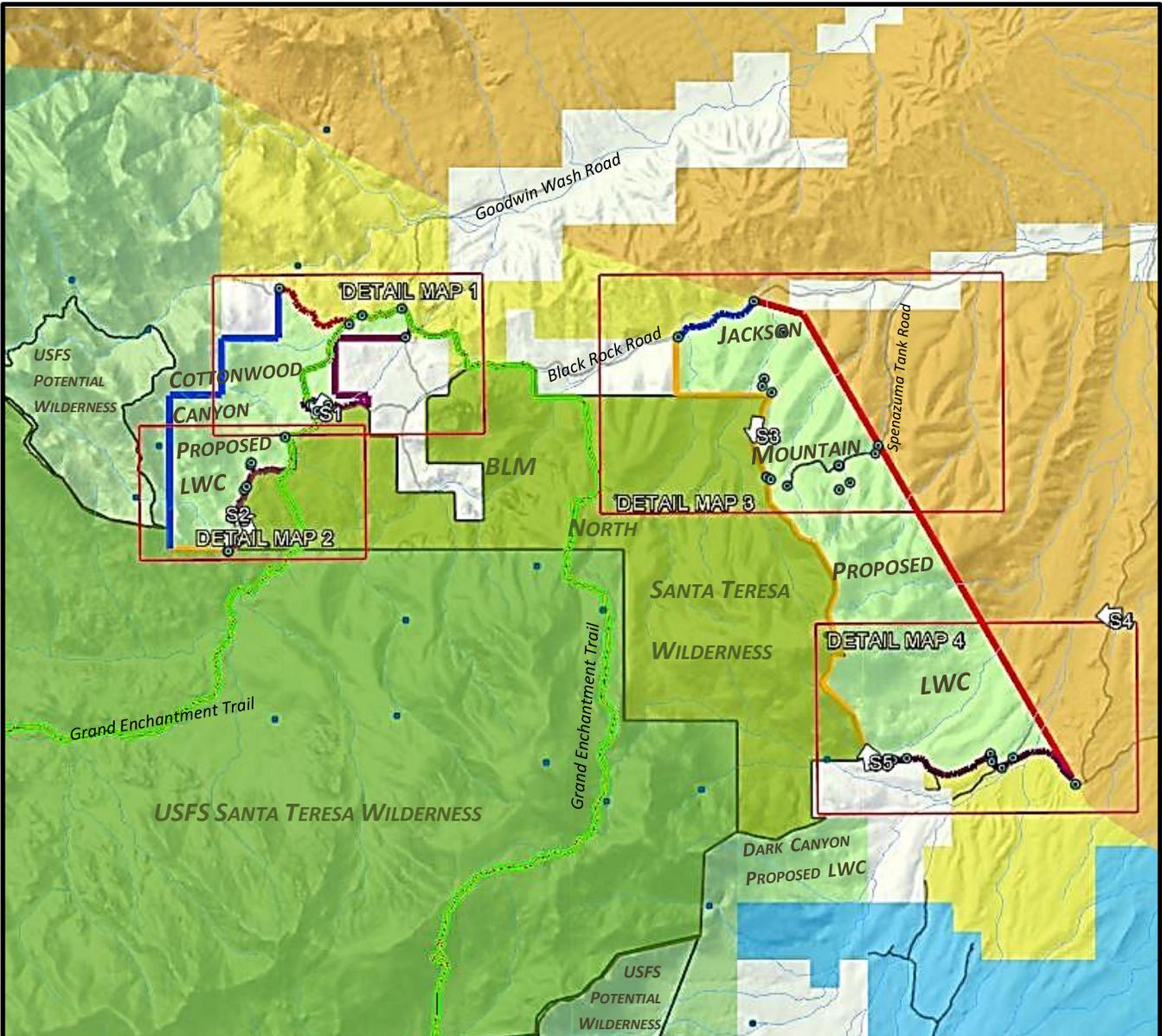
Section 3:

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

Photo point 10: the largest impact within the Cottonwood Canyon Proposed LWC is visible in the center of this photo. A single 24-foot diameter corrugated steel water tank holds water collected at a two-foot tall stone dam and piped through 200-feet of 8-inch aluminum duct. The objects are disguised by vegetation and topography, and are only noticeable when right upon them. They would be even better disguised if painted tan to match the surrounding rocks. This tank is probably an important source of water for those hiking the Grand Enchantment Trail during warmer months. The entire view beyond the tank is protected Wilderness, including Jackson Mountain ("A"), Cottonwood Mountain ("B"), Pinnacle Ridge ("C"), Mud Spring Mesa ("D") and Black Rock Canyon ("E").



Overview Map with Boundary Segments & Detail Map Keys



| | | | | | | | | | |
|-------------------------|-------------------|----------------|--|-----------------------|-----------------|---------------------|--------------|-----------------------|--------------------|
| Bur. of Land Management | PROPOSED LWC Unit | Detail Map Key | Area of Critical Environmental Concern | Designated Wilderness | National Forest | AZ State Trust Land | Private Land | National Park Service | Indian Reservation |
|-------------------------|-------------------|----------------|--|-----------------------|-----------------|---------------------|--------------|-----------------------|--------------------|

Unit boundary descriptions are organized by color-coded Boundary Segments. Detail Maps show photo points over 7.5' USGS topographic maps. The Proposed LWC description is divided between two sub units:

| | | |
|-------------------|--|--|
| Cottonwood Canyon | | Boundary Segment A: Northern Boundary, Goodwin Wash Rd (points 1-4) |
| | | Boundary Segment B: Eastern Boundary, Wilderness/Private land (points 4-17) |
| | | Boundary Segment C: Southern Boundary, Wilderness (point 16) |
| | | Boundary Segment D: Western Boundary, Coronado National Forest, Private land |
| Jackson Mountain | | Boundary Segment A: Eastern Boundary, San Carlos Reservation (points 1, 10 + 18) |
| | | Boundary Segment B: Southern Boundary, ET Ranch Rd, private lands (pts 10-16) |
| | | Boundary Segment C: Western Boundary, Wilderness/private land (pts 9,16,17,22) |
| | | Boundary Segment D: Northern Boundary, Black Rock Rd (points 17 + 18)) |

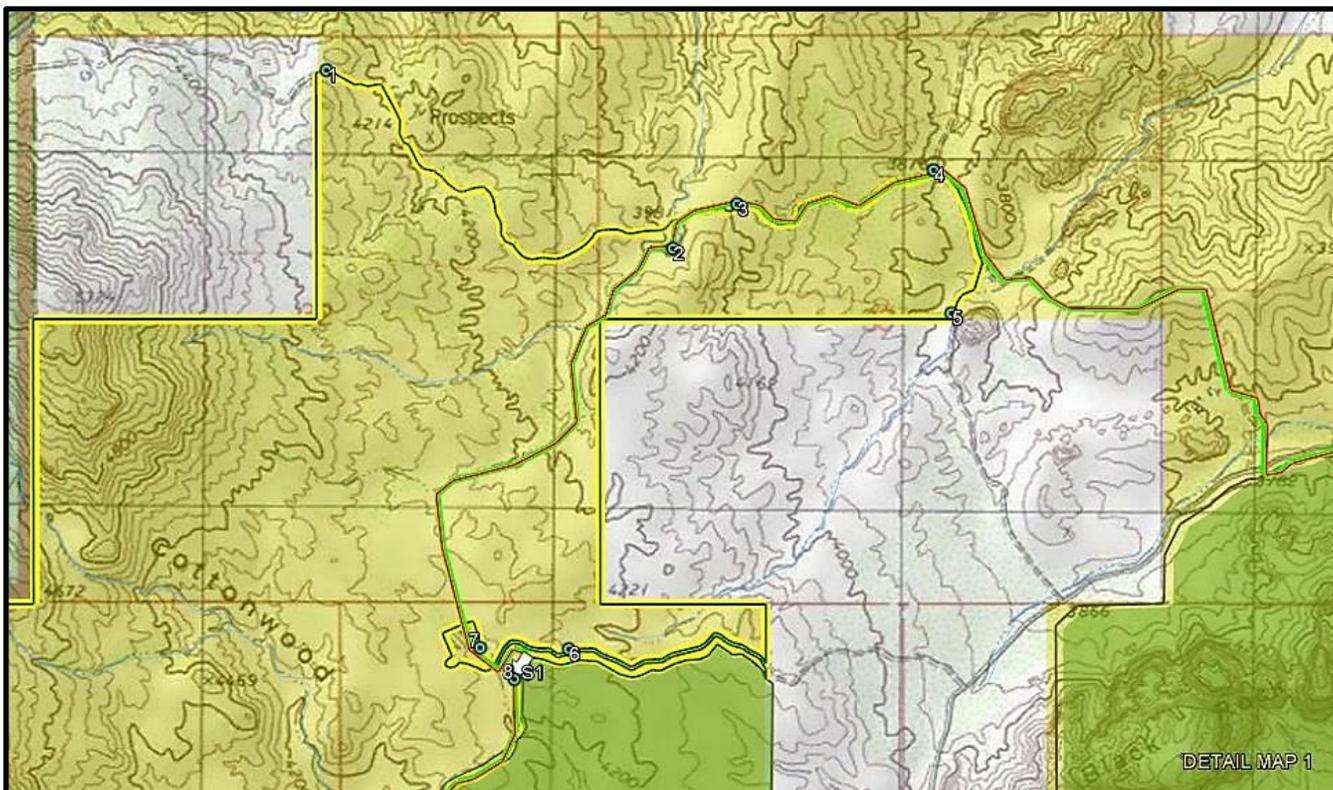
| | |
|--|--|
| | Scenic Photos shown in report text |
| | Photo Data Points (Numbers shown on Detail Maps) |
| | Wilderness Inventory Roads |
| | Primitive Routes or Vehicle Ways |
| | Grand Enchantment Trail |
| | Creeks, Canyons and Washes |
| | Springs |



Map of Proposed LWC, showing boundary description segments and detail map keys. Background map OSM Shaded Relief. 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.

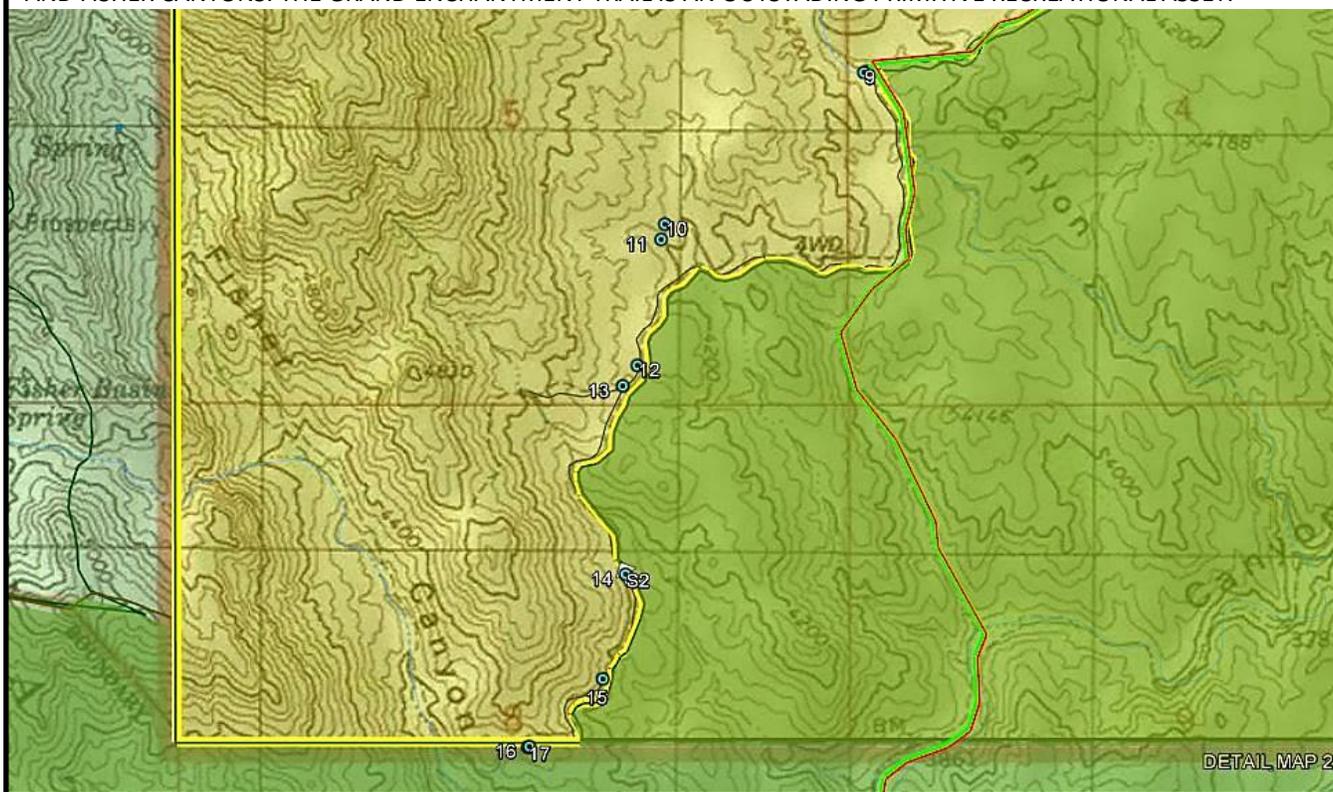


Detail Maps with Photopoint Locations: (Refer to Overview Map Legend for Symbology; Scale varies)

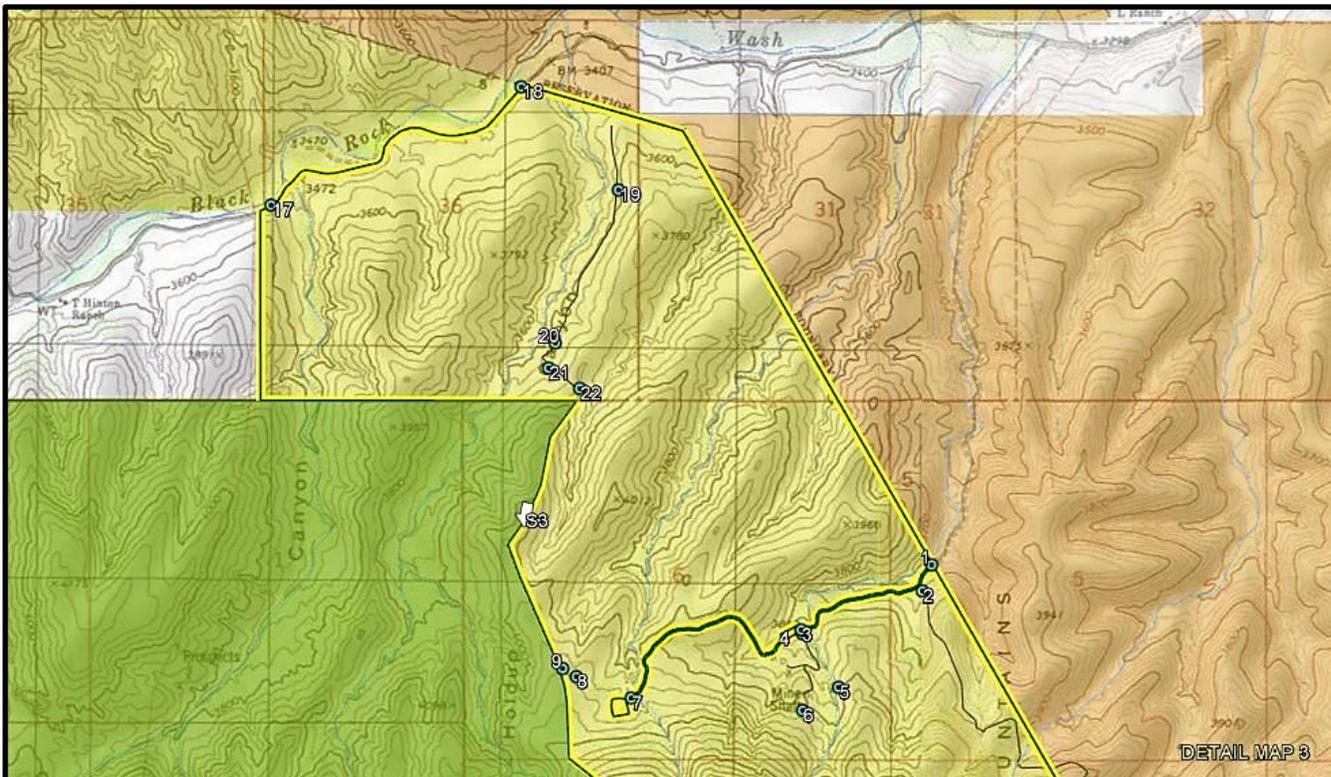


DETAIL MAP 1: COTTONWOOD CANYON UNIT NORTHERN HALF, SHOWING POINTS 4 AND 5 ALONG GOODWIN WASH ROAD; 5 AT A RANCH GATE, 2 AND 8 ON THE GRAND ENCHANTMENT TRAIL; AND 6 AND 7 ALONG A RANCH ROAD AND CORRAL.

DETAIL MAP 2: COTTONWOOD CANYON SOUTHERN HALF, SHOWING POINTS 9 – 17 ALONG THE RECLAIMED VEHICLE WAY THAT WAS USED AS THE WILDERNESS BOUNDARY. OUTSTANDING SOLITUDE CAN BE FOUND IN COTTONWOOD AND FISHER CANYONS. THE GRAND ENCHANTMENT TRAIL IS AN OUTSTADING PRIMITIVE RECREATIONAL ASSET.

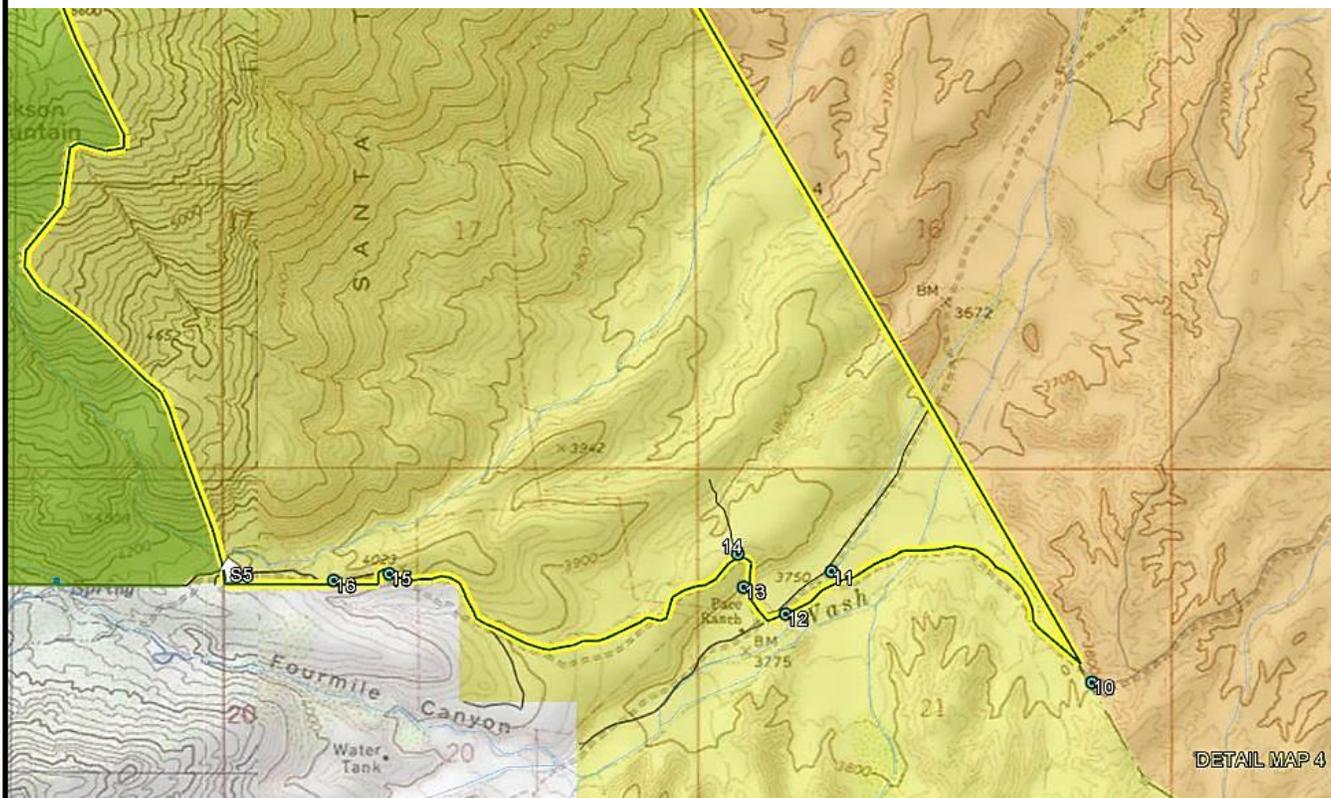


Detail Maps with Photopoint Locations: (Refer to Overview Map Legend for Symbology; Scale varies)



DETAIL MAP 3: JACKSON MOUNTAIN UNIT NORTHERN HALF, SHOWING THE CHERRYSTEM TO SPENAZUMA TANK AT POINT 7; RECLAIMED MINING IMPACTS AT POINTS 2, 4, 5, AND 6; MINIMALLY OFFENSIVE RANCH IMPACTS AT POINTS 8, 9, S3, 20, 21, AND 22; AND THE UNIMPACTED CONTIGUOUS BOUNDARY WITH WILDERNESS.

DETAIL MAP 4: JACKSON MOUNTAIN UNIT SOUTHERN HALF, SHOWING ET RANCH ROAD; SOME VEHICLE WAYS AT POINTS 14, 15, 16; AND THE NATURAL LANDSCAPE CONTIGUOUS WITH THE NORTH SANTA TERESA WILDERNESS.



Narrative Description of the Proposed LWC Boundary & Vehicle Routes

COTTONWOOD CANYON UNIT DESCRIPTION

Segment A: Northern Boundary

SEE DETAIL MAP 1

General Description: The northern proposed LWC unit boundary is Goodwin Wash Road, which is a maintained wilderness inventory road seen in point 1 & 3.

Boundary Adjustments: Point 3 shows an old dilapidated corral to the left of Goodwin Wash Road that is excluded from the proposed LWC unit.

Cherrystems: There are no cherrystems in this segment.

Ways: One unmaintained trail enters the unit in this segment:

-Point 2 was taken looking up the Grand Enchantment trail in a dry wash near where the trail enters the proposed LWC unit.

Associated Human Impacts: All major human impacts (corral) along the proposed LWC boundary have been excluded.

Segment B: Eastern Boundary

SEE DETAIL MAPS 1 & 2

General Description: The eastern LWC unit boundary follows a wilderness inventory road and the BLM property line. BLM Route 284 serves as the proposed LWC unit boundary from point 4 to point 5 where it enters private land and is gated. At point 5, the unit boundary becomes the BLM property line with private property. The BLM property line is the unit boundary from point 5 until it intercepts the North Santa Teresa Wilderness boundary, at which point the Wilderness boundary becomes the LWC unit boundary.

Boundary Adjustments: The boundary is adjusted to exclude ranch infrastructure, discussed below.

Cherrystems: There is one cherrystemmed road along the eastern proposed LWC boundary.

-Point 6 shows a photograph of the maintained cherrystem road that leads to a corral (point 7) and water tanks that are also excluded from the proposed LWC.

Ways:

One way is documented in this unit. This route was used as the boundary for the North Santa Teresa Wilderness when that area was designated. It seems that when the wilderness was inventoried by BLM decades ago, the route met the criteria for a wilderness inventory road. We have determined that this route was probably built to develop dirt tanks and a water catchment. Today, however, this route is no longer a road. We are arguing, and our data clearly supports, that this route is now very much a primitive, unmaintained way; and it is only passable by ATV's. Because this way cannot be considered a wilderness inventory road, it clearly is not a suitable wilderness boundary, and our proposed LWC unit is clearly contiguous with the existing wilderness area for the full length of this way. This route is now used as a portion of the Grand Enchantment Trail, which is a long-distance backpacking route that passes through this area, and we refer to this route as the Grand Enchantment Trail. Points 8 through

15 clearly show the current condition of this way, which is densely revegetated by perennial native shrubs, grasses, and cacti. The route has high value as a primitive recreational trail, and it makes for an excellent hike. Furthermore, the Black Rock Ranch, which owns the property adjacent to the Cottonwood Canyon Proposed LWC unit, has closed off public access to this reclaimed way. Point 17 shows an image of the same route within the Wilderness. As the photo documents, the trail is in a similar condition within the Wilderness as it is within the proposed LWC unit. Point 13 was taken looking up an old way that leads to an earthen water tank. As the photo illustrates, this way has grown in with vegetation and been reclaimed by nature.

Associated Human Impacts:

-Points 10 and 11 document a water tank, a small rock dam, and a pipeline, which are the main human impacts within the proposed LWC unit. These impacts are considered to be substantially unnoticeable to the average visitor due to the fact that they are located in the bottom of a drainage. The surrounding ridges, vegetative screening, rock outcrops, and adjacent small hills shield these impacts from sight from most locations within the rest of the LWC unit. Spring developments such as this are not inconsistent with wilderness character.

Segment C: Southern Boundary

SEE DETAIL MAP 2

General Description: The entire southern boundary of the proposed LWC unit is the North Santa Teresa Wilderness boundary. Point 16 was taken looking west along this boundary. The photograph features the Wilderness/LWC unit boundary, following a barbed wire fence. The non-wilderness side of the fence is every bit as wild as the wilderness side.

Boundary Adjustments: There are no boundary adjustments along this segment.

Cherrystems: There are no cherrystems along the southern boundary.

Ways: There are no ways that enter the proposed LWC unit through this boundary.

Associated Human Impacts: There are no major human impacts along this boundary segment.

Segment D: Western Boundary

SEE DETAIL MAPS 1 & 2

General Description: The western proposed LWC unit boundary is the Wilderness boundary for just under two-tenths of a mile. The remainder of the western boundary is the BLM property line with the Coronado National Forest and private land.

Boundary Adjustments: There are no boundary adjustments along this segment.

Cherrystems: There are no cherrystem roads along the western unit boundary.

Ways: No ways enter the proposed LWC unit along this boundary.

Associated Human Impacts: There are no human impacts along the western proposed LWC unit boundary.

JACKSON MOUNTAIN UNIT DESCRIPTION

Segment A: Eastern Boundary

SEE UNIT OVERVIEW MAP AND DETAIL MAPS 3 & 4

General Description: The entire eastern proposed LWC unit boundary is the BLM property line with the San Carlos Indian Reservation.

Boundary Adjustments: One cherrystem affects this boundary.

Cherrystems: There is one cherrystemmed road along the eastern LWC unit boundary.

-Point 1 displays an image of a cherrystem wilderness inventory road. This road is gated and closed to public use at this points and where it turns off of Black Rock Road as well. We estimate that it has received maintenance within the last three to five years. This road leads to a well and water tank at Swamp Spring corral (point 3). Point 7 was taken farther west along the cherrystem near its end at a camouflage-painted water tank that is also excluded from the proposed LWC unit.

Ways:

-Point 2 was taken looking up an old primitive route that has been reclaimed by nature.

-Point 4 depicts an old way that leads to an abandoned mine (Mt. Jackson mine). As points 5 & 6 illustrate, this abandoned mine is naturalizing and is substantially unnoticeable from the immediate surrounding hillsides. Very few artifacts of this era remain.

Associated Human Impacts:

-Point 8 depicts a pipeline leading down the ridge from the water tank seen in point 7. This pipe is not visible from most locations unless you are right next to it. The pipeline runs through the photo in point 9, and is not visible at all because of vegetative screening.

Segment B: Southern Boundary

SEE DETAIL MAP 4

General Description: The eastern portion of the southern unit boundary is ET Ranch Road, a maintained wilderness inventory road seen in points 10 & 12 that leads to private land. The more westerly section of the southern LWC boundary is a primitive route shown in point 13. This way leads to a functional water tank (point 15), and is used as the proposed unit boundary due to the impact of this vehicle route. As point 13 shows, this primitive route has a substantially noticeable impact on the naturalness of the area, and was thus used as the southern unit boundary. The way ends at point 15, turning into a trail (point 16) to the Wilderness boundary. From point 15, the proposed unit boundary becomes the BLM property line with a private parcel. The property line is marked by a fence line that parallels the trail seen in point 16. The BLM property line is the proposed unit boundary until it intercepts the Wilderness boundary.

Boundary Adjustments: The tank at point 15 is excluded

Ways:

-Point 11 displays a supposed route that the BLM identified in their route inventory. Point 11 documents that this is not a vehicular route, but instead simply a natural wash. At the time of our inventory, there was no evidence of vehicular use anywhere within this wash.

-Point 14 shows a primitive route that receives very little vehicular use (ATVs) and is in the process of becoming revegetated. As the photo documents, this way minimally affects the naturalness in the area.

Associated Human Impacts: The tank at point 15 is the only human impact.

Segment C: Western Boundary SEE UNIT OVERVIEW MAP AND DETAIL MAPS 3 & 4

General Description: The western LWC unit boundary is mostly the North Santa Teresa Wilderness boundary, which mostly follows a ridgeline over Jackson Mountain. The northern portion of the western unit boundary is the BLM property line with a private parcel of land.

Boundary Adjustments: There are no boundary adjustments in this segment.

Cherry systems: There are no cherry systems that enter the unit along this boundary segment.

Ways: No primitive routes enter the proposed LWC along this segment.

Associated Human Impacts: The only notable human impacts along the western boundary are the 2" black plastic water line that originates at the tank at point 17, and a small water trough at point 22. These impacts are minimal and not inconsistent with wilderness management.

Segment D: Northern Boundary SEE DETAIL MAP 3

General Description: The northern proposed LWC unit boundary is formed by Indian Route 20, a wilderness inventory road. Point 17 was taken near the northwestern unit corner where the road accesses private land at a locked gate. Point 18 displays another image of this Route 20 farther to the east. From point 18, the BLM property line with the San Carlos Indian Reservation serves as the proposed LWC unit boundary.

Boundary Adjustments: There are no boundary line adjustments along the northern unit boundary.

Cherry systems: There are no cherry stemmed roads along this boundary segment.

Ways:

-Point 19 displays an image of an old primitive route that has been reclaimed by nature and is now just a trail. Point 20 further illustrates the extent to which this old way has been reclaimed by nature. With some work and coordination, this trail could provide excellent access to the North Santa Teresa Wilderness. It was probably built to bring in Spenazuma trough.

Associated Human Impacts:

-Point 22 depicts a livestock water tank called Spenazuma trough that no longer has any vehicular access. Point 21 shows a waterline leading downhill from the water tank. As points 21 & 22 document, these human impacts are minimal, are screened by surrounding vegetation, and do not substantially impact the naturalness of the LWC unit.

That completes the narrative description of the unit boundary, vehicle routes, and human impacts.

Section 4: Photopoint Data

Cottonwood Canyon Unit Data Points

| Attributes | |
|---------------|---|
| Point | 1 |
| Unit name | Cottonwood Canyon |
| Route name | Goodwin Wash Road |
| Construction | Bladed+Cut &Fill |
| Use | 2-WD vehicles |
| Purpose | Private land access, through-road to USFS, recreation, ranching |
| Maintenance | Very recent blade - past year |
| Determination | Road |
| Feature | Typical Condition of Route @ unit boundary |
| Feature notes | Black Rock seen in center of frame, Jackson Mountain behind it. |
| Other notes | BLM Wilderness boundary follows left skyline of Jackson Mountain. |

Point 001



Digitized by USDA Farm Service Agency



N 32° 57' 39.78"
W 110° 12' 54.87"
Photo Direction: 102° ESE
4254 ft
1/30/2016

| Attributes | |
|---------------|----------------------------|
| Point | 2 |
| Unit name | Cottonwood Canyon |
| Route name | Grand Enchantment Trail |
| Construction | No |
| Use | Foot use |
| Purpose | Recreation |
| Maintenance | N/A |
| Determination | Trail |
| Feature | Typical Condition of Route |
| Feature notes | |
| Other notes | |

Point 002



Digitized by USDA Farm Service Agency



N 32° 57' 23.35"
W 110° 12' 16.75"
Photo Direction: 261° W
3985 ft
1/30/2016

| Attributes | |
|---------------|---|
| Point | 3 |
| Unit name | Cottonwood Canyon |
| Route name | Goodwin Wash Road |
| Construction | Bladed & Cut and Fill |
| Use | 2-WD vehicles |
| Purpose | Multiple uses |
| Maintenance | Very recent blade - past year |
| Determination | Road |
| Feature | Typical Condition of Route & dilapidated corral |
| Feature notes | Equipment appears to be out of order and abandoned- minimally affects naturalness |
| Other notes | Unit Boundary |

Point 003



Digitized by USDA Farm Service Agency



N 32° 57' 27.43"
W 110° 12' 09.68"
Photo Direction: 241° WSW
3987 ft
1/30/2016

| Attributes | |
|---------------|--|
| Point | 4 |
| Unit name | Cottonwood Canyon |
| Route name | BLM Route 284 (left) & Goodwin Wash Rd (right) |
| Construction | Bladed & Cut and Fill |
| Use | 4-WD Trucks |
| Purpose | Private land access |
| Maintenance | Very recent blade - past year |
| Determination | Road |
| Feature | Junction of Routes/Ways |
| Feature notes | Unit corner |
| Other notes | Unit Boundary |

Point 004



| Attributes | |
|---------------|---|
| Point | 5 |
| Unit name | Cottonwood Canyon |
| Route name | End of BLM Route 284 |
| Construction | Bladed |
| Use | None |
| Purpose | Private land access |
| Maintenance | Likely to be maintained |
| Determination | Way |
| Feature | Closure point |
| Feature notes | Grand Enchantment Trail passes near here. |
| Other notes | |

Point 005



| Attributes | |
|---------------|--------------------------------------|
| Point | 6 |
| Unit name | Cottonwood Canyon |
| Route name | Not Named |
| Construction | Bladed |
| Use | 2-WD vehicles |
| Purpose | Corral & water tank |
| Maintenance | Semi-recent evidence - 1-3 years ago |
| Determination | Road |
| Feature | Typical Condition of Route/Way |
| Feature notes | Exclusive use by rancher |
| Other notes | Cherrystem |

Point 006



| Attributes | |
|---------------|--|
| Point | 7 |
| Unit name | Cottonwood Canyon |
| Route name | Not Named |
| Construction | Bladed |
| Use | 4-WD Trucks |
| Purpose | Ranching |
| Maintenance | Semi-recent evidence - 1-3 years ago |
| Determination | Road |
| Feature | Corral |
| Feature notes | |
| Other notes | Cherrystem; this impact is excluded from LWC |

Point 007



| Attributes | |
|---------------|---------------------------------------|
| Point | 8 |
| Unit name | Cottonwood Canyon |
| Route name | Grand Enchantment Trail |
| Construction | Bladed & Cut and Fill |
| Use | Foot use |
| Purpose | Recreation |
| Maintenance | None |
| Determination | Trail |
| Feature | Revegetating |
| Feature notes | Feature minimally affects naturalness |
| Other notes | Wilderness to left, LWC to right |

Point 008



| Attributes | |
|---------------|--|
| Point | 9 |
| Unit name | Cottonwood Canyon |
| Route name | Grand Enchantment Trail |
| Construction | Bladed & Cut and Fill |
| Use | Foot use. Signs of ATV use (once a year) up to the crest beyond Hush Storage Tank. |
| Purpose | Historically used for ranching, but now reclaimed |
| Maintenance | None |
| Determination | Trail |
| Feature | Stream crossing and western peaks |
| Feature notes | Peaks are in proposed LWC |

Point 009



| Attributes | |
|---------------|---|
| Point | 10 |
| Unit name | Cottonwood Canyon |
| Route name | N/A |
| Construction | N/A |
| Use | N/A |
| Purpose | Wildlife Water Catchment |
| Maintenance | N/A |
| Determination | N/A |
| Feature | Wildlife Watering tank |
| Feature notes | Feature minimally affects naturalness |
| Other notes | Substantially unnoticeable because it is tucked in a drainage & largely hidden from view. |

Point 010




N 32° 56' 19.95"
 W 110° 13' 10.16"
 Photo Direction: 133° SE
 4236 ft
 1/30/2016

| Attributes | |
|---------------|--|
| Point | 11 |
| Unit name | Cottonwood Canyon |
| Route name | N/A |
| Construction | Hand labor |
| Use | N/A |
| Purpose | Human Impact Feature |
| Maintenance | None observed |
| Determination | N/A |
| Feature | Water collection installation |
| Feature notes | Feature minimally affects naturalness behind its immediate impact. |
| Other notes | Pipeline could be painted to match rocks. Existing vegetation conceals pipe. |

Point 011




N 32° 56' 18.76"
 W 110° 13' 10.50"
 Photo Direction: 293° WNW
 4168 ft
 1/30/2016

| Attributes | |
|---------------|---------------------------------------|
| Point | 12 |
| Unit name | Cottonwood Canyon |
| Route name | Grand Enchantment Trail |
| Construction | Bladed & Cut and Fill |
| Use | Foot use |
| Purpose | None apparent |
| Maintenance | None |
| Determination | Trail |
| Feature | Revegetated |
| Feature notes | Feature minimally affects naturalness |
| Other notes | Roadbed is gone. |

Point 012




N 32° 56' 09.00"
 W 110° 13' 12.70"
 Photo Direction: 185° S
 4201 ft
 1/30/2016

| Attributes | |
|---------------|---------------------------------------|
| Point | 13 |
| Unit name | Cottonwood Canyon |
| Route name | Not Named |
| Construction | Bladed |
| Use | None |
| Purpose | Earthen-bermed tank |
| Maintenance | None |
| Determination | Reclaimed |
| Feature | |
| Feature notes | Feature minimally affects naturalness |
| Other notes | |

Point 013




N 32° 56' 07.40"
W 110° 13' 14.04"
Photo Direction: 261° W
4246 ft
1/30/2016

| Attributes | |
|---------------|---|
| Point | 14 |
| Unit name | Cottonwood Canyon |
| Route name | Grand Enchantment Trail |
| Construction | Bladed & Cut and Fill |
| Use | Foot use |
| Purpose | Recreation |
| Maintenance | None |
| Determination | Trail |
| Feature | Typical Condition of Route |
| Feature notes | LWC to the left, BLM Wilderness to the right. |
| Other notes | |

Point 014




N 32° 55' 52.80"
W 110° 13' 13.80"
Photo Direction: 333° NNW
4189 ft
1/30/2016

| Attributes | |
|---------------|---|
| Point | 15 |
| Unit name | Cottonwood Canyon |
| Route name | Grand Enchantment Trail |
| Construction | Bladed & Cut and Fill |
| Use | Foot use |
| Purpose | Recreation |
| Maintenance | None |
| Determination | Trail |
| Feature | Typical Condition of Route |
| Feature notes | LWC to the left, BLM Wilderness to the right. |
| Other notes | Old road cut has naturalized & is substantially unnoticeable. |

Point 015




N 32° 55' 44.68"
W 110° 13' 15.89"
Photo Direction: 12° NNE
4223 ft
1/30/2016

Santa Teresa Wilderness Contiguous Proposed LWC

| Attributes | |
|---------------|---|
| Point | 16 |
| Unit name | Cottonwood Canyon |
| Route name | N/A |
| Construction | Fence divides jurisdiction |
| Use | N/A |
| Purpose | Scenic/Landscape |
| Maintenance | N/A |
| Determination | N/A |
| Feature | USFS & BLM boundary |
| Feature notes | Fence cuts up hillside and crosses ridge at center of frame |
| Other notes | USFS Wilderness to the left, BLM proposed LWC to the right |

Point 016



| Attributes | |
|---------------|--|
| Point | 17 |
| Unit name | Cottonwood Canyon |
| Route name | Grand Enchantment Trail |
| Construction | Bladed & Cut and Fill |
| Use | Foot use |
| Purpose | Recreation |
| Maintenance | None |
| Determination | Trail |
| Feature | Revegetated way, now trail, going off into the wilderness. |
| Feature notes | In wilderness |
| Other notes | |

Point 017



Section 4: Photopoint Data

Jackson Mountain Unit Data Points

| Attributes | |
|---------------|---|
| Point | 1 |
| Unit name | North Santa Teresa Wilderness Contiguous-Jackson Mountain |
| Route name | Not Named |
| Construction | Bladed & Cut and Fill |
| Use | 4-WD Trucks |
| Purpose | Well/Water tanks |
| Maintenance | Old evidence - 3-5 years ago |
| Determination | Road |
| Feature | Closure point |
| Feature notes | |
| Other notes | Cherrystem |

Point 001




N 32° 56' 27.79"
W 110° 07' 28.13"
Photo Direction: 217° SW
3654 ft
1/29/2016

| Attributes | |
|---------------|---|
| Point | 2 |
| Unit name | North Santa Teresa Wilderness Contiguous-Jackson Mountain |
| Route name | Not named |
| Construction | Bladed and Cut & Fill |
| Use | Cows |
| Purpose | None apparent |
| Maintenance | None |
| Determination | Reclaimed |
| Feature | Revegetated |
| Feature notes | Feature minimally affects naturalness |
| Other notes | |

Point 002




N 32° 56' 24.17"
W 110° 07' 29.66"
Photo Direction: 130° SE
3639 ft

| Attributes | |
|---------------|---|
| Point | 3 |
| Unit name | North Santa Teresa Wilderness Contiguous-Jackson Mountain |
| Route name | Not Named |
| Construction | Bladed & Cut and Fill |
| Use | 4-WD Trucks |
| Purpose | Well/Water tanks |
| Maintenance | Old evidence - 3-5 years ago |
| Determination | Road |
| Feature | Swamp Spring corral |
| Feature notes | |
| Other notes | Cherrystem & impact excluded. |

Point 003




N 32° 56' 18.79"
W 110° 07' 49.68"
Photo Direction: 254° WSW
3794 ft
1/29/2016

| Attributes | |
|---------------|---|
| Point | 4 |
| Unit name | North Santa Teresa Wilderness Contiguous-Jackson Mountain |
| Route name | Not Named |
| Construction | Bladed |
| Use | None |
| Purpose | Old access to Mt. Jackson mine |
| Maintenance | None |
| Determination | Reclaimed |
| Feature | Revegetated |
| Feature notes | Feature minimally affects naturalness |
| Other notes | Old access to the Mt. Jackson mine |

Point 004




N 32° 56' 18.26"
W 110° 07' 49.47"
Photo Direction: 157° SSE
3809 ft
1/29/2016

| Attributes | |
|---------------|---|
| Point | 5 |
| Unit name | North Santa Teresa Wilderness Contiguous-Jackson Mountain |
| Route name | N/A |
| Construction | N/A |
| Use | N/A |
| Purpose | Historic Prospecting |
| Maintenance | N/A |
| Determination | Reclaimed |
| Feature | Mt. Jackson mine |
| Feature notes | Old mine impacts are substantially unnoticeable & in the process of naturalizing. |
| Other notes | |

Point 005




N 32° 56' 10.83"
W 110° 07' 43.49"
Photo Direction: 260° W
3865 ft
1/29/2016

| Attributes | |
|---------------|---|
| Point | 6 |
| Unit name | North Santa Teresa Wilderness Contiguous-Jackson Mountain |
| Route name | N/A |
| Construction | N/A |
| Use | N/A |
| Purpose | Historic Prospecting |
| Maintenance | N/A |
| Determination | Abandoned mine. |
| Feature | Mt. Jackson mine |
| Feature notes | Visually small prospecting impact. Feature minimally affects naturalness. |
| Other notes | Included in LWC unit. |

Point 006




N 32° 56' 07.65"
W 110° 07' 49.42"
Photo Direction: 17° NNE
4033 ft
1/29/2016

| Attributes | |
|---------------|---|
| Point | 7 |
| Unit name | North Santa Teresa Wilderness Contiguous-Jackson Mountain |
| Route name | Not Named |
| Construction | Bladed & Cut and Fill |
| Use | 4-WD Trucks |
| Purpose | Well/Water tanks |
| Maintenance | Old evidence - 3-5 years ago |
| Determination | Road |
| Feature | Livestock Water Tank |
| Feature notes | Tank minimally affects naturalness, it is painted camouflage. |
| Other notes | Cherrystem |

Point 007




N 32° 56' 09.36"
W 110° 08' 17.73"
Photo Direction: 265° W
4054 ft
1/29/2016

| Attributes | |
|---------------|--|
| Point | 8 |
| Unit name | North Santa Teresa Wilderness Contiguous-Jackson Mountain |
| Route name | N/A |
| Construction | Hand labor |
| Use | None |
| Purpose | Waterline |
| Maintenance | N/A |
| Determination | Not a route or way |
| Feature | 2" plastic line |
| Feature notes | Feature minimally affects naturalness |
| Other notes | Wilderness boundary follows ridge on right side of Jackson Mountain. Camouflage tank is in frame, but hardly visible |

Point 008




N 32° 56' 12.31"
W 110° 08' 26.78"
Photo Direction: 142° SE
4071 ft
1/29/2016

| Attributes | |
|---------------|---|
| Point | 9 |
| Unit name | North Santa Teresa Wilderness Contiguous-Jackson Mountain |
| Route name | N/A |
| Construction | N/A |
| Use | N/A |
| Purpose | Scenic/Landscape |
| Maintenance | N/A |
| Determination | N/A |
| Feature | Agave garden with view of northern Santa Teresa Mountains |
| Feature notes | Pipeline does not substantially affect naturalness. |
| Other notes | Wilderness boundary follows grassy ridge into the distance. |

Point 009




N 32° 56' 13.44"
W 110° 08' 29.04"
Photo Direction: 318° NW
4076 ft
1/29/2016

| Attributes | |
|---------------|---|
| Point | 10 |
| Unit name | North Santa Teresa Wilderness Contiguous-Jackson Mountain |
| Route name | ET Ranch Road |
| Construction | Bladed |
| Use | 2-WD Vehicles |
| Purpose | Private land access |
| Maintenance | Very recent blade - past year |
| Determination | Road |
| Feature | Gate at unit corner |
| Feature notes | |
| Other notes | Unit Boundary |

Point 010




N 32° 53' 52.61"
W 110° 05' 40.60"
Photo Direction: 301° WNW
3755 ft
1/29/2016

| Attributes | |
|---------------|---|
| Point | 11 |
| Unit name | North Santa Teresa Wilderness Contiguous-Jackson Mountain |
| Route name | Not Named |
| Construction | No evidence |
| Use | None |
| Purpose | None apparent |
| Maintenance | None |
| Determination | Natural Wash |
| Feature | Natural Wash |
| Feature notes | No vehicular use |
| Other notes | |

Point 011




N 32° 54' 04.82"
W 110° 06' 14.70"
Photo Direction: 49° NE
3742 ft
1/29/2016

Santa Teresa Wilderness Contiguous Proposed LWC

| Attributes | |
|---------------|---|
| Point | 12 |
| Unit name | North Santa Teresa Wilderness Contiguous-Jackson Mountain |
| Route name | ET Ranch Road |
| Construction | Bladed |
| Use | 2-WD Vehicles |
| Purpose | Private land access |
| Maintenance | Very recent blade - past year |
| Determination | Road |
| Feature | Typical Condition of Route/Way |
| Feature notes | Ranch seen ahead is out of LWC unit. |
| Other notes | Unit Boundary |

Point 012




| Attributes | |
|---------------|---|
| Point | 13 |
| Unit name | North Santa Teresa Wilderness Contiguous-Jackson Mountain |
| Route name | Not Named |
| Construction | Bladed & Cut and Fill |
| Use | ATV and/or Dirtbike |
| Purpose | Well/Water tanks |
| Maintenance | None |
| Determination | Way |
| Feature | Major impact of road |
| Feature notes | Worst section of route |
| Other notes | Unit Boundary |

Point 013




| Attributes | |
|---------------|---|
| Point | 14 |
| Unit name | North Santa Teresa Wilderness Contiguous-Jackson Mountain |
| Route name | |
| Construction | No evidence |
| Use | ATV and/or Dirtbike |
| Purpose | |
| Maintenance | None |
| Determination | Way |
| Feature | Low use |
| Feature notes | Feature minimally affects naturalness |
| Other notes | Revegetating |

Point 014




| Attributes | |
|---------------|--|
| Point | 15 |
| Unit name | North Santa Teresa Wilderness Contiguous-Jackson Mountain |
| Route name | Not Named |
| Construction | Bladed & Cut and Fill |
| Use | Off Road Vehicles |
| Purpose | Well/Water tanks |
| Maintenance | None |
| Determination | Way |
| Feature | Livestock water tank (tank is green and only a few feet tall). |
| Feature notes | Feature minimally affects naturalness. BLM wilderness line cuts across mountain slope in background. |
| Other notes | Unit Boundary |

Point 015

| Attributes | |
|---------------|---|
| Point | 16 |
| Unit name | North Santa Teresa Wilderness Contiguous-Jackson Mountain |
| Route name | Not Named |
| Construction | No evidence |
| Use | Equestrian |
| Purpose | None apparent |
| Maintenance | None |
| Determination | Reclaimed/Trail |
| Feature | Revegetated |
| Feature notes | Feature minimally affects naturalness |
| Other notes | Route ends at water tank and LWC boundary follows fence line from there on. |

Point 016

| Attributes | |
|---------------|---|
| Point | 17 |
| Unit name | North Santa Teresa Wilderness Contiguous-Jackson Mountain |
| Route name | Route 20 |
| Construction | Bladed & Cut and Fill |
| Use | 2-WD Vehicles |
| Purpose | Private land access |
| Maintenance | Very recent blade - past year |
| Determination | Road |
| Feature | Closure point |
| Feature notes | |
| Other notes | Unit Boundary |

Point 017




N 32° 57' 17.55"
 W 110° 09' 17.21"
 Photo Direction: 228° SW
 3473 ft
 1/29/2016

| Attributes | |
|---------------|---|
| Point | 18 |
| Unit name | North Santa Teresa Wilderness Contiguous-Jackson Mountain |
| Route name | Route 20 |
| Construction | Bladed & Cut and Fill |
| Use | 2-WD Vehicles |
| Purpose | Private land access |
| Maintenance | Very recent blade - past year |
| Determination | Road |
| Feature | Typical Condition of Route/Way |
| Feature notes | |
| Other notes | Unit Boundary |

Point 018




N 32° 57' 33.92"
 W 110° 08' 35.91"
 Photo Direction: 226° SW
 3396 ft
 1/29/2016

| Attributes | |
|---------------|--|
| Point | 19 |
| Unit name | North Santa Teresa Wilderness Contiguous-Jackson Mountain |
| Route name | Not Named |
| Construction | Probably only bladed once |
| Use | Equestrian/cattle |
| Purpose | Unknown |
| Maintenance | None |
| Determination | Trail |
| Feature | Typical Condition of Route |
| Feature notes | Cowboy trail. Would make excellent access into wilderness. |
| Other notes | Running stream below adds outstanding experience. |

Point 019




N 32° 57' 19.67"
 W 110° 08' 19.83"
 Photo Direction: 191° S
 3524 ft
 1/29/2016

Santa Teresa Wilderness Contiguous Proposed LWC

| Attributes | |
|---------------|---|
| Point | 20 |
| Unit name | North Santa Teresa Wilderness Contiguous-Jackson Mountain |
| Route name | Not Named |
| Construction | Probably only bladed once |
| Use | Cattle |
| Purpose | Unknown |
| Maintenance | None |
| Determination | Reclaimed |
| Feature | Typical Condition of Route |
| Feature notes | Feature minimally affects naturalness |
| Other notes | Nice trail bench |

Point 020




N 32° 56' 58.49"
W 110° 08' 30.29"
Photo Direction: 19° NNE
3619 ft
1/29/2016

| Attributes | |
|---------------|---|
| Point | 21 |
| Unit name | North Santa Teresa Wilderness Contiguous-Jackson Mountain |
| Route name | N/A |
| Construction | No evidence |
| Use | Cattle |
| Purpose | N/A |
| Maintenance | None |
| Determination | Route is reclaimed |
| Feature | Waterline and reclaimed way |
| Feature notes | |
| Other notes | 2" galvy pipe |

Point 021




N 32° 56' 55.02"
W 110° 08' 31.38"
Photo Direction: 126° SE
3634 ft
1/29/2016

| Attributes | |
|---------------|---|
| Point | 22 |
| Unit name | North Santa Teresa Wilderness Contiguous-Jackson Mountain |
| Route name | N/A |
| Construction | Hand labor |
| Use | Equestrian/cattle |
| Purpose | N/A |
| Maintenance | N/A |
| Determination | N/A |
| Feature | Spnazuma Trough |
| Feature notes | Feature minimally affects naturalness |
| Other notes | N/A |

Point 022




N 32° 56' 52.19"
W 110° 08' 26.22"
Photo Direction: 186° S
3738 ft
1/29/2016