# TURTLE MOUNTAIN

# LANDS WITH WILDERNESS CHARACTERISTICS

PUBLIC LANDS IN AND AROUND
THE BLM'S GILA BOX RIPARIAN NATIONAL CONSERVATION AREA
IN THE EASTERN GILA MOUNTAINS, ARIZONA



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



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ARIZONA WILDERNESS COALITION

## **TABLE OF CONTENTS**

PREFACE: This Proposal was developed according to BLM Manual 6310————————————————————————————————————	-page 3
METHODS: The research approach to developing this citizens' proposal—	-page 5
Section 1: Overview of the Proposed Lands with Wilderness Characteristics	
<ul> <li>Unit Introduction: Overview map showing unit location and boundaries</li> <li>provides a brief description and labels for the units' boundary</li> </ul>	-page 8
· · · · · · · · · · · · · · · · · · ·	
Section 2: Documentation of Wilderness Characteristics	
The proposed LWC meets the minimum size criteria for roadless lands	-page 13
The proposed LWC is affected primarily by the forces of nature—	page 14
The proposed LWC provides outstanding opportunities for solitude and/or primitive and unconfined recreation————————————————————————————————————	-page 16
The proposed LWC has supplemental values that enhance the wilderness experience & deserve protection————————————————————————————————————	-page 18
Conclusion: The proposed area should be managed for protection of wilderness characteristics——————————————————————————————————	-page 24
tion 1: Overview of the Proposed Lands with Wilderness Characteristics  it Introduction: Overview map showing unit location and boundaries page provides a brief description and labels for the units' boundary  vious Wilderness Inventories: Map of former WSA's or inventory unit's page provides comparison between this and past wilderness inventories, and highlights new information provides comparison between this and past wilderness inventories, and highlights new information proposed LWC meets the minimum size criteria for roadless lands page proposed LWC is affected primarily by the forces of nature page proposed LWC provides outstanding opportunities for solitude and/or primitive and unconfined recreation page proposed LWC has supplemental values that enhance the wilderness experience & deserve protection page inclusion: The proposed area should be managed for protection of wilderness characteristics page inclusion: The proposed area should be managed for protection of wilderness characteristics page inclusion 3: Detailed Maps and Description of the Unit Boundary, Roads, Ways and Human Imperview Map with Boundary Segments and Detail Map Keys page that Maps with Photopoint Locations page that Maps with Photopoint Locations page that A: Photopoint Data	-page 25
Section 3: Detailed Maps and Description of the Unit Boundary, Roads, Ways and Hum	an Impacts
Overview Map with Boundary Segments and Detail Map Keys————————————————————————————————————	-page 29
Detail Maps with Photopoint Locations—	-page 30
Narrative Description of the Proposed LWC Boundary and Vehicle Routes—	-page 35
Section 4: Photopoint Data	
Data Tables and Geotagged Photographs to accompany the	
Detailed Boundary & Vehicle Routes Description————————————————————————————————————	-page 42

Cover Photo: From point S17, looking over the pinyon pine-clad slopes of the northern extent of the Pothole Proposed LWC toward Turtle Mountain which looms in the distance. Johnny Creek is an ephemeral stream that runs through the drainage in the foreground, splitting the two proposed units. This immense landscape is brimming with wilderness character. The south facing slopes at photo left were part of the Johnny Creek Proposed Wilderness Study Area.

#### 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.<sup>1</sup>

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.<sup>2</sup>

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

<sup>&</sup>lt;sup>1</sup>Memorandum 2011-154 is available online at:

<sup>&</sup>lt;sup>2</sup> 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".

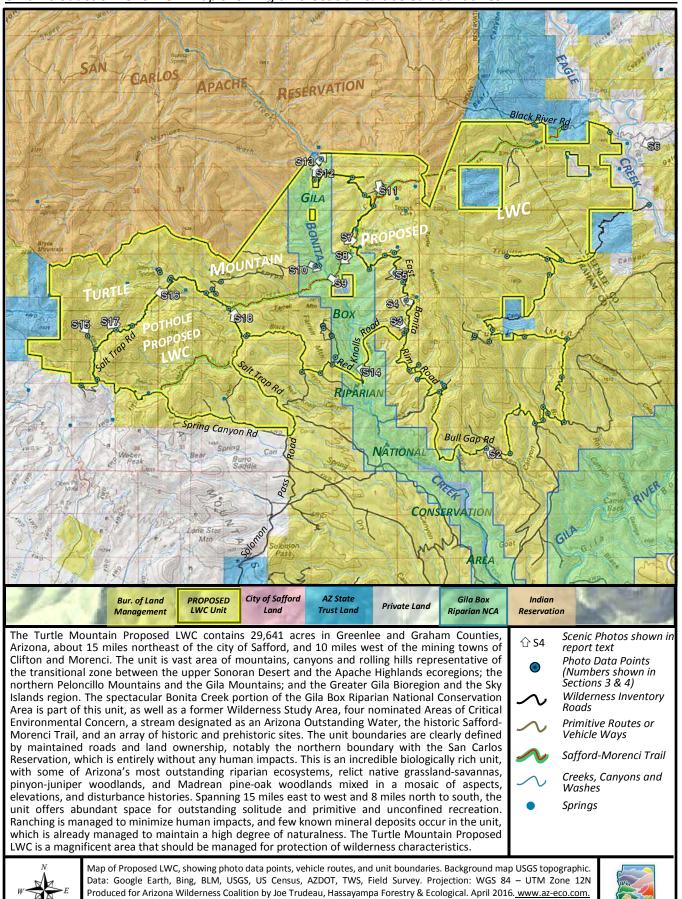
#### Section 1:

# Overview of the Proposed Lands with Wilderness Characteristics

The Turtle Mountain Proposed LWC dominates the view to the north from the Black Hills Scenic Byway, which is the historic vehicle route between Safford and Morenci. The grassy terrain (beyond the Gila Box) at center and right is the bulk of Turtle Mountain, and the more serrated range back and left is the Johnny Creek headwaters area which constitutes the western portion of the unit as well as the Pothole Proposed LWC. This photo highlights the naturalness of the unit with absolutely no human impacts visible. Numerous canyons wind their way into the heart of the LWC offering outstanding opportunities for experiencing solitude in a truly wild and diverse region. Outstanding options for solitude occur in broad canyons, narrow chasms, vast grasslands, untamed wetlands, exposed crags, or boulder outcrops. Or, if one is lucky, among cliff dwellings with what remains of ancient cultures that once called this amazing place home.



Unit Introduction: Overview map showing unit location & labeled boundaries



5 miles



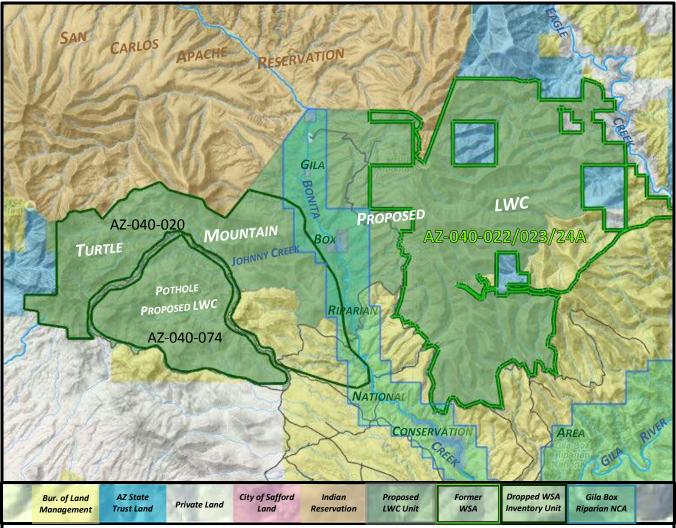


Looking down Sycamore Canyon into the core of the unit, over Bonita Creek and the Brushy Canyon watershed. The distant peaks are those of the Johnny Creek uplands. Rough, rugged, challenging and convoluted terrain draw adventurers in, to find the hidden gems of Bonita Creek, Pueblo Doval, Midnight Canyon, and numerous other unnamed treasures.



In the south-central part of the LWC, Farrell Mountain rises up from Bonita Creek; yet another example of the dramatic scenery in this LWC unit. This cross section of the mountains' guts provides insights into the regions geologic past. Here, layers of basaltic lava overlay explosive ash deposits, subsequently affected by faulting, and then smeared with millennia of alluvial cobble deposits.

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



The Turtle Mountain Proposed LWC contains most of the former Turtle Mountain Wilderness Study Area (WSA; AZ-040-022/023/24A), most of the former Johnny Spring proposed WSA (AZ-040-020), and approximately 3,000 acres of the designated Gila Box RNCA. This area was among the first identified by BLM as having wilderness characteristics in all of southeastern Arizona. In the 1978 "Upper Gila-San Simon Grazing Environmental Statement Final" report, BLM identified the area between Eagle Creek and Bonita creek as having wilderness characteristics, and additionally the agency proposed Johnny Creek (1,840 BLM acres), Bonita Creek (8,760 BLM acres), Eagle Creek (5,520 BLM acres) and the Gila Box (8,040 BLM acres) as Outstanding Natural Areas. As the wilderness review process continued, The BLM decided to pursue wilderness study for the AZ-040-022/023/24A unit and the AZ-040-020 unit. Also, they proposed wilderness study for our Pothole Proposed LWC as well. About the Johnny Spring unit, the BLM said "The unit is in essentially natural condition, despite the scattered presence of range improvements. The extremely rugged topography that characterizes much of the unit's interior provides outstanding opportunities for solitude and primitive and unconfined types of recreation." About the Turtle Mountain unit, the BLM said "the mountainous terrain, river canyons, and side canyons provide a variety of outstanding opportunities for primitive recreation as well as seclusion and isolation". The Johnny Spring unit was subsequently dropped from wilderness study because of roads, range improvements and a number of ways. In that analysis, the routes in Brushy and Johnny Creeks were considered roads, but in this report we document that they are simply faint ATV tracks that ultimately fade into oblivion. The BLM also chose to disgualify the unit for short routes that could have been cherrystemmed. One inspection of the terrain here and it becomes obvious that the vegetation and topography conceal these minor ranching imprints. The Turtle Mountain unit became a WSA, but was eliminated during the EIS process in the mid 1980's because of potential range improvement and livestock waters construction. Our data clearly shows that these impacts are trivial when compared to the scale of the landscape. Furthermore, few of these installations have been maintained and a few rusted tanks and broken pipelines should by no means be reason to not preserve the intact ecosystems and wild landscape of this area. Much of the land between the inventory units was not yet owned by BLM at the time of the intensive inventory, so our report represents the newest and most up-to-date inventory for wilderness characteristics in the area between those initial units. Also, some roads have been maintained that have adjusted the unit boundaries to decrease the extent of the WSA units. The Gila Box RNCA was designated, however the unit does not follow natural contours or impacts to naturalness. Our Turtle Mountain Proposed LWC offers an opportunity to protect the most natural areas bridging all of these previous study units. Our proposed unit boundary contains the core wild area and excludes maintained impacts.



1 mile

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.

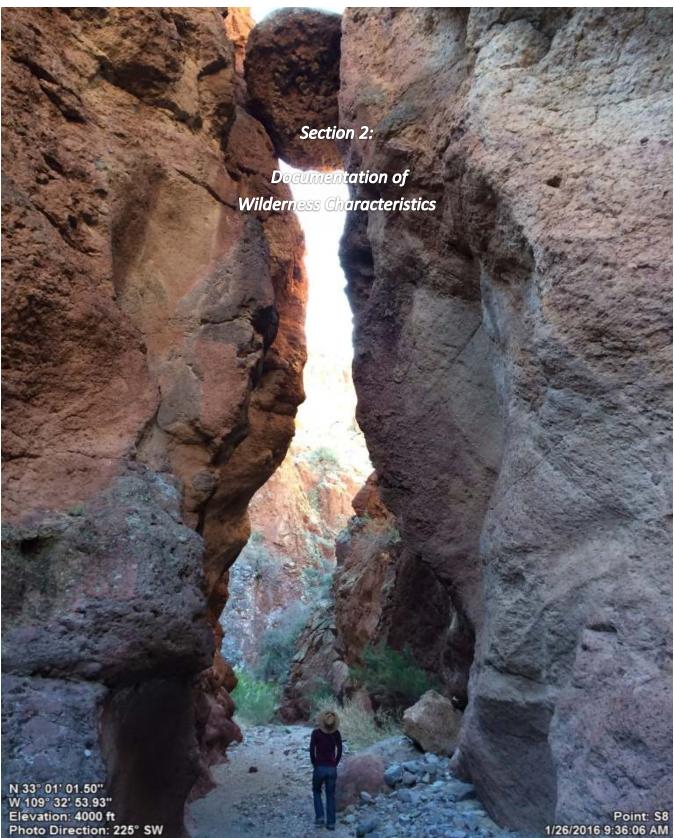
5 miles



Bonita Creek is among the most distinctive streams in Arizona for its spectacular riparian forests and wetlands, and it is a State-recognized "Arizona Outstanding Water". This photo looks down Bonita Creek toward impressive cottonwood and sycamore galleries, with ancient Puebloan cliff dwellings tucked in the cliffs to the left of the creek. It simply doesn't get any more outstanding than this!



Old-growth riparian trees, such as this enormous sycamore, are abundant along Bonita Creek. Exceptionally large examples of cottonwoods, sycamores, willows, ashes, box elders and more can be found in this riparian corridor; providing outstanding opportunities to recreate among giants. Beaver have built many dams which create a series of pools that allow sediment to settle, thus cleansing the water and supporting five species of native fish.



Midnight Canyon is a slot canyon that slices through the center of the proposed LWC and drops into a spectacular riparian forest along Bonita Creek. This photograph shows an example of one of the countless breathtaking features within Midnight Canyon. Visitors will be amazed to explore this narrow gorge showing the wild force of flooding in one of nature's most beautiful formations, a slot canyon.

#### Size Criteria

At ~29,641 contiguous BLM acres, the proposed LWC meets the minimum size criteria for roadless lands set forth in BLM Manual 6310. Several parcels of non-BLM land occur within this boundary. A full section of State Trust land is contained within the unit in South Smith Canyon. The land appears entirely natural with no improved human objects, and no vehicle access. A 125-acre parcel of private land in Hot Springs Canyon is contained within the proposed LWC, but this too is not accessible by vehicles and has no human developments. The City of Safford owns three parcels of land along Bonita Creek, all of which also appear entirely natural. Only twenty-five years ago, one could drive the length of Bonita Creek and access all of these parcels, but now the road has been closed and beaver ponding has made the canyon permanently impassable. The furthest northern parcel borders the San Carlos Reservation to the north. We are unsure if there is vehicle access to this parcel from that direction. A parcel of private land is within the unit which is provided vehicle access by way of East Bonita Rim and Christensen Roads; both roads are maintained by the BLM. The long cherrystem that divides this unit through the middle does not connect to anything to the north, so the full acreage is technically contiguous. Even if the road continued through, the two halves of the unit would still be 12,400 acres on the west, and 17,241 acres to the east. The proposed LWC is substantially larger than the 17,422 acre Turtle Mountain WSA (BLM, 1987<sup>3</sup>) because land acquisitions by BLM since that time have connected that area to BLM land owned in the Johnny Creek area.



Looking across the rugged canyon of Eagle Creek, toward Hot Springs Canyon and beyond into the proposed LWC at Turtle Mountain. The inner gorge of Eagle Creek is privately owned, but public access is allowed through. In this photo, the BLM land starts just beyond the cliffs in the mid-ground. Options for hiking, backpacking, and climbing are plentiful in this complex landscape that offers exceptional opportunities for solitude and primitive and unconfined recreation.

<sup>&</sup>lt;sup>3</sup> BLM. 1987. Final Environmental Impact Statement: Proposed Wilderness Program for The Safford District Wilderness EIS Area. USDI Bureau of Land Management, Safford Field Office.

### **Naturalness**

The Turtle Mountain Proposed LWC is in a natural state. Imprints of man within and surrounding the unit are scattered widely, are dwarfed by the scale of the landscape, and do not substantially impact the apparent naturalness of the unit to the average visitor. Range improvements, vehicle ways, and historic sites are the human impacts we have documented, and they are predominantly around the edge of the unit or along cherrystems. Our proposal has effectively excluded range improvements that we determined, through a careful examination, are functional systems that require vehicle access or those that appeared dysfunctional but would be likely to be maintained because of ongoing ranch activities. There are, however, a number of grazing installations that were not excluded from the unit because we determined them to be obsolete and have minimal impact on naturalness. The BLM, when analyzing the Turtle Mountain WSA, concluded that the area was in generally natural condition, and that "fourteen dirt dams, three rock and concrete dams, seven developed springs, 10 troughs and eight miles of pipeline, two rock and concrete storage tanks, two corrals, and 14 miles of fence" existed within the Wilderness Study Area, an area that had previously been determined as having wilderness characteristics (BLM, 1987: p. 61). These impacts were also acknowledged in the agencies All Wilderness alternative. We believe that the number of range improvements does not collectively impact the naturalness of the unit as we observed in our 2016 inventory. These impacts, today, are similar to as when the BLM reported that "the developed springs, pipelines, corrals, and fences have almost no impact on naturalness due to their small size, low profile and vegetative screening. The dams have a slight impact on naturalness in small, localized areas, but they are mostly well screened by topography and vegetation" (BLM, 1987: p. 61).



Johnny Creek flows west to east down the main drainage in this photograph, on its way toward Bonita Creek. The Safford-Morenci Trail traverses this canyon. An unnamed mountain that stands well above 5,000 feet in elevation rises up to the north of Johnny Creek, and is another example of the wild country found in this proposed LWC. The vehicle way documented at points 35 to 38 is in this view, and is hardly noticeable to the average visitor.

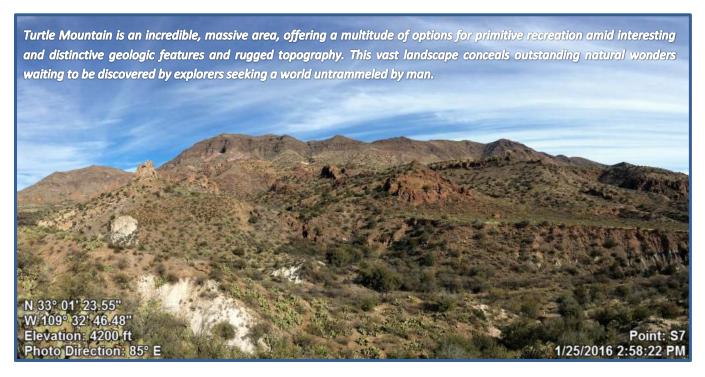
Several range improvements and grazing setups exist in South Smith Canyon, in the proposed LWC's northeastern region. These include a developed spring, a trough, and storage tank, and three dirt tanks. We did not hike out to these impacts, but documented that the access to them, via a route that starts on State Trust land on Black River Road, has been closed to vehicle travel by the BLM (see points 52 & 53). When the agency analyzed the Turtle Mountain WSA, they claimed that if access through the State Trust land was gained to build the tanks that were just listed, then it would "permanently impair the roadless character and natural qualities of South Smith Canyon [and] solitude would be temporarily impacted when vehicles were driving up the canyon and recreational activities would shift from primitive to motorized forms" (BLM, 1987: p. 130). Now that the BLM has closed the faded route and established a formal trailhead for the Safford-Morenci Trail in place of vehicle access, we argue that the naturalness and solitude has been restored to South Smith Canyon, and the impacts foreseen were indeed not lost permanently. A review of our photopoints will show that the range improvements we have documented are trivial impacts on the landscape. Primitive routes, or ways, do not substantially detract from the naturalness of the proposed LWC. Many old ways that may have been in better shape in 1980 have now been reclaimed by nature. One such way can be seen in S5, in section 3 of this report: the slopes at the center of this photo are crossed by this old vehicle way, documented at points 38 and 39, and shown to be virtually unidentifiable from a distance as a route. This very route was used as the determining factor for dropping the Johnny Spring Wilderness Study Unit from further consideration in 1980. However, as points 38 and 39 document, this route is fading and being reclaimed by natural processes; having no substantial impact to naturalness. \$18 (previous page) views this same old way at a landscape scale from the south; again, the average visitor cannot even pick out this unnoticeable primitive route. Most of the primitive routes documented within the LWC unit have minimal, if any, impact to naturalness. Examples of old ways that have organically been reclaimed by nature can be seen in photopoints 3, 8, 10, 12, 16, 26, 28, 38, 39, 50, 64, and 69. These are routes that are barely discernable even from close distances. Many primitive routes that are still occasionally used by vehicles are in the process of revegetating and do not substantially affect naturalness. These faint ways can be seen in photopoints 11, 41, 46, 47, 53, and 61-63.



#### Solitude & Recreation

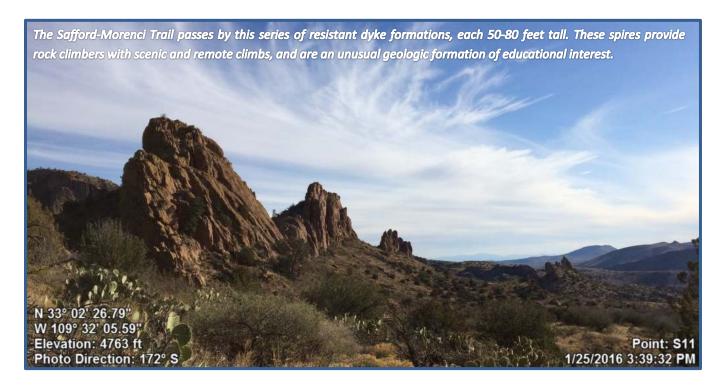
The Turtle Mountain Proposed LWC provides outstanding opportunities for solitude and primitive and unconfined recreation. Some activities that the BLM has identified as primitive recreation in the Safford area include hunting, horseback riding, hiking, backpacking, camping, rock scrambling and climbing, sightseeing, photography, and environmental study (BLM, 1987). In the past, the BLM has reported that:

"Outstanding opportunities for solitude exist throughout [Turtle Mountain]. The area's large size, shape, topography, and vegetation allow visitors to avoid the sights, sounds and evidence of other people. Many canyons, such as Trujillo, Hot Springs and South Smith Canyons, provide numerous secluded spots. The size of the WSA and its diversity of topographic features provide visitors with outstanding opportunities for the following primitive recreation activities: hiking, backpacking, camping, horseback riding, hunting, photography and sightseeing" (BLM, 1987: p. 62).



Outstanding opportunities for primitive and unconfined recreation, as well as solitude, exist throughout the unit. Backpackers can explore a multitude of routes with adequate water resources within the LWC. Ephemeral and perennial streams, as well as springs, provide reliable water throughout most of the year. The Safford-Morenci Trail traverses through the heart of the LWC, offering truly primitive hiking or horseback riding experiences along an historic route. Backpackers or day-hikers can hike down the stunning Midnight Canyon to Bonita Creek where they can explore wetlands and riparian forests next to ancient cliff dwellings before checking out the historic Lady Gay cabin. Whether staying overnight, or just for the day, these features provide outstanding opportunities for primitive recreation and experiencing solitude surrounded by world-class scenery. Rock climbers will be thoroughly challenged on the rugged cliffs and exposed outcrops of Turtle Mountain, or they can look for more moderate experiences among the wildly shaped boulders in the western part of the

unit near Johnny Creek. The Turtle Mountain Proposed LWC is such a large unit of land covering a diversity of terrain and topography in a remote region that outstanding opportunities for solitude and unconfined primitive recreation can be found throughout the unit.



For hunters, the Turtle Mountain Proposed LWC provides abundant high-quality habitat for band tailed pigeon, bighorn sheep, black bear, fox squirrel, Gambel's quail, javelina, mountain lion, and mule deer; all considered Species of Economic and Recreational Importance by Arizona Game and Fish (www.habimap.org). The proposed LWC also provides great birdwatching opportunities, especially along Bonita Creek, where "the breeding bird diversity is among the greatest in the United States" (BLM, 1987: p. 468). Dedicated wildlife watchers might even see sensitive species such as bald eagles, peregrine falcons, yellow-billed cuckoo, or black hawks. For fishermen, Bonita Creek contains "the greatest standing crop biomass of fishes recorded in a southwestern stream" (BLM, 1987: p. 468). For those interested in viewing rare native fish, Bonita Creek supports populations of many sensitive native species, discussed in detail under the Supplemental Values portion of this report. Beaver are active along Bonita Creek giving wildlife watchers the rare opportunity to observe their influence on wetland ecosystems in the arid southwest. Being a perennial creek set in an extremely scenic canyon, Bonita Creek provides an outstanding setting for nature study and photography for all of the reasons listed above and more.

When Turtle Mountain was analyzed for its wilderness values in 1987, the BLM found that visitors spent 75 user-days hunting for deer and game birds within the proposed LWC, and 100 user-days were spent hiking the Safford-Morenci Trail (BLM, 1987: p. 93). Today, far more people use these recreation sites, and the amount of BLM land has grown substantially, highlighting the importance of protecting wilderness characteristics across the entirety of the proposed LWC.

# Supplemental Values

The Turtle Mountain Proposed LWC has supplemental values that enhance the wilderness experience and 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). This entire unit is spectacular, but undoubtedly, Bonita Creek is distinctly outstanding in that it provides all of the aforementioned values, with rare species, wild geology, immense scenic views, historic and prehistoric archaeological sites, historic trails, and more. Recognizing that, Bonita Creek was included as part of the Gila Box Riparian National Conservation Area (RNCA). 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/

Source: "Draft Environmental Assessment: Native Fish Restoration in Bonita Creek, Gila Box Riparian National Conservation Area, Graham County, Arizona". U.S. Department of the Interior, Bureau of Reclamation, Phoenix Area Office. Find it at: http://www.usbr.gov/lc/phoenix/reports/bonitacreek/bcfbdeanoapps.pdf

Source: "Upper Gila-San Simon Grazing Environmental Statement Final". Published in 1978 by the Bureau of Land Management, Safford District, Arizona.

Find it at: http://catalog.hathitrust.org/Record/002559477

The State HDMS provides reports to the public for known occurrences of sensitive plant and animal species per USGS topographic quadrangles. The proposed LWC falls on the Copperplate Gulch, Bonita Springs, Bryce Mountain, Gila Box, Lone Star Mountain and Weber Peak quadrangles. Five native fish currently occur in Bonita Creek, consisting of Gila chub, speckled dace, longfin dace, Sonora sucker and desert sucker. More than 200 bird species are known to occur here as well, making this one of the most biologically diverse places in Arizona. Some raptors that are known to occur here include golden eagle, common black hawk, bald eagle, zone-tailed hawk, red-tailed hawk, osprey and peregrine falcon. Bonita creek also provides important habitat for beaver, Bell's vireo, Gila woodpecker, lowland leopard frog, and many species of bats. A table listing the all of the sensitive species found within the six-quad area is provided in Appendix 1. The protection of the proposed LWC would benefit these species, though they may or may not occur within the proposed LWC at all times.

## The proposed LWC contains critical habitat for wildlife species of concern

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 for two fish in Bonita Creek, spikedace and loach minnow. To the immediate east of the unit, Eagle Creek provides proposed critical habitat for yellow billed cuckoo and narrow-headed gartersnake. Upland conditions in the Turtle Mountain unit have direct effects on habitat integrity in Eagle Creek.

### 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. The proposed LWC contains thousands of acres of what TNC classified as "former" grassland, because of shrub invasion. Our observations, however, were that much of the area is still very open grassland, punctuated by areas of infilling chaparral, mesquite, catclaw and desert scrub. Indeed, in the absence of wildfire, much of the grassland has begun a transition to a shrub-scrub vegetation type. However, because so much of the unit is still dominated by grassland composition, the protection of the area would contribute to the conservation of this important and diminishing ecological and cultural resource. Application of prescribed fire would restore grasslands, and allowance of wildfire use would accomplish that as well.



Taken from the southeastern unit border, this photo features the beautiful, gracefully rolling southern ridges of Turtle Mountain, unfragmented by the machines and endeavors of man. Scenes such as this are common throughout the proposed LWC with nothing but one's own hesitation to keep you from getting lost in expansive solitude. This area's grasslands provide high-quality white-tail deer habitat for hunters, or for those simply looking to catch a glimpse of these attractive creatures.

### 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. Portions of the proposed LWC are within the Bonita Creek-Gila Box Conservation Area, which encompasses 23,475 acres in the vicinity of the Gila Box RNCA, and the Blue River/Eagle Creek Conservation Area, which encompasses 867,321 acres in eastern Arizona and western New Mexico's Gila Bioregion. The Turtle Mountain Proposed LWC contains a number of species and ecosystem conservation targets assessed by TNC, including the species listed above, plus black bear, Arizona tree squirrel, Arizona toad, southwestern willow flycatcher, pinyon-juniper woodlands, Apachean grassland savanna, and more. 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.



This view looks into the headwaters of Johnny Creek, where pinyon pine woodlands provide vegetative screening for those looking to avoid the sights and sounds of others, although not many people appear to make their way to this remote location. This area is considered a conservation priority by TNC.

#### The proposed LWC contains archaeological & historical sites of cultural importance

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

Source: "The Archaeology of the Gila Box Riparian National Conservation Area", by Toby Taylor. Published in 2006 in Archaeology Southwest, the Quarterly Publication of the Center for Desert Archaeology, Volume 20, No. 2. Find it at: https://www.archaeologysouthwest.org/pdf/arch-sw-v20-no2.pdf

The historic Safford-Morenci Trail runs through the heart of the proposed LWC. This route was established in the late 1800's as trade route for farmers in the Gila Valley to bring their goods to the bustling mining settlements of Clifton and Morenci. Today, the trail is one of the few designated hiking routes in the area that is not on the Coronado National Forest, and it is used as a portion of the Grand Enchantment Trail, a 770 mile route from Albuquerque to Phoenix. Where this trail crosses Bonita Creek, there are several important sites. Some cliff dwellings, related to Kayenta Anasazi southward migration and dating to 1200 to 1400 A.D., are tucked into the tuff cliffs overlooking the lush riparian woodland. Nearby, the Old Lady Gay cabin and homestead site preserves a circa 1900 farm homestead. Numerous archaeological sites occur along the length of Bonita Creek, most notably Pueblo Doval, a 50 room cliff dwelling that can be reached via a short trail which starts at the end of Christensen Road in the northernmost portion of the unit, as well as elaborate rock art and at least one ceremonial cave. These sites are significant as they are the only known prehistoric sites to display Anasazi characteristics in the Safford district.



Pueblo Doval is an incredible group of cliff dwellings in the far northern part of the proposed LWC. Our inventory team found additional cliff dwellings several miles downstream from here as well, indicating that there may be even more ruins along the creek corridor. What an outstanding opportunity it is to be able to find such wonders...as if being discovered for the very first time.

The proposed LWC's **riparian ecosystems** are eligible for **National Wild and Scenic River Designation**; the unit has been nominated as an **Area of Critical Environmental Concern**, and some of the unit is currently protected by a **National Riparian Conservation Area** 

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

Source: "Final Arizona Statewide Wild and Scenic Rivers Legislative Environmental Impact Statement: Rivers Appendix". Published in 1994 by the Bureau of Land Management, Arizona State Office.

Find it at: http://www.blm.gov/az/st/en/info/nepa/environmental\_library/wsr.html

Source: "Gila Box Management Plan, Environmental Assessment, and Decision Record", published in 1998 by the USDI Bureau of Land Management, Safford Field Office.

Find it at: http://www.blm.gov/az/st/en/info/nepa/environmental\_library/arizona\_resource\_management.html

The Turtle Mountain proposed LWC contains exceptionally important ecological, scenic, historical, and educational features. Bonita Creek was evaluated under the guidelines of the National Wild and Scenic River System, and therein the BLM reported that:

"resources which are outstandingly remarkable include habitat for federally listed and proposed Threatened and Endangered wildlife species, 15 miles of riparian habitat, a perennial creek with water quality qualifying for state Unique Water designation, National Register quality cultural resource sites, an area with one of the highest numbers of breeding bird species found in the United States, the greatest standing crop biomass of fishes recorded in a southwestern stream and a very scenic canyon...Other outstandingly remarkable values include numerous historic and prehistoric cultural sites including several well-preserved cliff dwellings and a historic cabin. The proposed National Historic Safford-Morenci Trail crosses the drainage...Other values which enhance the area's overall social and ecological value include recreational hiking, camping, birding, scenic backcountry driving and water play. The area also has a critical water supply which demonstrates the outstanding quality of the water."

IN 1994, the BLM determined that the upper 8.1 miles of Bonita creek were suitable for designation as *Recreational*, and recommended to Congress that the area be designated as such. Also during that period, four separate Areas of Critical Environmental Concern were nominated:

**Johnny Creek**: the canyon was proposed for study as an Outstanding Natural Area in the 1973 Geronimo Management Framework Plan, but a review and study of the resources determined that the scenic and riparian values were no more than locally important and the area was dropped from consideration as an ACEC.

**Trujillo Canyon**: an area in the eastern portion of the unit with relevant riparian and cultural resources, but not determined to be more than locally important so the area was dropped from further consideration.

**Turtle Mountain Desert Grassland**: an area of relevant and important desert grassland resources. However, the preferred management prescription was not special management. The proposed area was dropped from further consideration due to the lack of special management needs because other relict grasslands were proposed for ACEC status.

**Turtle Mountain**: the area between Eagle and Bonita Creeks, the Gila River and the San Carlos Apache Reservation was also evaluated, but nothing of historical, scenic, or ecological value was determined to

be more than local importance, so the area was dropped from consideration. Ultimately, since the riparian values of Bonita Creek and the Gila River seemed to be the most outstanding features, congress designated the Gila Box Riparian National Conservation Area, and Bonita Creek is one of only twenty-two streams in Arizona that has been designated an Arizona Outstanding Water per A.A.C. R18-11-112(G). The RNCA does indeed provide enhanced protection and better management for those canyons, and in fact the BLM has initiated much improved management practices, such as closing roads, limiting cattle to upland areas, and supporting passive recreational opportunities in the vicinity of the RNCA. However, the RNCA boundaries are designed following rectilinear patterns that do not appropriately represent the natural contours of the land, or follow human impact boundaries such as wilderness inventory roads or impacts to naturalness. Since these analyses were completed the BLM has acquired a significant amount of land in the Johnny Creek/Brushy Canyon area, the road traveling up Bonita Creek has been closed and fully reclaimed, beaver have spread to dominate the stream, and the immediate impacts of a period of intense development of range improvements have healed and naturalized. Together, these conditions have aligned to result in the land encompassed by the Turtle Mountain Proposed LWC to be in a more intact, functional, and wild state than it has been for a century. Taken independently, the supplemental values described in this report may not all have exceptional significance, but the aggregation of them - all contained within a contiguous public ownership, defined by clear human impacts around its perimeter but devoid of substantial impacts to naturalness within - is truly of national significance, and deserving of management for protection of wilderness characteristics.



After hiking down Midnight Canyon, visitors discover the spectacular riparian forests and wetlands along Bonita Creek. With active beaver, blue herons, mountain lions and so much more incredible wildlife to observe, Bonita Creek truly is one of Arizona's most spectacular natural wonders. Outstanding opportunities for primitive and unconfined recreation, as well as for total solitude, are everywhere.

#### **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 Turtle Mountain Proposed LWC covers an enormous area that absolutely appears natural to the average visitor. With over 3,000 feet of elevational change including slot canyons, gorges, crags, boulder-strewn hillsides, native grasslands, pinyon woodlands, numerous springs, riparian and floodplain forests, and ephemeral and perennial creeks; primitive recreational opportunities abound. Indeed, the BLM itself has recognized the wilderness characteristics present within most of the area encompassed by the proposed LWC. The historic Safford-Morenci Trail, which makes up a portion of the Grand-Enchantment Trail, travels through a great distance of the proposed unit and provides for a variety of exceptional primitive recreation opportunities. There is an incredible range of experiences available for finding outstanding solitude and primitive and unconfined recreation.

The proposed LWC contains an astounding amount of exceptionally important ecological, scenic, historical, and educational features that are nationally significant. Pre-historic ruins that are of National Register quality are located along Bonita Creek, with the exact number up for discovery. Bonita Creek itself is a national treasure that has been designated an Arizona Outstanding Water and is contained within the larger Gila Box Riparian National Conservation Area. This hugely diverse proposed LWC contains a number of sensitive, threatened and endangered species. Collectively, these valued attributes combine to create a proposed LWC unit that unquestionably deserves greater protection to insure that these traits are preserved for all citizens to enjoy.

Turtle Mountain, Bonita Creek, Brushy Canyon, Johnny Creek; these areas, unified under one contiguous unit of land with wilderness characteristics, are truly an exceptional representation of the ecology, scenery, and cultural landscape of the transitional zone of the greater Gila Bioregion of east-central Arizona. There is no denying the rate and permanent impact of development in this region. Some of the world's largest mines, some of Arizona's most fertile agricultural fields, rapid residential development, and increasing use of limited water sources all exert demands on the lands and waters of this arid region. Protecting the immense wilderness characteristics of the Turtle Mountain Proposed LWC can help ensure that societies needs for recreation, scenic enjoyment, and fish and wildlife habitat are met now and in the future.

# Appendix 1: Arizona Heritage Data Management System Report for Turtle Mountain Proposed LWC

Quad Name	Scientific Name	Common Name	USESA	USFS	BLM	GRANK	SRANK	SGCN	NPL
COPPERPLATE GULCH	Agosia chrysogaster chrysogaster	Gila Longfin Dace	SC		S	G4T3T4	S3S4	1B	
COPPERPLATE GULCH	Anaxyrus microscaphus	Arizona Toad	SC			G4	S3S4	1B	
COPPERPLATE GULCH	Aquila chrysaetos	Golden Eagle			S	G5	<b>S</b> 4	1B	
COPPERPLATE GULCH	Bat Colony					GNR	SU		
COPPERPLATE GULCH	Buteo albonotatus	Zone-tailed Hawk				G4	S4		
COPPERPLATE GULCH	Buteogallus anthracinus	Common Black Hawk				G4G5	<b>S</b> 3	1C	
COPPERPLATE GULCH	Catostomus clarkii	Desert Sucker	SC	S	S	G3G4	S3S4	1B	
COPPERPLATE GULCH	Catostomus insignis	Sonora Sucker	SC	S	S	G3G4	<b>S</b> 3	1B	
COPPERPLATE GULCH	Eumops perotis californicus	Greater Western Bonneted Bat	SC		S	G5T4	<b>S</b> 3	1B	
COPPERPLATE GULCH	Falco peregrinus anatum	American Peregrine Falcon	SC	S	S	G4T4	S4	1A	
COPPERPLATE GULCH	Gila robusta	Roundtail Chub	PT, DPS	S		G3	S2	1A	
COPPERPLATE GULCH	Haliaeetus leucocephalus (wintering pop.)	Bald Eagle - Winter Population	SC	S	S	G5TNR	S4N	1A	
COPPERPLATE GULCH	Heuchera glomerulata	Chiricahua Mountain Alumroot		S		G3	<b>S</b> 3		
COPPERPLATE GULCH	Lithobates yavapaiensis	Lowland Leopard Frog	SC	S	S	G4	<b>S</b> 3	1A	
COPPERPLATE GULCH	Penstemon linarioides var. maguirei	Maguire's Penstemon		S		G5T1	<b>S1</b>		SR
COPPERPLATE GULCH	Penstemon pinifolius	Pineneedle Beardtongue				G3G4	<b>S</b> 3		
COPPERPLATE GULCH	Penstemon ramosus	Branching Penstemon				G3G4Q	<b>S1</b>		
COPPERPLATE GULCH	Penstemon superbus	Superb Beardtongue				G3?	S2?		
COPPERPLATE GULCH	Perityle ambrosiifolia	Lace-leaf Rockdaisy			S	G1	<b>S1</b>		
COPPERPLATE GULCH	Rhinichthys osculus	Speckled Dace	SC		S	G5	S3S4	1B	
COPPERPLATE GULCH	Salvia davidsonii	Davidson Sage				G2?	S2?		
COPPERPLATE GULCH	Strix occidentalis lucida	Mexican Spotted Owl	LT			G3T3	S3S4	1A	
COPPERPLATE GULCH	Tadarida brasiliensis	Brazilian Free-tailed Bat				G5	S3S4	1B	
COPPERPLATE GULCH	Thamnophis rufipunctatus	Narrow-headed Gartersnake	LT	S		G3G4	<b>S</b> 1	1A	
BONITA SPRING	Agosia chrysogaster chrysogaster	Gila Longfin Dace	SC		S	G4T3T4	S3S4	1B	
BONITA SPRING	Aquila chrysaetos	Golden Eagle			S	G5	S4	1B	
BONITA SPRING	Bat Foraging Area	High Netting Concentration				GNR	SU		
BONITA SPRING	Buteo albonotatus	Zone-tailed Hawk				G4	<b>S</b> 4		
BONITA SPRING	Buteogallus anthracinus	Common Black Hawk				G4G5	<b>S</b> 3	1C	
BONITA SPRING	Catostomus clarkii	Desert Sucker	SC	S	S	G3G4	S3S4	1B	
BONITA SPRING	Catostomus insignis	Sonora Sucker	SC	S	S	G3G4	<b>S</b> 3	1B	
BONITA SPRING	Gila intermedia	Gila Chub	LE			G2	S2	1A	
BONITA SPRING	Haliaeetus leucocephalus (wintering pop.)	Bald Eagle - Winter Population	sc	S	S	G5TNR	S4N	1A	
BONITA SPRING	Idionycteris phyllotis	Allen's Lappet-browed Bat	SC	S	S	G4	S2S3		
BONITA SPRING	Lasiurus cinereus	Hoary Bat				G5	S4		
BONITA SPRING	Rhinichthys osculus	Speckled Dace	SC		S	G5	S3S4	1B	
BRYCE MOUNTAIN	Aquila chrysaetos	Golden Eagle			S	G5	S4	1B	
BRYCE MOUNTAIN	Catostomus clarkii	Desert Sucker	SC	S	S	G3G4	S3S4	1B	
BRYCE MOUNTAIN	Catostomus insignis	Sonora Sucker	SC	S	S	G3G4	<b>S</b> 3	1B	
BRYCE MOUNTAIN	Echinocereus arizonicus ssp. nigrihorridispinus	Black-spined Hedgehog Cactus				GNR	S2		
BRYCE MOUNTAIN	Gila intermedia	Gila Chub	LE			G2	S2	1A	
BRYCE MOUNTAIN	Rhinichthys osculus	Speckled Dace	SC		S	G5	S3S4	1B	

# Turtle Mountain Proposed LWC

Quad Name	Scientific Name	Common Name	USESA	USFS	BLM	GRANK	SRANK	SGCN	NP
GILA BOX	Agosia chrysogaster chrysogaster	Gila Longfin Dace	SC		S	G4T3T4	S3S4	1B	
GILA BOX	Anaxyrus microscaphus	Arizona Toad	SC			G4	S3S4	1B	
GILA BOX	Buteo albonotatus	Zone-tailed Hawk				G4	S4		
GILA BOX	Buteogallus anthracinus	Common Black Hawk				G4G5	S3	1C	
GILA BOX	Catostomus clarkii	Desert Sucker	SC	S	S	G3G4	S3S4	1B	
GILA BOX	Catostomus insignis	Sonora Sucker	SC	S	S	G3G4	S3	1B	
GILA BOX	Coccyzus americanus	Yellow-billed Cuckoo (Western DPS)	LT	S		G5	S3	1A	
GILA BOX	Cyprinodon macularius	Desert Pupfish	LE			G1	S1	1A	
GILA BOX	Echinocereus arizonicus ssp. nigrihorridispinus	Black-spined Hedgehog Cactus				GNR	S2		
GILA BOX	Gila intermedia	Gila Chub	LE			G2	S2	1A	
GILA BOX	Gila robusta	Roundtail Chub	PT, DPS	S		G3	S2	1A	
GILA BOX	Gyalopion canum	Chihuahuan Hook-nosed Snake				G5	S3		
GILA BOX	Haliaeetus leucocephalus (wintering pop.)	Bald Eagle - Winter Population	SC	S	S	G5TNR	S4N	1A	
GILA BOX	Lithobates yavapaiensis	Lowland Leopard Frog	SC	S	S	G4	S3	1A	
GILA BOX	Meda fulgida	Spikedace	LE			G2	S1	1A	
GILA BOX	Penstemon superbus	Superb Beardtongue				G3?	S2?		
GILA BOX	Perityle ambrosiifolia	Lace-leaf Rockdaisy			S	G1	S1		
GILA BOX	Rhinichthys osculus	Speckled Dace	SC		S	G5	S3S4	1B	
GILA BOX	Sonorella delicata	Tollhouse Canyon Talussnail				G1	S1	1C	
GILA BOX	Tiaroga cobitis	Loach Minnow	LE			G2	S1	1A	
LONE STAR MOUNTAIN	Agosia chrysogaster chrysogaster	Gila Longfin Dace	SC		S	G4T3T4	S3S4	1B	Г
LONE STAR MOUNTAIN	Aquila chrysaetos	Golden Eagle			S	G5	S4	1B	
LONE STAR MOUNTAIN	Bat Colony					GNR	SU		
LONE STAR MOUNTAIN	Buteogallus anthracinus	Common Black Hawk				G4G5	<b>S</b> 3	1C	
LONE STAR MOUNTAIN	Catostomus clarkii	Desert Sucker	SC	S	S	G3G4	S3S4	1B	
LONE STAR MOUNTAIN	Catostomus insignis	Sonora Sucker	SC	S	S	G3G4	<b>S</b> 3	1B	
LONE STAR MOUNTAIN	Coccyzus americanus	Yellow-billed Cuckoo (Western DPS)	LT	S		G5	<b>S</b> 3	1A	
LONE STAR MOUNTAIN	Cyprinodon macularius	Desert Pupfish	LE			G1	<b>S1</b>	1A	Г
LONE STAR MOUNTAIN	Gila intermedia	Gila Chub	LE			G2	S2	1A	
LONE STAR MOUNTAIN	Haliaeetus leucocephalus (wintering pop.)	Bald Eagle - Winter Population	SC	S	S	G5TNR	S4N	1A	
LONE STAR MOUNTAIN	Macrotus californicus	California Leaf-nosed Bat	SC		S	G4	<b>S</b> 3	1B	Г
LONE STAR MOUNTAIN	Meda fulgida	Spikedace	LE			G2	S1	1A	
LONE STAR MOUNTAIN	Penstemon superbus	Superb Beardtongue				G3?	S2?		
LONE STAR MOUNTAIN	Rhinichthys osculus	Speckled Dace	SC		S	G5	S3S4	1B	
WEBER PEAK	Abutilon parishii	Pima Indian Mallow	SC	S	S	G2	<b>S</b> 3		SR
WEBER PEAK	Aquila chrysaetos	Golden Eagle			S	G5	S4	1B	
WEBER PEAK	Echinocereus arizonicus ssp. nigrihorridispinus	Black-spined Hedgehog Cactus				GNR	S2		

# Appendix 2: Bonita Creek/Gila Box and Blue River/Eagle Creek Conservation Areas Target Species and Ecological Systems from Marshall et al., 2004: p. 123-124

	Area 38 Bonita Creek/ Gila		on Targets	15
Site size (hecta	res): 9,500 (acres):	23,475	- 20	
Taxonomio Group	Solentific Name	Common Name	Global	
Ecological Syst	tem	Apachean Shrubland	GU	
		Desert Riparian Woodland and Shrubland	GU	
		Desert Wash	GU	
		Interior Chaparral	GU	
		Pinyon-Juniper Woodland	GU	
Bird	Buteo albonotatus	Ponderosa Pine Forest and Woodland Zone-tailed hawk	GU	
BITO.	Buteogallus anthracinus	Common black-hawk	G4	
Fish	Agosla chrysogaster	Longfin dace	G4	
	Catostomus clark/	Desert sucker	G3	
	Catostomus Insignis	Sonora sucker	G3	
	Glia intermedia	Glia chub	G2	C
	Rhinichthys osculus	Speckled dace	G5	
Mammai Sciurus arizoniensis Ursus americanus		Arizona tree squirrel	G4 G5	
	Orsus americanus	Black bear	93	
			-	**
Conservation . Site size (hectar	Area 39 Blue River/ Eagle C res): 351,000 (acres): 8	Creek Total Conservati 167,321	on Targets	43
Taxonomio Group	Solentific Name	Common Name	Global Rank	
The state of the s	201		GU	Statu
Ecological Syst	lem	Apachean Grassland and Savanna Condition Class A Apachean Grassland and Savanna Condition Class B	GU	
		Apachean Shrubland	GU	
		Chihuahuan Desert Scrub	GU	
		Clenega point	GU	
		Desert Riparian Woodland and Shrubland	GU	
		Desert Wash	GU	
		Interior Chaparral	GU	
		Madrean Encinal	GU	
		Madrean Oak-Pine Woodland Montane Riparian Woodland and Strubland	GU	
		Plnyon-Juniper Woodland and Shrubland Plnyon-Juniper Woodland	GU	
		Ponderosa Pine Forest and Woodland	GU	
		Sonoran Paloverde-Mixed Cacti Desert Scrub	GU	
Amphibian	Bufo microscaphus microscaphus	Arizona toad	G3	
	Rana chiricahuensis	Chiricahua leopard frog	G3	LT
Amphiblan	Rana pipiens	Northern leopard frog	G5	
	Rana yavapalensis	Lowland leopard frog	G4	
Bird	Athene cunicularia hypugaea	Western burrowing owl	G4	
	Buteo albonotatus	Zone-tailed hawk	G4	
	Buteogailus anthracinus	Common black-hawk	G4 G3	ic.
	Coccyzus americanus occidentalis Empidonax trallili extimus	Western yellow-billed cuckoo Southwestern willow flycatcher	63	C .
	Faico peregrinus anatum	American peregrine faicon	G3	LE
	Plolio aberti	Abert's townee	G3	
	Strix occidentalis lucida	Mexican spotted owl	G3	LT
Fish	Agosla chrysogaster	Longfin dace	64	= 0
	Catostomus clark/	Desert sucker	G3	
	Catostomus Insignis	Sonora sucker	G3	
	GNa Intermedia	Gla chub	G2	C
	GNa robusta	Roundtali chub	G2	
	Meda fulgida Rhinichthys osculus	Spikedace Speckled dace	G2 G5	LT
	Tiaroga cobitis	Loach minnow	62	LT
	Xyrauchen texanus	Razorback sucker	G1	LE
Mammal	Eumops perotis californicus	Greater western mastiff bat	G4	2.3
100000	Sclurus arizonensis	Arizona tree squirrei	G4	
	Ursus americanus	Black bear	G5	
Reptile	Thamnophis rufipunctatus	Narrow-headed garter snake	G3	
	Conioselinum mexicanum	Mexican hemiock parsley	G2	
	Lupinus lemmonii	Lemmon's lupine	G1	
	Penstemon linarioides ssp maguir		G1	
	Penstemon ilnarioides sup maguir Penstemon superbus	Maguire's penstemon Superb beardtongue	G1 G2	

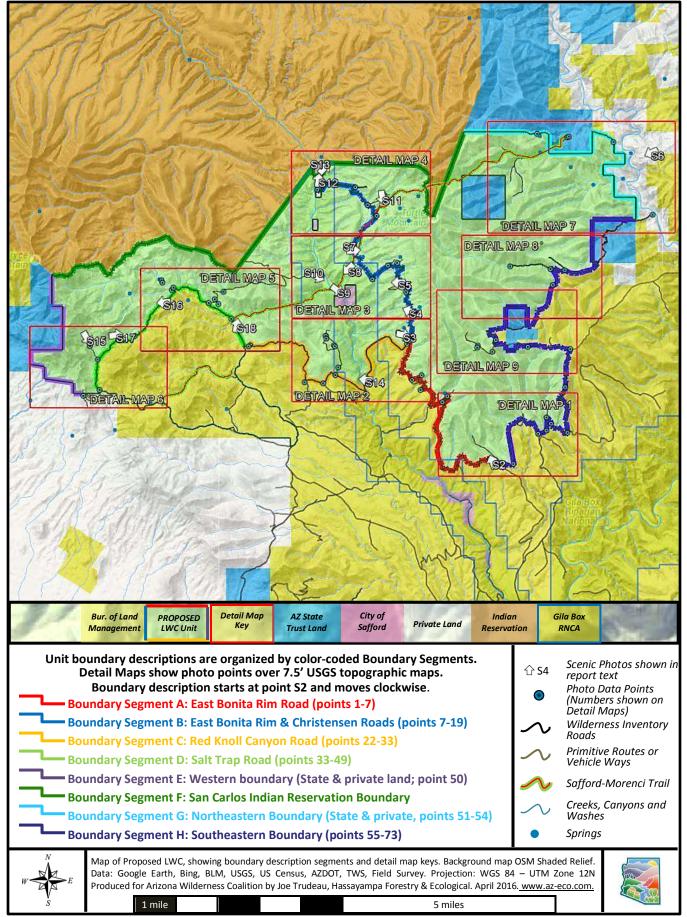
## Section 3:

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

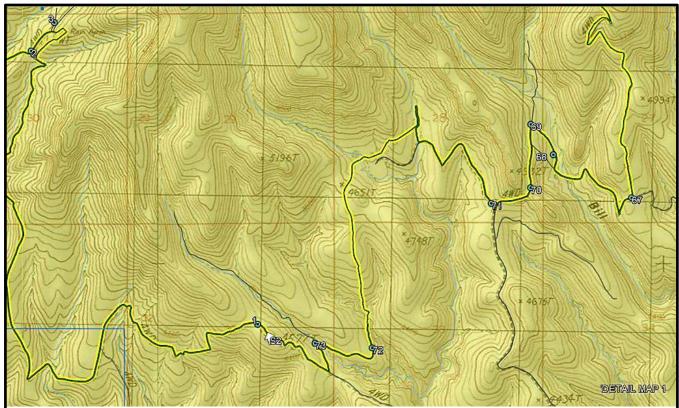
This photograph looks over Lines Canyon as it winds toward Farrell Mountain (left middle ground), lower Johnny Creek, and Brushy Canyon. Substantially noticeable imprints of human influence are completely lacking throughout most of the Turtle Mountain Proposed LWC. The slopes at the right-center of this photo actually are crossed by an old vehicle way, documented at points 38 and 39 and shown to be virtually unidentifiable as a route. This very route was used as the determination for dropping the Johnny Spring Wilderness Study Unit from further consideration in 1980. The area is now fully re-wilded. Outstanding only begins to describe the wilderness character found in this LWC. The Safford-Morenci Trail crosses Bonita Canyon in the center of this photo.



Overview Map with Boundary Segments & Detail Map Keys

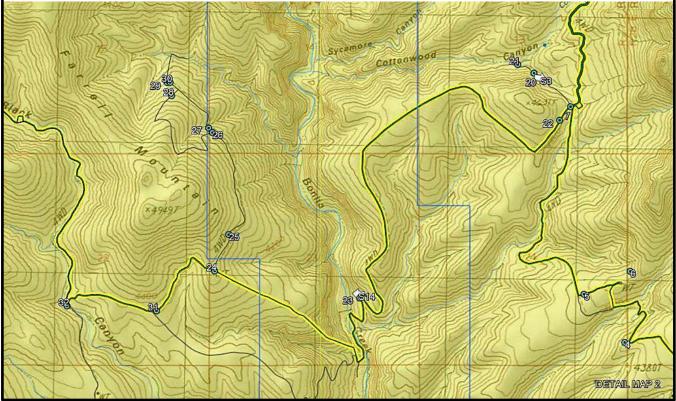


Detail Maps with Photopoint Locations: (Refer to Overview Map for Symbology; Scale varies)

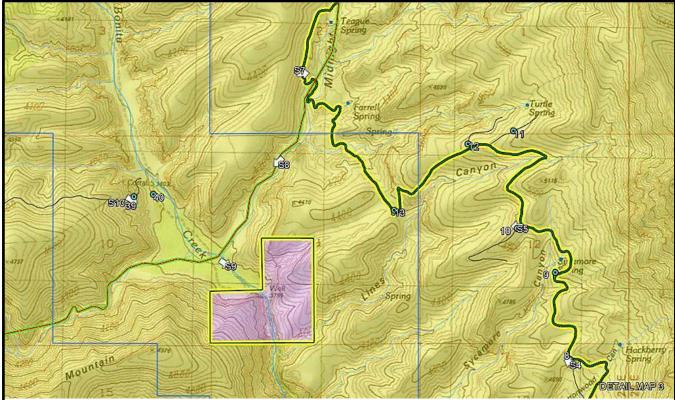


DETAIL MAP 1: SHOWING THE BOUNDARY FOLLOWING EAST BONITA RIM ROAD. THE SOUTHERN SLOPES OF TURTLE MOUNTAIN ARE VIRTUALLY PRISTINE, WITH MOST RANCH IMPACTS CONFINED TO THE BOUNDARY ROADS.

DETAIL MAP 2: SHOWING THE BOUNDARY FOLLOWING EAST BONITA RIM AND RED KNOLL CANYON ROADS. THE CHERRYSTEM TO CHRISTENSEN ROAD IS SHOWN UPPER RIGHT. THE LEFT PORTION OF THE BOUNDARY FOLLOWS BLACK CANYON, EXCLUDING SOME RANCH INFRASTRUCTURE. THE GORGE OF BONITA CREEK IS SHOWN MAP CENTER.

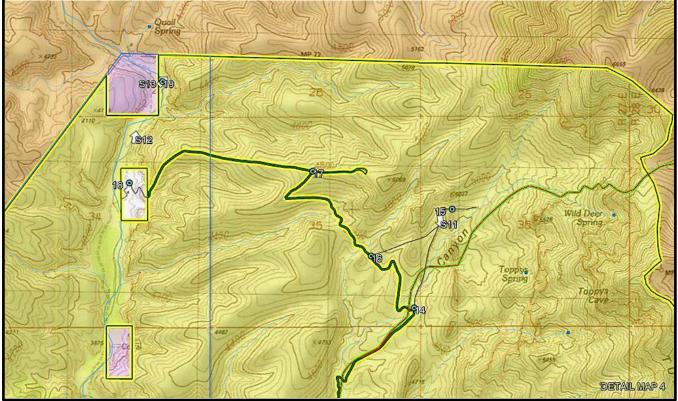


Detail Maps with Photopoint Locations: (Refer to Overview Map for Symbology; Scale varies)

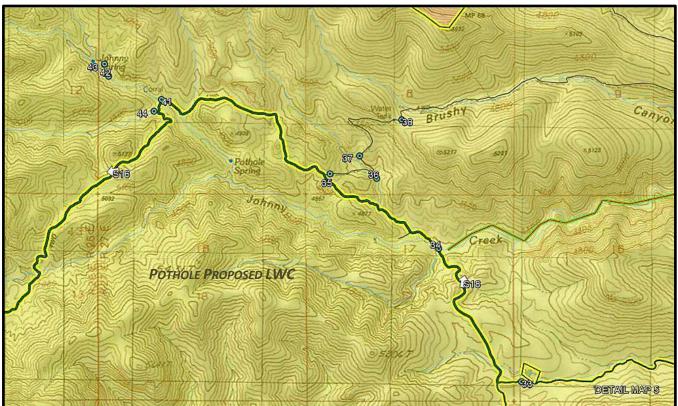


DETAIL MAP 3: SHOWING THE BOUNDARY FOLLOWING A CHERRYSTEM ALONG EAST BONITA RIM ROAD. THE STEEP ESCARPMENT OF EASTERN TURTLE MOUNTAIN RISES TO THE RIGHT. THE SAFFORD-MORENCI TRAIL CROSSES BONITA CREEK VIA MIDNIGHT CANYON (SHOWN IN GREEN/RED LINE). THE CITY OF SAFFORD OWNS THE PINK SHADED PARCEL.

DETAIL MAP 4: THE NORTHERN EXTENT OF THE UNIT, BORDERING THE SAN CARLOS RESERVATION, SHOWING THE SAFFORD-MORENCI TRAIL, THE CHERRYSTEM FOLLOWING CHRISTENSEN ROAD TO A PRIVATE PARCEL ALONG BONITA CREEK; AND TWO PARCELS OWNED BY THE CITY OF SAFFORD. PUEBLO DOVAL RUIN IS LOCATED AT POINT 19/S13.

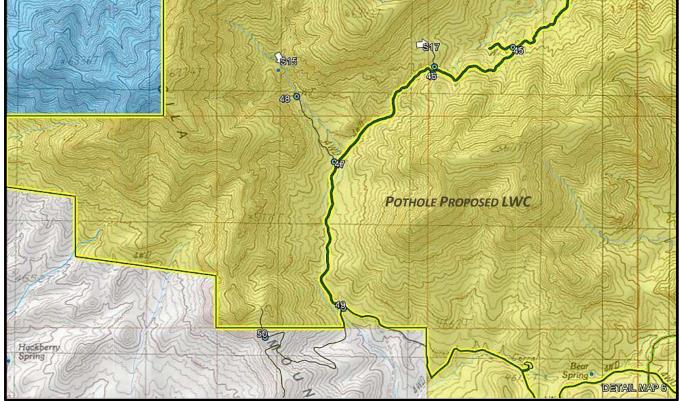


Detail Maps with Photopoint Locations: (Refer to Overview Map for Symbology; Scale varies)

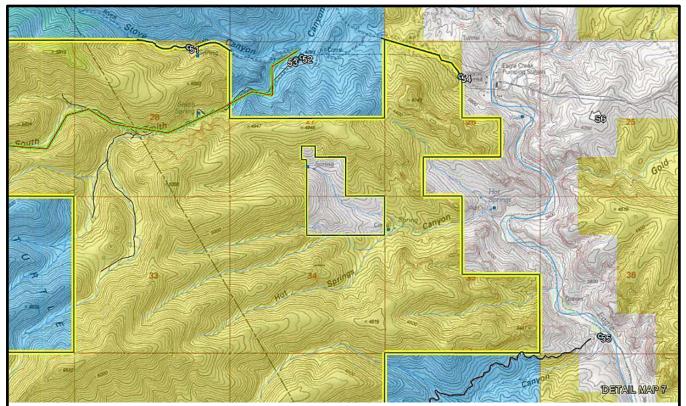


DETAIL MAP 5: THE JOHNNY CREEK/BRUSHY CANYON PORTION OF THE UNIT, SHOWING VEHICLE WAYS, THE SAFFORD MORENCI TRAIL, AND A PORTION OF THE POTHOLE PROPOSED LWC.

DETAIL MAP 6: THE WESTERNMOST PORTION OF THE UNIT, WHERE THE BOUNDARY FOLLOWS SALT TRAP ROAD, SHOWING THE VEHICLE WAY TO TALLY WATER STORAGE TANK AT POINTS 47 AND 48. THE UPLANDS AWAY FROM THE BOUNDARY ROADS ARE WILD, PRISTINE, AND OUTSTANDING WILDERNESS COUNTRY.



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

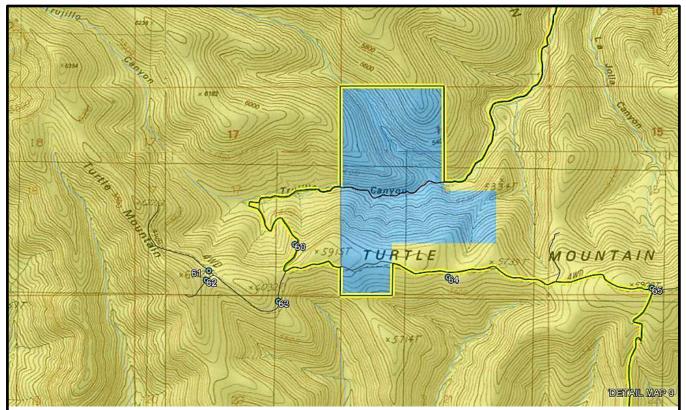


DETAIL MAP 7: SHOWING THE NORTHEASTERN PORTION OF THE UNIT; THE SAFFORD-MORENCI TRAIL GOING UP SOUTH SMITH CANYON; THE BOUNDARY FOLLOWING PRIVATE LAND IN EAGLE CREEK CANYON; AND THE TOTALLY NATURAL REGION OF HOT SPRINGS CANYON AND EASTERN TURTLE MOUNTAIN.

DETAIL MAP 8: SHOWING THE EASTERN PORTION OF THE UNIT; THE LOWER TRUJILLO CANYON BOUNDARY ROAD AND CHERRYSTEMS; AND THE OTHERWISE PRISTINE RIDGES AND CANYONS OF EASTERN TURTLE MOUNTAIN.



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



DETAIL MAP 9: SHOWING THE EASTERN PORTION OF THE UNIT; THE MIDDLE TRUJILLO CANYON BOUNDARY ROAD; AN EXCLUDED PARCEL OF STATE TRUST LAND; AND THE OTHERWISE PRISTINE RIDGES OF EASTERN TURTLE MOUNTAIN AND UPPER TRUJILLO CANYON.



Left: Photo point 61, shown on Detail Map 9, above, is an example of an unmaintained vehicle way on Turtle Mountain. This way was cherrystemmed in the 1980's WSA evaluation, but today it no longer meets the definition of a wilderness inventory road. The route dead ends at nothing and the purpose for its construction is not evident. Trujillo Canyon in the background provides outstanding opportunities for solitude within a stringer of Emory Oak and alligator juniper woodland.

Narrative Description of the Proposed LWC Boundary & Vehicle Routes

#### Segment A: East Bonita Rim Road

SEE DETAIL MAPS 1 & 2

**General Description:** The southern boundary of the Turtle Mountain Proposed LWC unit is comprised of wilderness inventory roads. Point 1 displays an image of East Bonita Rim Road, which makes up the southeastern section of the southern unit boundary.

### **Boundary Adjustments:**

-Point 4 shows East Bonita Rim Road and what we believe is a buried waterline (left side of photo) that is used for a short section of the unit boundary. The buried waterline is used as the unit boundary for a short distance because it forms a substantial scar on the land that is visible from a distance, and it may be mechanically maintained. Point 5 is a picture of the waterline farther to the northwest. This section of waterline is also used as the unit boundary for the same reasons. These waterlines run to a functional water tank called Johnny Creek Tank #17. This tank can be seen in the photo of point 4, and is excluded from the proposed LWC unit, although it only minimally affects apparent naturalness. The tank and the waterline form the unit boundary.

## **Cherrystems:**

-Point 2 displays an image of a very short cherrystemmed route that is likely to be maintained because it is used to access a rain apron and functional water tank. This cherrystem and the ranch infrastructure that it accesses were excluded from the proposed LWC unit due to the degree of human impacts on naturalness. The cherrystem ends at the water tank, and there are no other routes continuing further. A buried waterline also serves as the unit boundary.

-Point 7 depicts East Bonita Rim Road and a corral that has been excluded from the proposed LWC unit. At point 7, the unit boundary turns to the west, and East Bonita Rim Road becomes a cherrystem that continues north to access private property.

#### Ways:

-Point 3 shows an old way that has revegetated and been reclaimed by nature. This route once accessed a small steel water tank, which appears to be abandoned. It is well hidden among the vegetation and does not substantially affect the naturalness of the immense canyon beyond it.

#### **Associated Human Impacts:**

-Point 6 displays an image of a non-functional water tank (Johnny Creek Tank #18). There is no vehicular access to this empty water tank that appears to have not been used in quite some time. This water tank is slightly off the ridge in a drainage near the edge of the unit, is painted tan to blend in with the surroundings, and therefore has a minimal impact on naturalness in the area.

#### **Segment B:** East Bonita Rim & Christensen Roads Cherrystem

SEE DETAIL MAPS 2 – 4

**General Description:** Segment B is a cherrystem that is comprised of East Bonita Rim Road and Christensen Road. Point 7 depicts East Bonita Rim Road and a corral that has been excluded from the proposed LWC unit. At this point, the unit boundary turns to the west, and East Bonita Rim Road becomes a cherrystem that continues north. The route accesses some range improvements, the

Safford-Morenci Trail, and private property. This BLM-maintained road stays on the rim above Bonita Creek and below Turtle Mountain, meandering in and out of beautiful canyons that drop away into Bonita Creek. It is a scenic and adventurous drive, providing stunning vantages of the proposed LWC. It becomes Christensen Road when it turns west and drops very steeply into Bonita Creek and accesses private land (just south of point 14). Point 17 shows an image of a short easterly leg of this cherrystem that accesses water tanks.

**Boundary Adjustments:** There are two boundary adjustments along this cherrystem, which exclude small range improvements that are minor impacts in this grand landscape:

- -Point 9 shows the spring developments at Sycamore Spring, which is directly adjacent the road. This range development is excluded from the Turtle Mountain Proposed LWC unit.
- -Point 13 depicts a corral that is located directly alongside the East Bonita Rim Road (cherrystem section) that has been excluded from the LWC unit.

#### Ways:

- -Point 8 was taken looking southeast down an old way that has been reclaimed by nature. This old primitive route has revegetated and now is only a cow path.
- -Point 10 displays an image of an old primitive route that is revegetating and in the process of naturalizing. This way has no apparent purpose, and now it just a cow path.
- -Point 11 depicts a way that shows no evidence of maintenance and is kept open solely by the passage of vehicles. It dead ends at a turnaround and appears to have no purpose.
  - -Point 12 was taken looking up an old way that has been reclaimed by nature.
- -Point 14 shows a way with perennial vegetation growing in the median, indicating a lack of maintenance. This way is also the Safford-Morenci Trail, and appears to be kept open solely by the passage of vehicles. Point 15 displays an image of the Safford-Morenci Trail where vehicular use ends. The water tub in the image is out of order, and the piping connected to it is broken This tub does not substantially affect naturalness because of its small size. We believe this route should not be cherrystemmed to this water tank because it is no longer functioning. Furthermore, the equipment should be removed and the way allowed to naturalize into a more primitive character to improve the Safford-Morenci Trail.
- -Point 16 was taken looking up another old way that has revegetated and been reclaimed by nature. This may have been a water pipeline, but all remains of water systems we could locate in this area are completely abandoned.

#### Official Trails:

- Point 15 displays an image of the Safford-Morenci Trail at the point where the route has been closed to motor vehicles.
- -Point 18 was taken at a trailhead on private property where East Bonita Rim Road ends at its northern terminus; all vehicular traffic ends here as well. The road ends at a trailhead (point 18) for the

Pueblo Doval Cliff Dwelling, which can be seen in point 19. Note: the entirety of Pueblo Doval is on BLM land.

#### **Segment C:** Red Knolls Canyon Road & Ranch Infrastructure

SEE DETAIL MAPS 2 & 5

**General Description:** Red Knolls Canyon Road (point 22) makes up a portion of this section of the Turtle Mountain Proposed LWC unit boundary, along with a waterline (point 24) and a couple of unnamed wilderness inventory roads in Black Canyon (point 31, 32 & 33). The BLM route inventory data identifies Red Knolls Canyon Road as Bonita Creek Road, but all BLM signs on the ground identify the road as Red Knolls Canyon Road. It is shown on the BLM's Gila Box RNCA map as Red Knoll Road.

### **Boundary Adjustments:**

-Point 23 is a picture that shows an image of the Johnny Creek waterline that is used for a section of the proposed LWC unit boundary. Point 24 displays an image of this waterline from the top of the ridge. This pipeline is used for the unit boundary because as point 23 illustrates, portions of it were mechanically constructed and left a significant scar on the land that makes an obvious boundary feature. Furthermore, using the pipeline for this portion of the boundary allows for a water pumping structure near Bonita Creek to be excluded from the proposed LWC unit.

-The boundary between points 32 and 33 follows a route in Black Canyon. This route has not been maintained recently, but we believe it may be maintained because it connects a corral and functioning water tanks and some pipelines. There is also a breached dirt tank that may be repaired. At point 33, the unit boundary excludes the corral and properly functioning dirt tank along existing fencelines. Midway on this road there is an excluded water tank.

**Cherrystems:** There are no cherrystems along this boundary segment.

#### Ways:

-Point 20 was taken looking down an unnamed primitive route that has no apparent purpose. As the photo illustrates, this way is not being maintained, and appears to mostly be used by cows. Point 21 documents that when this way meets the drainage, it does not continue down the wash. There was absolutely no evidence of vehicular use in the dry wash.

-Points 25 & 27 depict a primitive route that is in the process of revegetating and naturalizing. This way is not maintained and leads to an abandoned, non-functional tank (point 30; note the disconnected/broken piping). Point 29 documents the end of this way, which was historically used to access an earthen tank that is now empty and revegetated.

-Points 26 & 28 document an old primitive route that is no longer used, has revegetated, and been reclaimed by nature.

#### **Associated Human Impacts:**

-Point 30 is a picture showing a non-functional cattle tank that is disconnected with a pipeline that is broken in hundreds of spots. We recommend that non-functional ranch infrastructure, such as this tank and associated broken pipes, be cleaned up and removed.

-Points 32 & 33 document a road (unit boundary) that has a number of livestock water tanks along its length. The ranch infrastructure is functional, and although this road contains no recent maintenance evidence, it is likely to be maintained by the rancher should the need arise.

**Segment D:** Salt Trap Road

SEE DETAIL MAPS 5 & 6

**General Description:** Salt Trap Road is a maintained wilderness inventory road that serves as the unit boundary for this segment. This BLM-maintained road makes a loop with Spring Canyon Road. An unnamed wilderness inventory road that accesses mine prospects, seen in point 49, serves as a short section of the proposed LWC unit boundary.

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

**Cherrystems:** Point 45 displays an image of a short wilderness inventory road. This road is used to access a large steel tank, pipeline, and troughs. This ranch infrastructure is in the wide open and affects apparent naturalness, and thus is excluded from the LWC along with the cherrystem.

#### Ways:

-Point 35 depicts a primitive route that was built to install two water tanks at a saddle. The route was constructed, but appears to have never been maintained, and it is kept open solely by the passage of vehicles. Portions of this road are severely eroded and not passable except for the most experienced drivers (see point 37). This way was once used to access Johnny Creek tanks 16 & 17, but now one of these tanks is disconnected and the other one is also empty; they both appear non-functional. Point 36 documents the fact that the pipes leading to these abandoned tanks are non-functional and broken in numerous places. Point 38 shows the condition of the primitive route beyond Johnny Creek tanks 16 & 17. As point 38 displays, this way is heavily revegetated and receives very rare vehicular use, and only by ATV's. Point 39 was taken at the other end of this primitive route, where it has been completely revegetated and reclaimed by nature; it is completely impassable by any vehicle. The BLM Range Improvement data displays the 'Farrel Cattlegaurd' near point 39, which must have been removed at some point because it is no longer there.

-USGS topographic maps display a route traveling down the bottom of the canyon along Bonita Creek. Point 40 was taken (outside of LWC unit) along this old route. As the photo demonstrates, this old route has long since revegetated and been reclaimed by nature through natural processes.

-Point 41 was taken looking up an unmaintained primitive route that is kept open solely by the passage of vehicles and accesses a dilapidated corral and water tank. The equipment appears to be out of order and abandoned. The corral is in disrepair; loading chute could not support an animal, fences in disorder, and water lines broken. Point 42 shows the condition of this route as it approaches the empty water tank. Point 43 shows the intake point for the pipeline at Johnny Spring is clogged with gravel and thus not in working order.

-Point 46 depicts an unmaintained primitive route with no apparent purpose that gets little vehicular use. It is short (just under two-tenths of a mile long) and is kept open solely by the passage of the occasional vehicle.

-Point 47 displays the image of an unmaintained way that accesses a mining claim and a water tank. This way has well-established vegetation growing in the median and is kept open solely by the

passage of vehicles. Point 48 shows the water tank, which is functional, at the end of the primitive route. As the photo in point 48 illustrates, this tank matches the natural landscape colors, and is tucked up against a cliff that acts to shield the tank from view. The Tally Camp Spring (up canyon from this water tank) has a small rock dam that is silted in and crumbling.

-Point 50 shows an old primitive route that has revegetated and been reclaimed by nature. This way may have once been used for a mining claim, but there it no longer has any apparent purpose and gets no vehicular use.

**Official Trails:** Point 34 was taken looking east along the Safford-Morenci Trail as it descends Johnny Creek towards Bonita Creek.

### **Associated Human Impacts:**

-The pipe seen in point 36 once fed Johnny Creek tanks 16 & 17 from a tank down the drainage from point 36 that the Young Adult Conservation Corp installed in 1978. The tank down stream of point 36 is not excluded from the proposed LWC unit because minimally affects naturalness as it is near the boundary road and very well-hidden in tight canyon with dense vegetative screening surrounding it. The system was set up to pump water uphill to tanks 16 & 17 which are a disconnected steel tank and a fiberglass tank, both of which are empty and because the pipeline is broken in dozens of places, they cannot be filled. These tanks should be removed and repurposed elsewhere.

-Point 42 depicts a way (discussed above with point 41) and empty water tank. There are broken plastic pipes strewn about in the creek, and the pipeline from Johnny Spring is blocked with gravel. Point 43 shows some out of order piping that is clogged with sand and has been for quite some time. The pipe is packed full with gravel and cannot catch water. While this waste should be cleaned up, it is substantially unnoticeable unless right next to it; as it is in a canyon bottom with abundant vegetative screening.

-Point 44 documents that this streambed, that was once mostly likely used to access the Hells Dive range improvements, displays no evidence of vehicular use.

#### **Segment E:** Western Boundary

SEE UNIT OVERVIEW MAP

**General Description:** The entire western LWC unit boundary is the BLM property line with private and State Trust Lands.

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

**Cherrystems:** There are no cherrystemmed roads along the western boundary.

Ways: Point 50 shows a reclaimed way that may have associated with mine prospects.

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

#### Segment F: Northern Boundary

**SEE UNIT OVERVIEW MAP** 

**General Description:** The BLM property line with the San Carlos Indian Reservation and a small private parcel, owned by the City of Safford, serves as the northern boundary for this segment.

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

**Cherrystems:** There are no cherrystemmed roads along the western boundary.

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

**Associated Human Impacts:** There are no major human impacts along this segment of the northern boundary.

**Segment G:** Northeastern Boundary

SEE DETAIL MAP 7

**General Description:** Some of the northeastern unit boundary is the BLM property line shared with State Trust Lands. Black River Road is a maintained wilderness inventory road that serves the LWC unit boundary for two short sections of this boundary segment (point 51 & 54), along with the powerline corridor that follows the road. The rest of the unit boundary is the BLM property line with private lands.

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

**Cherrystems:** There are no cherrystems along this boundary segment.

### **Ways and Official Trails:**

-Points 52 & 53 (taken outside of proposed LWC unit) display images of the Safford-Morenci Trailhead East. This trail is signed as being closed to vehicular use. The evidence suggests that vehicles have not driven on the trail in a long time. All ways and primitive routes that this trail accesses are closed to vehicular use by the public.

#### **Associated Human Impacts:**

-There is some ranch infrastructure (a corral, one water tank, and two earth-bermed tanks) that are accessed via the Safford-Morenci Trailhead East (point 52). Ranch infrastructure such as these installations can be found in existing Wilderness areas, and is not inconsistent with wilderness character. Since the access route is closed to vehicles then we are not excluding these impacts.

#### **Segment H:** Southeastern Boundary

SEE DETAIL MAPS 8, 9 & 1

General Description: The BLM property line with State Trust Lands serves as the proposed unit boundary for two portions of this boundary segment. Point 55 (taken outside of LWC unit) was taken looking up a maintained road that serves as a section of the boundary farther to the southeast. Point 65 depicts another portion of the wilderness inventory road that serves as much of the boundary in this segment. The unnamed road displayed in points 55 & 65 is a thru-road that travels all the way from Bull Gap Road to Eagle Creek. The northern half of this road was maintained in the last few years, and the southern half could be maintained again because it serves as access to two parcels of State Trust Land. Furthermore, there was a bulldozer parked on one of these parcels, indicating likely maintenance. Points 66 & 67 display more images of this unnamed wilderness inventory road (unit boundary) farther to the south. This unit boundary road contains sections with evidence of maintenance, while other sections do not appear to have been maintained in some time. Point 68 depicts a section of Bull Gap Road that serves as a portion of the unit boundary. Point 71 was taken

looking up the Bull Gap Ranch Road, which serves a section of the proposed unit boundary. Point 72 was taken looking north down a maintained wilderness inventory road that is the unit boundary.

**Boundary Adjustments:** All unit boundaries follow wilderness inventory roads or property lines.

#### **Cherrystems:**

-Point 56 shows a cherrystemmed wilderness inventory road. This cherrystem accesses a number of functional ranching improvements at the end of the road. The ranch infrastructure is also excluded from the proposed LWC unit.

-Point 57 depicts another cherrystemmed wilderness inventory road that is being maintained. This road is used to access a well and water tanks (point 58) that are at the end of the cherrystem. There is no vehicular use beyond point 58.

#### Ways:

- -Point 59 was taken looking up an old primitive route with no evidence of vehicular use. As the photo documents, this old way has revegetated and been reclaimed by nature.
- -Point 60 shows a short dead-end way that has revegetated. As the photo displays, this old way has been reclaimed by nature.
- -Point 61 depicts an unmaintained route that is slowly revegetating, and appears to be kept open solely by the passage of vehicles. The photo documents the unmaintained status of this primitive route. It dead ends and has no purpose.
- -Point 62 displays the image of anther unmaintained primitive route that has no apparent purpose.
  - -Point 63 was taken looking north up an unmaintained way that goes to an earth-bermed tank.
- -Point 64 shows and old way with no apparent purpose that has revegetated and been reclaimed by nature.
  - -Point 69 depicts another way that is in the process of revegetating and naturalizing.
- -Point 73 was taken looking northwest up an unmaintained way that is in the process of revegetating.

#### **Associated Human Impacts:**

- -Point 68 shows the Turtle Mountain Proposed LWC unit boundary. There is a corral in the background of this photograph that is excluded from the LWC unit.
- -Point 70 displays an image of a water tank along the boundary road that is excluded from the proposed LWC unit.

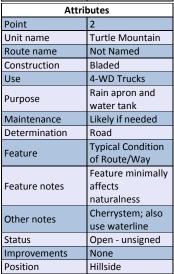
That completes the narrative description of the unit boundary and vehicle ways.

# Section 4: Photopoint Data

Attributes	
Point	1
Unit name	Turtle Mountain
Route name	East Bonita Rim Road
Construction	Bladed & Cut and Fill
Use	4-WD Trucks
Purpose	Multiple uses
Maintenance	Very recent blade - past year
Determination	Road
Feature	Typical Condition of Route/Way
Feature notes	
Other notes	Unit Boundary
Status	Open - signed
Improvements	Water bars/drainage
Position	Saddle







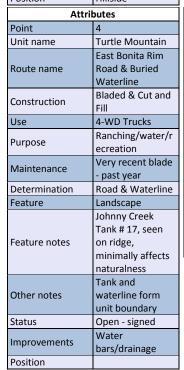




Attributes	
Point	3
Unit name	Turtle Mountain
Route name	Not Named
Construction	Probably only bladed once
Use	Cattle
Purpose	Abandoned water tank
Maintenance	None
Determination	Reclaimed
Feature	Typical Condition of Abandoned way, and hidden tank
Feature notes	Rusting steel tank is hidden in vegetation, seen above cacti in foreground.
Other notes	The canyon turns the corner and provides outstanding solitude.
Status	Reclaimed
Improvements	None
Position	Hillside











Attributes	
Point	5
Unit name	Turtle Mountain
Route name	Not Named
Construction	Probably only bladed once
Use	Off Road Vehicles
Purpose	Well/Water tanks
Maintenance	Likely if needed:Johnny Creek Tank #17 at end of route
Determination	Road/Waterline
Feature	Typical Condition of Route/Way
Feature notes	Feature minimally affects naturalness; photo is of buried waterline
Other notes	Impact excluded: buried waterline, maintenance likely.
Status	Open - unsigned
Improvements	None
Position	Hillside











Attri	Attributes	
Point	7	
Unit name	Turtle Mountain	
Route name	East Bonita Rim Road	
Construction	Bladed & Cut and Fill	
Use	4-WD Trucks	
Purpose	Multiple uses	
Maintenance	Old evidence - 3-5 years ago	
Determination	Road	
Feature	Junction of Routes	
Feature notes	Also showing excluded corral; minimally affects naturalness	
Other notes	Unit Boundary to the right, Cherrystem to the left	
Status	Open - signed	
Improvements	Water bars/drainage	
Position	Hillside	











Attributes	
Point	9
Unit name	Turtle Mountain
Route name	N/A
Construction	N/A
Use	Cattle
Purpose	Well/Water tanks
Maintenance	N/A
Determination	N/A
Feature	Livestock Watering/Feeding station
Feature notes	Sycamore Spring
Other notes	This impact is excluded.
Status	N/A
Improvements	N/A
Position	Hillside



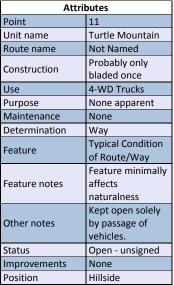


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Attributes	
Point	12
Unit name	Turtle Mountain
Route name	Not Named
Construction	Probably only
Construction	bladed once
Use	None
Purpose	None apparent
Maintenance	None
Determination	Reclaimed
Feature	Revegetated
	Feature minimally
Feature notes	affects
	naturalness
Other notes	
Status	Reclaimed
Improvements	None
Position	Hillside





Attributes	
Point	13
Unit name	Turtle Mountain
Route name	Along East Bonita Rim Road
Construction	N/A
Use	Cattle
Purpose	Corral
Maintenance	N/A
Determination	Road
Feature	Corral
Feature notes	Feature minimally affects naturalness
Other notes	Exclude this impact
Status	N/A
Improvements	N/A
Position	Hillside





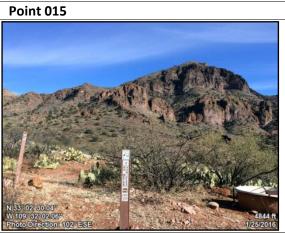








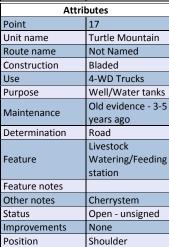




Attributes	
Point	16
Unit name	Turtle Mountain
Route name	Not Named
Construction	No evidence
Use	None
Purpose	None apparent
Maintenance	None
Determination	Reclaimed
Feature	Revegetated
Feature notes	
Other notes	Nearby water tank is dry & appears to be non-functional; all pipes are broken.
Status	Reclaimed
Improvements	None
Position	Hillside











Attributes	
Point	18
Unit name	Turtle Mountain
Route name	Trail to Pueblo Doval Cliff Dwelling
Construction	N/A
Use	Foot use
Purpose	Trail to pueblo
Maintenance	N/A
Determination	Trail
Feature	Trailhead
Feature notes	At end of Christenson Road.
Other notes	No vehicular use
Status	Open- signed
Improvements	N/A
Position	Canyon Bottom





Attributes	
Point	19
Unit name	Turtle Mountain
Route name	N/A
Construction	N/A
Use	Foot use
Purpose	Archeological
Maintenance	N/A
Determination	N/A
Feature	Ruin
Feature notes	Pueblo Doval
Other notes	Entire pueblo is
	on BLM land.
Status	Open - signed
Improvements	N/A
Position	Canyon Bottom





Attributes	
Point	20
Unit name	Turtle Mountain
Route name	Not Named
Construction	Probably only bladed once
Use	Cattle
Purpose	None apparent
Maintenance	None
Determination	Way
Feature	Typical Condition of Route/Way
Feature notes	Obvious lack of maintenance
Other notes	
Status	Open - unsigned
Improvements	None
Position	Hillside





Attributes	
Point	21
Unit name	Turtle Mountain
Route name	Not Named
Construction	No evidence
Use	None
Purpose	None apparent
Maintenance	None
Determination	Natural dry creek
Feature	Natural dry creek
Feature notes	Absolutely no vehicular use
Other notes	
Status	Natural dry creek
Improvements	None
Position	

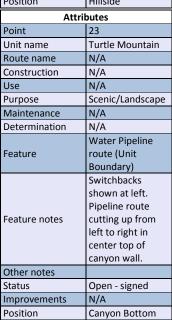




Attri	butes
Point	22
Unit name	Turtle Mountain
Route name	Red Knolls Canyon Road
Construction	Bladed & Cut and Fill
Use	4-WD Trucks
Purpose	Multiple uses
Maintenance	Semi-recent evidence - 1-3 years ago
Determination	Road
Feature	Typical Condition of Route/Way
Feature notes	
Other notes	Unit Boundary
Status	Open - signed
Improvements	Water bars/drainage; cattle guards
Position	Hillside
Attributes	

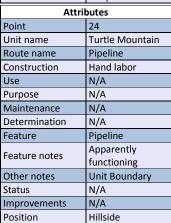




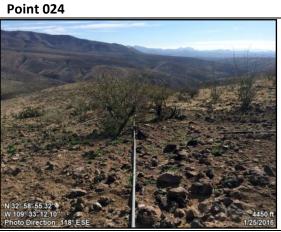
























Attributes	
Point	27
Unit name	Turtle Mountain
Route name	Not Named
Construction	Probably only bladed once
Use	Off Road Vehicles
Purpose	Well/Water tanks
Maintenance	None
Determination	Way
Feature	Typical Condition of Route/Way
Feature notes	Narrow, vegetated, off- camber; broken pipes strewn along route
Other notes	Kept open solely by passage of vehicles. In many places, route is barely wide enough for a Toyota Tacoma.
Status	Open - unsigned
Improvements	None
Position	Hillside







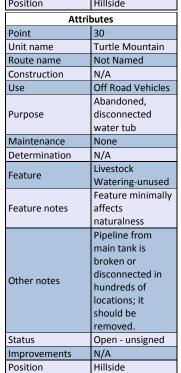




Attributes	
Point	29
Unit name	Turtle Mountain
Route name	Not Named
Construction	Probably only bladed once
Use	None
Purpose	Construction access to reservoir
Maintenance	None
Determination	Reclaimed
Feature	Typical Condition of Abandoned Route
Feature notes	Feature minimally affects naturalness
Other notes	Reservoir dry, fully revegetated; not likely to hold water
Status	Revegetated
Improvements	None
Position	Hillside







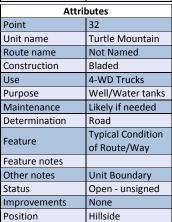




Attri	butes
Point	31
Unit name	Turtle Mountain
Route name	Not Named
Construction	Bladed & Cut and Fill
Use	4-WD Trucks
Purpose	Water tank, trough, and pipeline
Maintenance	Likely if needed
Determination	Road
Feature	Livestock Watering/Feeding station
Feature notes	
Other notes	This impact is excluded
Status	Open - unsigned
Improvements	None
Position	Hillside











Attributes		
Point	33	
Unit name	Turtle Mountain	
Route name	Not Named	
Construction	Bladed	
Use	4-WD Trucks	
Purpose	Corral & reservoir	
Maintenance	Likely if needed	
Determination	Road	
Feature	Corral	
Feature notes	This impact is excluded	
Other notes	Unit Boundary	
Status	Open - unsigned	
Improvements	None	
Position	Valley Bottom	

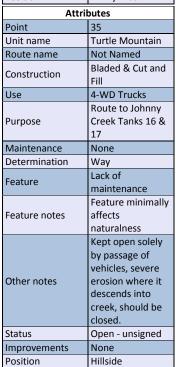




Attributes	
Point	34
Unit name	Turtle Mountain
Route name	Safford-Morenci Trail
Construction	Hand labor
Use	Foot use
Purpose	Recreation
Maintenance	Likely if needed
Determination	Trail
Feature	No motorized use
Feature notes	Feature minimally affects naturalness
Other notes	Sign has been vandalized.
Status	Open - signed
Improvements	None
Position	In Dry Wash













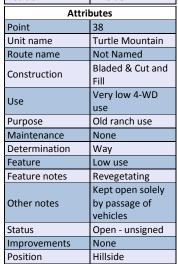




Attributes	
Point	37
Unit name	Turtle Mountain
Route name	Not Named
Construction	Bladed & Cut and Fill
Use	4-WD Trucks
Purpose	Well/Water tanks
Maintenance	None
Determination	Way
Feature	Erosion
Feature notes	Worst section of route
Other notes	Kept open solely by passage of vehicles
Status	Open - unsigned
Improvements	None
Position	Hillside











Attributes	
Point	39
Unit name	Turtle Mountain
Route name	Not Named
Construction	Probably only bladed once
Use	None
Purpose	Private land access/abandone d
Maintenance	None
Determination	Trail
Feature	Typical Condition of Route/Way
Feature notes	
Other notes	Farrell cattle gaurd not found
Status	Reclaimed
Improvements	None
Position	Hillside

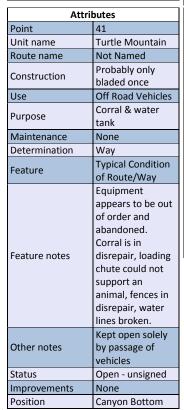




Attributes	
Point	40
Unit name	Turtle Mountain
Route name	Not Named
Construction	No evidence
Use	None
Durance	Once accessed
Purpose	private land
Maintenance	None
Determination	Reclaimed
Feature	Revegetated
Feature notes	Reclaimed by
	nature.
Other notes	Some maps show
	an old road here.
Status	Reclaimed
Improvements	None
Position	Canyon Bottom







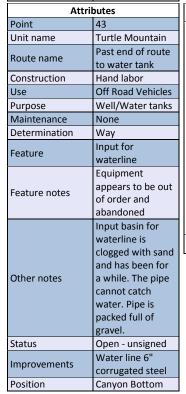




Attri	butes
Point	42
Unit name	Turtle Mountain
Route name	Not Named
Construction	No evidence
Use	Off Road Vehicles
Purpose	Water tank- abandoned
Maintenance	None
Determination	Way
Feature	Typical Condition of Route/Way
Feature notes	Equipment appears to be out of order and abandoned- tank is empty, plastic pipes broken and strewn about in creek, pipeline from spring blocked with gravel.
Other notes	Kept open solely by passage of vehicles
Status	Open - unsigned
Improvements	None
Position	Canyon Bottom







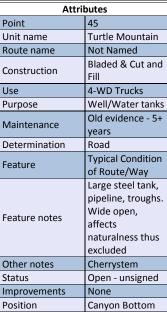




Attributes	
Point	44
Unit name	Turtle Mountain
Route name	Not a route
Construction	No evidence
Use	None
Purpose	Natural canyon and creek
Maintenance	N/A
Determination	Natural Wash
Feature	Showing no vehicle access to Hells Dive range improvements
Feature notes	
Other notes	Sycamore, oaks, running water
Status	N/A
Improvements	N/A
Position	Canyon Bottom

















Attri	butes
Point	47
Unit name	Turtle Mountain
Route name	Not Named
Construction	Probably only
Construction	bladed once
Use	4-WD Trucks
Durance	Well/Water tanks,
Purpose	mining claim
Maintenance	None
Determination	Way
Feature	Junction of
reature	Routes/Ways
Feature notes	Feature minimally
	affects
	naturalness
	Kept open solely
Other notes	by passage of
	vehicles
Status	Open - unsigned
Improvements	None
Position	Canyon Bottom
Attributes	
Daint	40

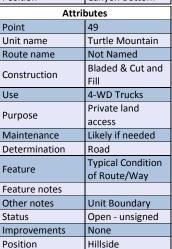












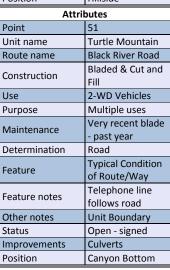




Attributes	
Point	50
Unit name	Turtle Mountain Complex
Route name	Not Named
Construction	Bladed & Cut and Fill
Use	None
Purpose	Historic Prospecting
Maintenance	None
Determination	Reclaimed
Feature	Revegetated
Feature notes	Reclaimed by nature.
Other notes	Naturalized impact minimally affects naturalness.
Status	Reclaimed
Improvements	None
Position	Hillside
Attributes	
Point	51













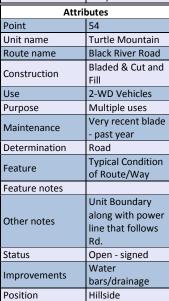




Attri	butes
Point	53
Unit name	Turtle Mountain
Route name	Safford-Morenci Trail
Construction	Bladed & Cut and Fill
Use	Foot use
Purpose	Recreation/ranchi ng
Maintenance	None
Determination	Trail
Feature	Typical Condition of Route/Way
Feature notes	Absolutely no signs of vehicle use in a long while
Other notes	
Status	Closed to motor vehicles
Improvements	None
Position	Canyon Bottom
Attributes	
Point	54
Unit name	Turtle Mountain

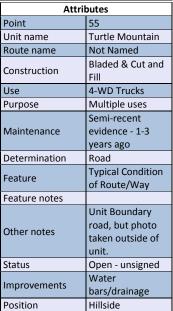
















Attributes	
Point	56
Unit name	Turtle Mountain
Route name	Not Named
Construction	Bladed
Use	4-WD Trucks
Purpose	Well/Water tanks
Maintenance	Semi-recent
	evidence - 1-3
	years ago
Determination	Road
Feature	Typical Condition
reature	of Route/Way
	Solar panels and
Feature notes	ranching objects
reature notes	at end of
	cherrystem.
Other notes	Cherrystem
Status	Open - unsigned
Improvements	None
Position	Hillside





Attributes		
Point	57	
Unit name	Turtle Mountain	
Route name	Not Named	
Construction	Bladed	
Use	4-WD Trucks	
Purpose	Well/Water tanks	
	Semi-recent	
Maintenance	evidence - 1-3	
	years ago	
Determination	Road	
Feature	Typical Condition	
	of Route/Way	
Feature notes		
Other notes	Cherrystem. No	
	mine noise or	
	sights.	
Status	Open - unsigned	
Improvements	None	
Position	In Dry Wash	
An de Lee		





Attributes	
Point	58
Unit name	Turtle Mountain
Route name	Not Named
Construction	Bladed & Cut and Fill
Use	4-WD Trucks
Purpose	Well/Water tanks
Maintenance	Semi-recent evidence - 1-3 years ago
Determination	Road
Feature	Livestock Watering/Feeding station
Feature notes	
Other notes	Cherrystem & this impact excluded. Large berm blocking upstream travel. No other impacts beyond tank.
Status	Open - unsigned
Improvements	None
Position	In Dry Wash







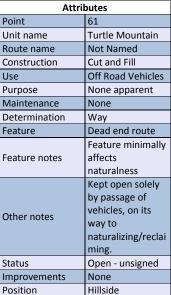




Attributes	
Point	60
Unit name	Turtle Mountain
Route name	Not Named
Construction	Cut & Fill
Use	None
Purpose	None apparent
Maintenance	None
Determination	Reclaimed
Feature	Dead end
reature	abandoned route
	Feature minimally
Feature notes	affects
	naturalness
Other notes	Dead ends at
	nothing in a few
	hundred feet
Status	Reclaimed
Improvements	None
Position	Hillside











Attributes	
Point	62
Unit name	Turtle Mountain
Route name	Not Named
Construction	Bladed & Cut and Fill
Use	None
Purpose	None apparent
Maintenance	None
Determination	Way
Feature	Typical Condition of Route/Way
Feature notes	Feature minimally affects naturalness
Other notes	
Status	Open - unsigned
Improvements	None
Position	Shoulder





Attributes		
Point	63	
Unit name	Turtle Mountain	
Route name	Not Named	
Construction	Cut and Fill	
Use	4-WD trucks	
Purpose	Earthen-bermed	
	tank	
Maintenance	None	
Determination	Way	
Feature	Typical Condition	
	of Route/Way	
Feature notes		
Other notes		
Status	Open - unsigned	
Improvements	None	
Position	Hillside	

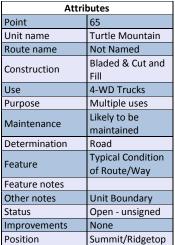




Attributes	
Point	64
Unit name	Turtle Mountain
Route name	Not Named
Construction	Probably only bladed once
Use	None
Purpose	None apparent
Maintenance	None
Determination	Reclaimed
Feature	Revegetated
Feature notes	Feature minimally affects naturalness
Other notes	
Status	Reclaimed
Improvements	None
Position	











Attributes	
Point	66
Unit name	Turtle Mountain
Route name	Not Named
Construction	Bladed & Cut and Fill
Use	4-WD Trucks
Purpose	Multiple uses
Maintenance	Likely if needed
Determination	Road
Feature	Typical Condition of Route/Way
Feature notes	
Other notes	Unit Boundary
Status	Open - unsigned
Improvements	Water bars/drainage
Position	Hillside





Attributes	
Point	67
Unit name	Turtle Mountain
Route name	Not Named
Construction	Bladed & Cut and Fill
Use	4-WD Trucks
Purpose	Multiple uses
Maintenance	Old evidence - 3-5 years ago
Determination	Road
Feature	Typical Condition of Route/Way
Feature notes	
Other notes	Unit Boundary
Status	Open - unsigned
Improvements	Water bars/drainage
Position	Hillside

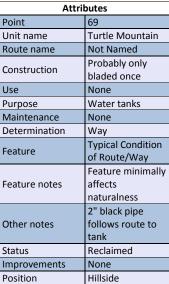




Attributes	
Point	68
Unit name	Turtle Mountain
Route name	Not Named
Construction	Bladed & Cut and Fill
Use	4-WD Trucks
Purpose	Multiple uses
Maintenance	Very recent blade - past year
Determination	Road
Feature	Corral
Feature notes	Feature minimally affects naturalness
Other notes	Unit Boundary. Corral in background is excluded.
Status	Open - signed
Improvements	Water bars/drainage
Position	Canyon Bottom

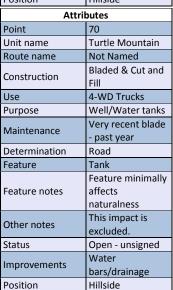
















Attributes	
Point	71
Unit name	Turtle Mountain
Route name	Bull Gap Ranch Road
Construction	Bladed & Cut and Fill
Use	4-WD Trucks
Purpose	Well/Water tanks
Maintenance	Very recent blade - past year
Determination	Road
Feature	Closure point
Feature notes	
Other notes	Unit Boundary
Status	Closed - gated
Improvements	Water bars/drainage
Position	Hillside















