Proposed Lands with Wilderness Characteristics:

Burns Spring

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

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Cover photo: Looking down into Burns Spring Canyon from BLM Route 7743. The spring itself and a stretch of the riparian woodland are on private land, but a small stream quickly flows into the proposed LWC. All photos in this report were taken by the authors.

PREFACE: This Proposal was developed according to BLM Manual 6310

General Overview

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

In March 2012, the Bureau of Land Management issued updated manuals for inventorying and managing lands with wilderness characteristics on public lands (hereafter often referred to as LWC's). These manuals provide the agency with direction for implementing its legal obligations to inventory and consider management of lands with wilderness characteristics, including the Federal Land Policy and Management Act's provision that BLM "preserve and protect certain public lands in their natural condition" (43 U.S.C. § 1701(a)(8)). **Manual 6310** (Conducting Wilderness Characteristics Inventory on BLM Lands) guides the BLM on how to meet its obligations to inventory for and identify lands with wilderness characteristics. **Manual 6320** (Considering Lands with Wilderness Characteristics in the BLM Land Use Planning Process) guides the BLM on the options available to address lands with wilderness characteristics in land use planning once they have been identified in the required inventory, such as putting management prescriptions in place to protect wilderness characteristics. The purpose of this report is to provide the BLM with recommendations for designation of Lands with Wilderness Characteristics in the Kingman Resource Area of northwestern Arizona, based on new, accurate, and up-to-date information according to **Manual 6310.**[2]

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

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

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

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

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

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

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

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

- **Size**

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

- **Naturalness**

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

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

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

- **Outstanding opportunities for either solitude or primitive and unconfined recreation**

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

- **Supplemental values**

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

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

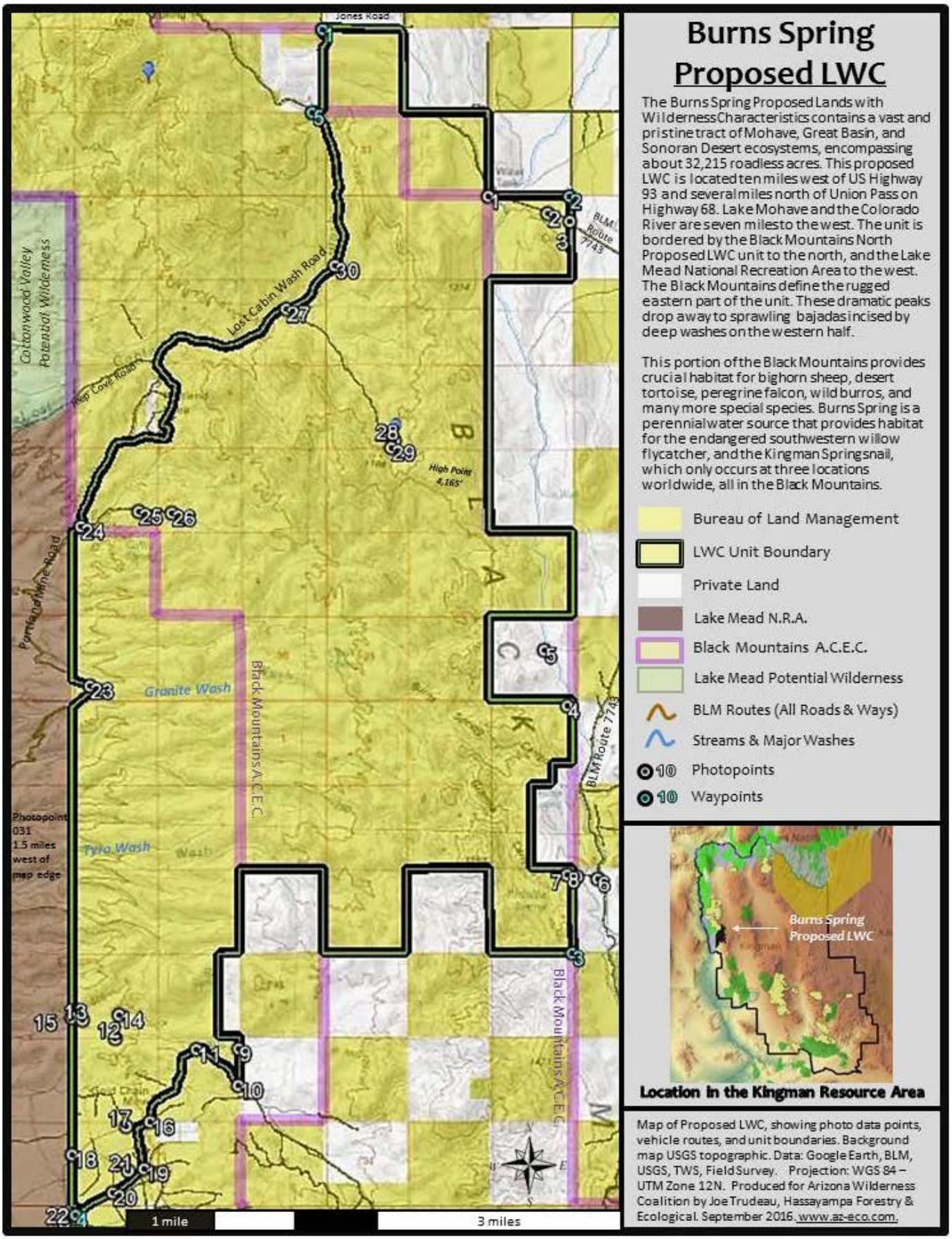
Boundaries should be based on wilderness inventory roads and naturalness rather than opportunities for solitude or primitive and unconfined recreation. For inventorying wilderness characteristics, BLM will use the "road" definition from FLPMA's legislative history; the term "road" and "wilderness inventory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

- "Wilderness inventory roads" are routes which have been: (1) *improved and maintained* (when needed), (2) *by mechanical means* (but not solely by the passage of vehicles), (3) *to insure relatively regular and continuous use*.

- "Primitive routes" or "ways" are transportation linear features located within areas that have been identified as having wilderness characteristics and not meeting the wilderness inventory road definition.

Lands between individual human impacts should not be automatically excluded from the area; no setbacks or buffers allowed; boundaries should be drawn to exclude developed rights-of-way; "undeveloped rights-of-way and similar possessory interests (e.g.,as mineral leases) are not treated as impacts to wilderness characteristics because these rights may never be developed"; areas can have wilderness characteristics even though every acre within the area may not meet all the criteria.

MAP: Burns Spring Proposed Lands with Wilderness Characteristics (LWC)



Map of Proposed LWC, showing photo data points, vehicle routes, and unit boundaries. Background map USGS topographic. Data: Google Earth, BLM, USGS, TWS, Field Survey. Projection: WGS 84 – UTM Zone 12N. Produced for Arizona Wilderness Coalition by Joe Trudeau, Hassayampa Forestry & Ecological. September 2016. www.az-eco.com.

SECTION 1: General Overview

Unit Location

The Burns Spring Proposed Land with Wilderness Characteristics unit contains a vast and pristine tract of Mohave Desert ecosystem, encompassing about 32,215 roadless acres. This proposed LWC is located ten miles west of US Highway 93 and several miles north of Union Pass on Highway 68. Lake Mohave and the Colorado River are seven miles to the west. The unit is bordered by the Black Mountains North Proposed LWC unit to the north (across Lost Cabin Wash Road), and it is contiguous with Lake Mead National Recreation Area to the west. The Black Mountains define the rugged eastern highlands of the unit. These dramatic peaks drop to the west to sprawling creosote bajadas dissected by deep washes and canyons.

Brief Boundary Description

The Burns Spring Proposed LWC is bounded on the northwest by Portland Mine Road, and the north by Lost Cabin Wash Road and private property. The northeast, east, southeast and most of the south boundary follows the property division between BLM and private property. The southwestern portion of the boundary follows wilderness inventory roads (BLM Routes 7868, 7835, and some un-numbered routes). The western boundary is the property line between BLM and the adjacent National Recreation Area, and portions of Portland Mine Road. Some of the BLM lands surrounding Portland Mine were excluded because of the mine's effects on naturalness. The excluded area follows routes and/or excavations related to the mining.

Landforms & Biological Communities

The Burns Spring Proposed LWC unit is in the northwestern area of the Kingman Resource Area, encompassing the remote and largely undeveloped central portion of the Black Mountains, a rugged volcanic mountain range. The crest of the range runs generally in a north-northwest to south-southeasterly direction, featuring a west-facing escarpment that drops ~2,500 feet from the unit's highest point (4,165 ft.) down toward the Colorado River and Lake Mohave on the west. This directional orientation of the range follows three major high angle faults that run perpendicular to the general slope of the land towards the Colorado River. The effect of erosion occurring across this fault zone is the formation of three major drainage systems: Portland Wash in the north, Granite Wash in the middle, and Tyro Wash in the south. These three wash systems cut deep into the mountains and form a dozen significant canyons which expand into more than twenty deep incisions into the wrinkled western bajada.

The unit features two periods of geologic activity. The mountainous eastern half of the unit, featuring steep ridges, isolated peaks, and meandering canyons that form the Black Mountains is composed of Middle Miocene to Oligocene Volcanic Rocks which erupted in a series of volcanic events from 15-25 million years ago. These rocks include feldspar- and quartz-rich lavas, extensive tuff flows (volcanic ash), fine-grained intrusives, and pyroclastic flows. Generally, the easternmost highlands consist of basaltic lava flows, the central section consists of intrusives and tuffs, and the lowest, western bands of rocks are pyroclasts and tuffs. The very lowest slopes within the unit are composed of Quaternary Surficial Deposits, which consist primarily of sands, silts, clays, and gravels in alluvial terraces in Granite

Wash and Tyro Wash, representing the past few million years of erosion and slope retreat in the Black Mountains (Arizona Geological Society, 2000).

The proposed LWC unit is characterized by the Mohave Desert Scrub biotic community and elements of the Great Basin conifer woodland at the highest areas. These plant communities are shrub dominated arid lands, as opposed to cacti-dominated, although many cacti do occur in this unit at lower elevations. Creosote bush and white bursage are widespread and common in a variety of soils and positions. The Mohave yucca is widespread at middle to higher elevations, mixing with juniper, banana yucca, and prickly-pear cacti and other plants common to mid elevation Sonoran deserts. Juniper savannas define the highest plateaus and mesas. A wide variety of forbs, grasses, and low shrubs and cacti occur throughout the unit, and catclaw and mesquite typically occur along washes.

Water and riparian resources provide a particularly valuable ecological component within the Burns Spring Proposed LWC. Burns Spring, which lies just outside of the proposed LWC, supplies perennial water flows to Burns Spring Canyon which contains one mile of mature riparian forest within the proposed LWC unit. Cottonwoods, willows, and walnuts are among some of the tree species to be found in the canyon, along with a diversity of riparian herbs and forbs. Other water resources include Chalk Spring, Calles Spring, Rhyolite Spring, which are all located within the Burns Spring Proposed LWC. Springs such as these provide additional wildlife habitat and ecosystem services that bolster the ecological value of the proposed LWC. These springs offer unique opportunities for spring study and restoration.

Previous Wilderness Inventories

The proposed LWC was recognized as “AZ-020-10” by the Bureau of Land Management in the agency's own Wilderness Review, published in May of 1980, and for this inventory we have continued the use of the agency's assigned name of Burns Spring. That intensive inventory concluded that this unit, containing 29,961 acres, would be proposed as a Wilderness Study Area (BLM, 1980a). When the final EIS for the Proposed Mohave Desert Wilderness Areas was released, the preferred alternative was the designation of a 23,000 acre Wilderness Area. This reduced acreage excluded an extensive area that was planned to be used for the expansion of Portland Mine. Three sections on the eastern edge were excluded because they were surrounded by private land on three sides and determined by BLM to be unmanageable. Also, the lower end of Tyro Wash was excluded to maintain vehicle access to Lake Mohave and provide for the creation of an open-pit mine (BLM, 1989).

In the last 35 years since this unit was proposed as Wilderness, nothing substantive has been occurred that would degrade that condition, in fact, the BLM's ownership has expanded, and resource extraction activities have declined. Portland Mine, which was expected to expand, actually became inactive in 1989, and the new mining never occurred. Currently, there is no vehicle access into Tyro Wash since the access point at Portland Mine Road was closed (see Photopoint 31) and there appears to be no way to access it from private lands to the east . A road bed still exists that crosses the unit, but access cannot be gained. Also, the closed route is not included in the BLM Route Inventory. It is likely that this route was developed to facilitate the mineral prospecting discussed in the Mohave Final EIS, but it has since been abandoned. The “unmanageable” sections along the eastern boundary are rightfully

included in this proposal. These sections are contiguous with and similar to the vast wild country of the proposed LWC, and are not essential to keep open to non-wilderness uses. Photopoints 1-7 show lightly used and revegetating primitive routes that have not been maintained for decades and do not provide essential access to any infrastructure that can't be reached from routes outside of the proposed LWC. Because of these current conditions we maintain that the full 32,215 acres of our proposal be considered eligible for LWC designation.

SECTION 2: Wilderness Characteristics

The proposed LWC meets the minimum size criteria for roadless lands

The Burns Spring Proposed LWC contains approximately 32,215 contiguous roadless acres under BLM ownership. The unit is on average about 5 miles wide (east to west) and 14 miles long (north to south). The proposed LWC bounds include wilderness inventory roads and BLM property lines. The Portland Mine and its area of impact, located outside of the proposed LWC to the northwest, were excluded from the proposed LWC because of the negative impact to the units' exceptional state of naturalness. There are no inholdings located within the Burns Spring Proposed LWC, which adds to the simplicity and appeal of designating, and subsequently, managing this area as an LWC.

The proposed LWC is affected primarily by the forces of nature

Primitive Routes

Relatively few primitive routes (ways) enter into the unit. These routes, described in detail in Section 3, are lightly used, single lane two-tracks that do not penetrate deep into the core of the unit. An abandoned route crosses the unit from Photopoint 31, but this has been closed by the National Park Service and no use can be attained from private lands to the east. It is our determination that the existence of these routes does not substantially affect the wilderness user experience.

Ranch Infrastructure

There is very little ranch infrastructure located within the Burns Spring Proposed LWC. The lack of notable impacts speaks to the naturalness of the proposed LWC and for its outstanding wilderness character. It is highly unusual for such a large piece of wildland to be so untouched by the effects of cattle. The infrastructure that does exist is located at the very edges of the proposed LWC unit, and is substantially unnoticeable to the average person that visits the Burns Spring area to enjoy its natural beauty. Only two cattle tanks were located during the Arizona Wilderness Coalition's inventory of the Burns Spring Proposed LWC. The first is the water tank located to the north of Photopoint 1. In fact, only half of the corral associated with this water tank is on BLM property, while the tank itself is on private land. The second water tank can be seen in Photopoint 30 along Lost Cabin Wash Road. This water tank is literally on the edge of the proposed LWC boundary; just barely within the unit. It is our determination that the existence of these installations does not substantially affect the wilderness user experience.

Wildlife Water Catchments

In cooperation with the Arizona Desert Bighorn Sheep Society, Arizona Game & Fish Department has constructed 25 water catchments in the Black Mountains to primarily benefit the desert bighorn sheep herds. The Lost Cabin water catchment (Water ID: 877) was built in May of 1987 and is the only

installation located within the Burns Spring Proposed LWC unit, and can be seen in Photopoint 28. These AZGFD installments are built to blend in with the surroundings, and are often painted to match the local rocks. Currently, AZGFD maintains catchments in several of the existing wilderness areas in the Kingman Resource Area. It is our determination that, because such installments can be accommodated within LWCs, this one in particular does not substantially affect the naturalness of the unit and can be effectively managed within the LWC context.

Inactive Mining

No active mining or prospecting is currently occurring within the proposed LWC. Three inactive mining areas were documented. The Portland Mine is currently not active, it closed in 1989. The extensive digging and probability that it may reopen caused us to exclude the immediate area around the mine from the proposed LWC. The Gold Chain Mine existed in the southernmost ear of the unit and was explored and mined in the first half of the 20th century. The very minimal diggings are revegetating with native plants and do not create a substantial visual impact to the casual visitor, and vehicle routes that may have been constructed during this era are now unmaintained and detract little from the overall naturalness of the entire area (see Photopoints 16, 17, 18, and 21). The Tyro Wash route, discussed earlier, is closed and revegetating. Claim stakes occur within this area at claim corners, but no active mineral exploration is currently underway. The presence of mineral claims does not affect naturalness, as "*undeveloped possessory interests (e.g., mineral leases) are not treated as impacts to wilderness characteristics because these rights may never be developed*" (BLM Manual 6310, page 10).

Summary of Human Impacts

Collectively, the impacts documented above do not substantially detract from the naturalness of the Burns Spring Proposed LWC. Human impacts and most of the primitive routes are confined to a relatively small area in the southern part of the proposed LWC. In general, there is almost a complete lack of evidence of human activity or impact across this remote landscape; indicating that it is without a doubt affected primarily by the forces of nature.

This photograph was taken looking east into the proposed LWC unit from Portland Mine Road. The eastern boundary of the unit is beyond the skyline ridge. There are no detectable human impacts in this scene.

The proposed LWC provides outstanding opportunities for solitude or primitive & unconfined recreation

The Burns Spring Proposed LWC unit lies in a truly wild and remote region. The roughly 32,215 acres of deep canyons, convoluted mountains, and profuse, winding desert washes come together to create a landscape rich in outstanding opportunities to find seclusion, silence, and adventure. During January of 2015, the AWC team spent three days inventorying and observing the landscape of this proposed LWC, and in our time there, we did not observe any other people within the proposed unit. This landscape offers exceptional terrain and natural features for primitive recreation such as hunting, birdwatching, wildlife observation, nature photography, peakbagging, canyoneering, horsepacking, and backpacking. The BLM's own intensive inventory states:

> "*The diverse topography within the rugged and highly dissected mountains, the deep washes, and the remote location provide an outstanding opportunity for solitude and primitive and unconfined recreation. We propose that this unit undergo wilderness study*" (BLM, 1980a: p. 71).

The northern and eastern portions of the unit are comprised of rugged volcanic peaks of the central Black Mountain Range. This steep, rocky escarpment forms the headwaters of Granite Canyon, Burns Spring Canyon, Tyro Wash, and their many feeder drainages. Rising to elevations ranging from 3,500 to 4,165 feet, these uplands are as much as 2,400 feet higher than the rolling bajadas that define the southern and western portions of the unit. Flat-topped basalt mesas, cloaked with juniper woodlands and savannas, define the northern peaks. To the south, erosion of the volcanic tablelands has revealed a wrinkled landscape of slickrock domes, jagged ridgelines, and isolated spires tinged with a mix of Mojave and Sonoran desert vegetation. Abundant outstanding opportunities exist for exploration of truly remote and isolated peaks, many of which provide challenges to even the most experienced desert mountaineers. The BLM's 1989 Final EIS for Sonoran Desert Wilderness Areas states:

> "*Pitches of varying degrees of difficulty provide opportunities and challenges for the everyday mountain climber or the technical rock climber. In summary, this area's diverse opportunities are outstanding for primitive and unconfined recreation*" (BLM, 1989: p.78)

These mountains and ridges are incised by more than thirty canyons and washes that fall away to the west, towards the Colorado River. The backcountry traveler can find ample solitude among the dozens of parallel meandering drainages, each separated by windswept ridges that rise 200-300 feet above the wash. Most of these washes leave the unit at the boundary of Lake Mead National Recreation Area, and many continue for miles before crossing Portland Mine Road. Several springs within the proposed LWC (Calles Spring, Chalk Spring, and Rhyolite Spring) provide pockets of rich riparian vegetation and seasonal water flows. Along the eastern edge of the unit, Burns Spring provides abundant discharge, which creates a vibrant ribbon of riparian habitat that stretches for more than a mile into the unit. These potential water sources provide an essential resource for backpackers, horse packers, or hearty day hikers. The water flowing from Burns Spring delivers outstanding recreational opportunities to observe, enjoy, and be in the midst of exceptional riparian habitat; the rarest ecosystem in the southwest (Zaimes et. al, 2007). There are abundant camping opportunities with magnificent views of the Colorado River and beyond into Nevada's stunning Newbury Mountains; or more secluded vistas with immediate views of the craggy Black Mountains. "*The red volcanic rocks blackened with desert varnish, and the yellow outcrops of limestone that forms the jagged cliffs and steep canyons present*

colorful backdrops for the photographer or hiker" (BLM, 1989: p.77). If one is looking for time alone to ponder the wonders of nature and the magnificence of existence, the Burns Spring Proposed LWC is a superb place to go.

The proposed LWC has supplemental values that enhance the wilderness experience & deserve protection

From local and regional perspectives, the Black Mountains are an extremely important mountain range, providing critical habitat for animal species, and wilderness-quality lands near Proposed Wilderness in Lake Mead National Recreation Area. The ecological values that the Burns Spring Proposed LWC provides in the Black Mountain region are quite significant. A large number of wildlife species depend on the natural habitats that this area provides.

The proposed LWC would protect a portion of an Area of Critical Environmental Concern

Approximately 20,000 acres of the Burns Spring Proposed LWC are encompassed by the Black Mountains Ecosystem Management ACEC. This special management area is protected for premiere bighorn sheep and wild burro habitat, federal candidate plant species habitat, outstanding scenic values, open space near major population centers, and rare and outstanding cultural resources (BLM, 1993).

The proposed LWC would protect crucial Bighorn Sheep habitat

"*Desert bighorn sheep (Ovis Canadensis nelsoni)... are considered important resources of national significance*" (BLM, 1993: p. 99). "*The Black Mountains are widely recognized as critical to the welfare and continued existence of desert bighorn sheep. This mountain range is home to the largest desert bighorn sheep herd in North America and contains crucial habitat for this species. The Black Mountains contain the largest contiguous block of desert bighorn sheep habitat in Arizona. This area provides all of the habitat requirements of desert bighorn sheep in an optimal arrangement. Topographic relief provides the essential escape habitat for bighorns through much of the mountain range. Perennial springs provide abundant water over much of the range*" (Kingman Resource Management Plan, 1993: p. 83).

Manmade water developments have improved the quality of bighorn sheep habitat by making water available to bighorn year-round. The predominately public ownership of the Black Mountains has protected them from significant habitat disturbance (BLM, 1993). Furthermore, this herd has been used as a source for reestablishment of bighorn sheep populations in other areas where they have been extirpated (BLM, 1993). Because of the relatively robust population, the Black Mountains may provide some of the best bighorn sheep hunting prospects within the entire state.

The proposed LWC would protect outstanding Wild Burro habitat

The Black Mountains also provide habitat for wild burros, in fact, "t*he Black Mountains have been identified as one of the BLM's outstanding wild burro herd areas in the West*" (BLM, 1993: p. 87) and are managed as a special herd management area by the BLM. Our AWC survey team encountered several herds of wild burros along Lost Cabin Wash Road.

The proposed LWC would protect crucial Desert Tortoise habitat

The abundance of washes (over thirty) within the Burns Spring Proposed LWC unit also provides crucial desert tortoise habitat; according to BLM: "*washes are crucial to tortoise survival in the Black Mountains because of a lack of suitable cover elsewhere*" (BLM, 1993). Most of the unit is classified as category III desert tortoise habitat.

The proposed LWC would protect significant archaeological & cultural resources

The Black Mountains Ecosystem Management Area of Critical Environmental Concern provides special management for significant prehistoric and historic sites and also protects the range from increasing vandalism and helps to preserve it for scientific and educational purposes (BLM, 1993). "*The Black Mountains range in Mohave County represents the resource area's most significant and abundant known prehistoric rock shelters, rock art, and other cultural sites*" (BLM, 1993: p. 74) and cultural important sites "probably exist" within the proposed LWC but there has been insufficient inventory work (BLM, 1989: p. 80).

The proposed LWC would protect habitat for sensitive plants and animals

The proposed LWC provides habitat for a range of species, many of which have not been officially recognized as occurring at this part of the Black Mountains. The Arizona Heritage Data Management System's records for known special status species occurrences in the Black Mountains suggest that there is appropriate habitat within the proposed LWC such that many of these species may in fact occur within the unit, including eleven vascular plants (*Castilleja minor spiralis, Senna armata, Selinocarpus nevadensis, Arctomecon californica, Stillingia linearifolia, Tetradymia stenolepis,* Chrysotha mnus *teretifolia, Petalonyx nitidus, Enceliopsis argophylla, Opuntia echinocarpa, Purshia glandulosa*), ten bats (Allen's Big-eared Bat, Big Brown Bat, Brazilian Free-tailed Bat, California Leaf-nosed Bat, California Myotis, Fringed Myotis, Greater Western Bonneted Bat, Townsend's Big-eared Bat, Pallid Bat, and the Western Pipistrelle), two raptors (peregrine falcon and zone-tailed hawk), and a reptile, the ever-charming Gila monster (AZGFD, 2007; AZGFD, 2013). The Cerbat beard-tongue (*Penstemon bicolor* ssp. *roseus*), a federal candidate Category 2 species, was collected at Burns Spring and along Lost Cabin Wash Road in 1989 (BLM, 1993: p. 99). The proposed LWC provides up to "*19,200 acres of suitable peregrine falcon, along with suitable habitat for the desert tortoise and Gila monster and for the Gilbert's skink in dry and wet canyons in association with turbinella oak*" (BLM, 1989: p. 79).

The proposed LWC would protect important riparian habitat related to Burns Spring

Burns Spring flows into the proposed LWC in Burns Spring Canyon. The perennial water sustains a richly diverse riparian forest that reaches for about one mile into the proposed LWC. Streamside habitats are among the rarest and most threatened ecosystems in the entire State of Arizona, amounting to less than 1% of the land area. The importance of these areas is disproportionate to their occurrence because of their multiple benefits, such as providing recreational amenities, habitat and travel corridors for wildlife, livestock grazing and their influence on water quality and quantity (Zaimes et. al, 2007). Additionally, Burns Spring and the riparian ecosystem that it creates provide essential

habitat for many species, and the only potential habitat for the endangered southwestern willow flycatcher in the Black Mountains, away from the Colorado River (BLM, 1996).

The Kingman springsnail (*Pyrgulopsis conica*) is endemic to the Black Mountains and has only been found at Burns Spring, Cool Spring, and Dripping Spring. The springsnail was collected in Burns Spring Canyon in 1989 (BLM, 1993). This tiny aquatic species is dependent on consistent habitat conditions and is at risk of extinction because of its restricted geographic distribution, human development of springs, and groundwater depletion with attendant loss of spring flow (AZGFD, 2003; Hershler & Landye, 1988). The survival of the springsnail could depend on whether or not the Burns Spring unit is designated as an LWC, which would protect its habitat from land use conversion and groundwater depletion. Because Burns Spring Canyon provides critical habitat for this snail, and potential habitat for the southwestern willow flycatcher, The Nature Conservancy has identified the canyon as a top conservation priority for the Mohave Desert Ecoregion (TNC, 2001), and LWC protection would ensure that this crucial habitat is preserved intact.

The proposed LWC would help the BLM achieve the agency's ecosystem management goals

"*Human activities are increasing at a tremendous rate in the Black Mountains, including urban development, communication facilities, highway construction and recreational activities*" (BLM, 1993: p. 99). The Black Mountains Ecosystem Management Plan, a collaboratively developed management vision for the Black Mountains identified the following goals for the Black Mountains ecosystem: maintaining diverse and abundant native plant communities; maintaining biodiversity and overall ecological integrity; maintaining wildlife movement corridors; providing for a spectrum of recreational opportunities; preserving the areas wilderness character; increasing our knowledge of the ecosystem; and protecting cultural resources (BLM, 1996). In this and other documents (for example, BLM, 1993 & AZGFD, 2007), roads, off-road recreation, mining, and ranch developments have been identified as threats to the stability of sensitive wildlife species, habitat vitality, and overall ecosystem health. Protection of the Burns Spring unit as Lands with Wilderness Characteristics would provide an effective tool for meeting the goals stated above, and would be congruent with the agencies own determinations in 1980 and 1989 that the area was eligible for Wilderness designation.

Approaching the Burns Spring Proposed LWC from Lost Cabin Wash Road

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SECTION 3: Detailed Boundary & Routes Description

Narrative Description of the Proposed LWC Boundary

This section of the report provides a detailed boundary description for the Burns Spring Proposed LWC unit, including all wilderness inventory roads that comprise the unit boundary, all of the primitive routes/ways that permeate the unit boundary, and all other boundaries, such as land ownership, utility corridors, and other excluded areas. Many portions of the unit boundary have been determined according to wilderness inventory road identification protocols described in BLM Manual 6310, which states that a "way" maintained solely by the passage of vehicles does not constitute a "road" for purposes of inventorying lands with wilderness characteristics. Furthermore, the fact that a "way" is used on a regular and continuous basis does not make it a road. A vehicle route that was constructed by mechanical means, but is no longer being maintained by mechanical methods is not a road. A wilderness inventory road, by comparison, is a vehicle route that has "been improved and maintained by mechanical means to ensure relatively regular and continuous use" (Manual 6310, p. 11). Based on these criteria, the Burns Spring Proposed LWC unit contains about 32,215 contiguous roadless acres, with few primitive routes permeating the unit boundary, and none cutting into its core. The Photopoints described here of the Burns Spring Proposed LWC are listed in detailed tables with photographs following this description. Beginning at Waypoint 1, the proposed LWC unit description will move clockwise around the unit.

Northern Boundary

Waypoint 1 marks the northwestern corner for the Burns Spring Proposed LWC unit. From Waypoint 1 heading east, the BLM property line serves as the proposed LWC unit boundary. At the northeastern LWC unit corner, the proposed LWC boundary is a wilderness inventory road (BLM Route 7743) for a short distance. This portion of BLM Route 7743 is maintained, while sections to the south are not maintained. The BLM property line continues to serve as the proposed LWC boundary until near Photopoint 1. Photopoint 1 depicts BLM Route 7743 where it is a primitive route running north and east from this location. As Photopoint 1 displays, this section of BLM Route 7743 has not received mechanized maintenance since its construction. This way is used to access a stock tank located just off BLM land to the north of Photopoint 1. Heading east down BLM Route 7743 along the northern boundary for about a quarter mile, this primitive route forks. At this point, the northern fork goes through a gate in a barbed wire fence leaving BLM property, while the other fork continues to the south. After about a tenth of a mile, BLM Route 7743 turns to the east. At this point, the BLM route inventory data layer shows a route also going west, however, this route does not exist on the ground. Photopoint 2 depicts the condition of BLM Route 7743 looking to the northwest, and is further evidence that this way is not maintained. At Photopoint 3, BLM Route 7743 leaves BLM land and continues to the southeast.

Eastern Boundary

The entire eastern Burns Spring Proposed LWC unit boundary is the BLM property line. Waypoint 2 marks the northeastern LWC unit corner. At the next property corner to the south, the proposed LWC unit boundary cuts to the west, along the BLM property line. Before the next property corner, a wash, running north/south, enters the Burns Spring Proposed LWC unit to the north. In the aerial imagery, there appear to be tracks running into the unit, however, there is no evidence of actual vehicular use on the ground. From the next property corner, the unit boundary turns to the south again, running parallel to the aforementioned wash. No ways or roads were found to be entering BLM lands along this section.

Heading south, the Burns Spring Proposed LWC unit boundary continues to be the BLM property boundary. No ways or roads enter BLM property until Photopoint 4. The photo shows a way enters BLM land at this point. There is no indication that this way was ever constructed, and it has no evidence of maintenance either. There appears to be no purpose for this way, and it receives minimal use after traveling down it only a short distance. Photopoint 5 depicts the dead end of this primitive route, which is out of the unit. No more roads or primitive routes enter the Burns Spring LWC unit until Photopoint 6. This picture was taken off BLM property, at the beginning of a road that enters the unit. As seen in Photopoint 7, this way was constructed using cut and fill techniques. However, as BLM manual 6310 states, “Vehicle routes constructed by mechanical means but that are no longer being maintained by mechanical methods are not wilderness inventory roads.” (Manual 6310, p.11). Therefore, this is a primitive route and not a road because it has received no maintenance. Only 4-WD vehicles could utilize his extremely rough primitive route that ends at a viewpoint. Photopoint 8 was taken at this viewpoint, looking west into the core of the Burns Spring unit as it drops toward the Colorado River. Continuing south from this way, no other roads or ways enter the Burns Spring Proposed LWC along its eastern bounds.

Southern Boundary

Much of the southern Burns Spring Proposed LWC unit boundary is the BLM property line. Waypoint 3 marks the southeastern proposed LWC unit corner. The BLM route data displays no routes entering this checkerboard boundary, and the Arizona Wilderness Coalition’s analysis of the unit border did not identify any roads entering the Burns Spring unit from the adjacent private lands. Moving west along the BLM property boundary, the point of interest can be seen in Photopoint 9. This photo shows and unnamed, primitive route in a wash entering the Burns Spring unit. This way was not constructed, has never been maintained, serves no apparent purpose, and is not a wilderness inventory road. The BLM property boundary continues south to Photopoint 10, which depicts a wilderness inventory road and is looking toward the private property boundary. This road was constructed with evidence of having been bladed and has a roadside berm. This road is most likely used to access nearby mining claims. Eventually, this wilderness inventory road leads to an old, dilapidated shack that can be viewed in Photopoint 11. At this old homestead, the wilderness inventory road heads to the southwest. A primitive route branches right off the wilderness inventory road heading west, and drops into a wash. Photopoint 12 illustrates that this way goes down the wash, was not constructed and is not maintained. Heading west down this way, Photopoint 13 shows a fork of two primitive routes.

Photopoint 14 shows the conditions of the right fork, which travels up another wash, was not constructed, is not maintained and has a natural surface. Photopoint 15 was taken at the end of the way at the National Recreation Area property boundary. The NRA sign states that this primitive route is closed to motor vehicles.

Going back to the wilderness inventory road near the old shack, and continuing southwest, Photopoint 16 pictures a junction. The left fork goes to the nearby neighborhood, while the wilderness inventory road turns right and heads southwest. In about a quarter mile, there is a fork in routes where the wilderness inventory road goes left, heading south. The right fork was once bladed, but there are no indications that this primitive route has been maintained, and it has a natural surface. Photopoint 17 shows this primitive route at a point where another primitive way forks to the right and heads northwest. Photopoint 17 depicts both of these primitive routes and illustrates that neither of these ways has received maintenance, as there is vegetation growing in the middle of both. Most of the tracks take the left fork at this junction, which heads west and leads to a mining claim, and then dead ends at a road closure at the National Recreation Area property boundary pictured in Photopoint 18. As stated above, because this way receives no mechanical maintenance, it is a way, and not a road as defined by BLM manual 6310.

Photopoint 19 depicts the location where the wilderness inventory road (BLM Route 7835) splits off of the southern boundary of the Burns Spring unit. At this point, the southern boundary to the unit is a paved road (BLM Route 7868). Photopoint 20 shows BLM Route 7837 (BLM route inventory data identifies this route as BLM Route 7837, although sign on the ground is labeled as BLM Route 7868) which was constructed, but shows no evidence of maintenance. This primitive route leads to a mining claim, and continues, but fades away at Photopoint 21. Photopoint 22 was taken near the southwestern corner of the Burns Spring unit. The NRA has closed the road heading north from Photopoint 22.

Western Boundary

Waypoint 4 marks the southwestern proposed LWC unit corner. The western boundary of the Burns Spring Proposed LWC is the property line between BLM and NRA lands. Heading north, a bit more than half way up the western boundary, there is a section of the Portland Mine Road, which is a wilderness inventory road that serves as a small part of the western LWC boundary. Photopoint 23 was taken at the eastern most part of the Portland Mine wilderness inventory road where it enters BLM land. The rest of the eastern boundary of the unit is the BLM and NRA property boundary until Photopoint 24. Near this point, the proposed LWC boundary becomes Portland Wash Road (BLM Route 7751) once again. Photopoint 30 shows where the National Park Service has closed an abandoned mining road that follows Tyro Wash across the proposed LWC. This route was proposed as a boundary in the 1989 Wilderness proposal, but it is now closed and revegetating, so it is included in this LWC proposal. Photopoint 24 pictures a fork where a primitive way leaves Portland Wash Road and heads east up a wash. Photopoint 25 illustrates that this is a way and not a road because it has vegetation growing in the middle of the tracks, was never constructed, is not maintained and has a natural surface. Photopoint 26 shows the end of the way at a bedrock exposure where users turn around.

The boundary to the unit continues to be Portland Wash Road until it meets the Portland Mine area, at which point the Burns Spring Proposed LWC unit boundary was drawn to exclude the mine impacts. The Portland Mine excluded impact area intercepts Lost Cabin Wash Road (a wilderness inventory road and BLM Route 7751), at which point Lost Cabin Wash Road becomes the unit boundary. Heading east up Lost Cabin Wash Road, Photopoint 27 shows a fork taking off to the southeast. This way accesses a wildlife water catchment. Photopoint 28 is a view of this tank looking to the east. The primitive route continues past the wildlife tank. As Photopoint 29 shows, there are vague tracks continuing south, but this way seems to be infrequently used and the tracks eventually fade away. Returning to the western Burns Spring Proposed LWC boundary, Lost Cabin Wash Road continues to serve as the proposed unit boundary (Photopoint 30). At Waypoint 5, the BLM property line becomes the proposed LWC boundary continuing north. The BLM property line acts as the proposed LWC boundary until intercepting an unnamed wilderness inventory road about a quarter mile south of Waypoint 1. This maintained road gets heavy use, and serves as the proposed LWC boundary for about quarter mile back to Waypoint 1.

SECTION 4: Photopoint Data

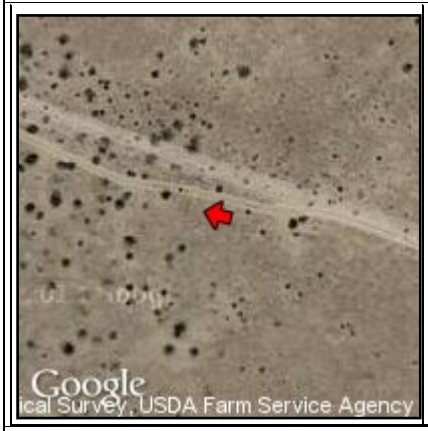
Data Tables & Photographs to accompany Maps and the Detailed Boundary & Routes Description

Attributes	
Title	Photopoint 001
Unit name	Burns Spring
Route name	Not Named
Determination	Way
Maintenance	None
Feature	Near stock tank

Photopoint 001. Looking east down seldom used primitive way.

Attributes	
Title	Photopoint 002
Unit name	Burns Spring
Route name	BLM Route 7743
Determination	Way
Maintenance	None
Feature	Typical condition of Route/Way

Photopoint 002. Looking west at unmaintained, revegetating way.



Attributes	
Title	Photopoint 003
Unit name	Burns Spring
Route name	BLM Route 7743
Determination	Way
Maintenance	None
Feature	Typical condition of Route/Way

Photopoint 003. Looking down primitive way as it enters the unit.

Attributes	
Title	Photopoint 004
Unit name	Burns Spring
Route name	None
Determination	Way
Maintenance	None
Feature	Typical condition of Route/Way

Photopoint 004. Looking north up primitive way, which was not constructed and has never been maintained.

Attributes	
Title	Photopoint 005
Unit name	Burns Spring
Route name	None
Determination	Way
Maintenance	None
Feature	Dead end

Photopoint 005. Dead end of primitive way at wash in recently burned area.

Attributes	
Title	Photopoint 006
Unit name	Burns Spring
Route name	None
Determination	Way
Maintenance	None
Feature	Leads to viewpoint

Photopoint 006. Looking west up beginning of short primitive way.

Attributes	
Title	Photopoint 007
Unit name	Burns Spring
Route name	None
Determination	Way
Maintenance	None
Feature	Erosion

Photopoint 007. Photo depicting rough condition of this way.

Attributes	
Title	Photopoint 008
Unit name	Burns Spring
Route name	NA
Determination	NA
Maintenance	NA
Feature	Viewpoint

Photopoint 008. View looking west into the core of the unit.

Attributes	
Title	Photopoint 009
Unit name	Burns Spring
Route name	Not Named
Determination	Way
Maintenance	None
Feature	Typical condition of Route/Way

Photopoint 009. Primitive wash route as it enters the unit.

Attributes	
Title	Photopoint 010
Unit name	Burns Spring
Route name	Not Named
Determination	Road
Maintenance	None
Feature	Private Property Boundary

Photopoint 010. Wilderness inventory road.

Attributes	
Title	Photopoint 011
Unit name	Burns Spring
Route name	NA
Determination	NA
Maintenance	NA
Feature	Old shack

Photopoint 011. Old homestead and mine.

Attributes	
Title	Photopoint 012
Unit name	Burns Spring
Route name	Not Named
Determination	Way
Maintenance	None
Feature	Typical condition of Route/Way

Photopoint 012. Looking west down a primitive way in a wash.

Attributes	
Title	Photopoint 013
Unit name	Burns Spring
Route name	Not Named
Determination	Way
Maintenance	None
Feature	Junction

Photopoint 013. A fork featuring two unconstructed ways that go up washes.

Attributes	
Title	Photopoint 014
Unit name	Burns Spring
Route name	Not Named
Determination	Way
Maintenance	None
Feature	Typical condition of Route/Way

Photopoint 014. A primitive route.

Attributes	
Title	Photopoint 015
Unit name	Burns Spring
Route name	Not Named
Determination	Way
Maintenance	None
Feature	Closure point/property boundary

Photopoint 015. NRA and BLM property boundary and the tracks in the wash.

Attributes	
Title	Photopoint 016
Unit name	Burns Spring
Route name	Not named
Determination	Way & Road
Maintenance	None on way; old evidence of blade on road
Feature	Intersection

Photopoint 016. An intersection of a primitive way and a wilderness inventory rd.

Attributes	
Title	Photopoint 017
Unit name	Burns Spring
Route name	Not Named
Determination	Way
Maintenance	None
Feature	Fork

Photopoint 017. Two primitive ways fork.

Attributes	
Title	Photopoint 018
Unit name	Burns Spring
Route name	Not Named
Determination	Road
Maintenance	None
Feature	Closure point

Photopoint 018. National Recreation Area road closure.

Attributes	
Title	Photopoint 019
Unit name	Burns Spring
Route name	BLMRoute 7835
Determination	Road
Maintenance	None
Feature	Beginning of route

Photopoint 019. Looking toward a wilderness inventory road.

Attributes	
Title	Photopoint 020
Unit name	Burns Spring
Route name	BLM Route 7886 or BLM Route 7837
Determination	Way
Maintenance	None
Feature	Beginning of way

Photopoint 020. A primitive way heading north into the unit.

Attributes	
Title	Photopoint 021
Unit name	Burns Spring
Route name	Not named
Determination	Way
Maintenance	None
Feature	Dead end

Photopoint 021. The end of a primitive way.

Attributes	
Title	Photopoint 022
Unit name	Burns Spring
Route name	Not named
Determination	Not a road or way
Maintenance	None
Feature	Road Closure

Photopoint 022. National Recreation Area road closure.

Attributes	
Title	Photopoint 023
Unit name	Burns Spring
Route name	NA
Determination	NA
Maintenance	NA
Feature	Scenic

Photopoint 023. Scenic photograph looking east into Burns Spring unit.

Attributes	
Title	Photopoint 024
Unit name	Burns Spring
Route name	Not named
Determination	Way
Maintenance	None
Feature	Wash

Photopoint 024. A primitive way heading up a wash.

Attributes	
Title	Photopoint 025
Unit name	Burns Spring
Route name	Way in wash
Determination	Way
Maintenance	None
Feature	Typical condition of Route/Way

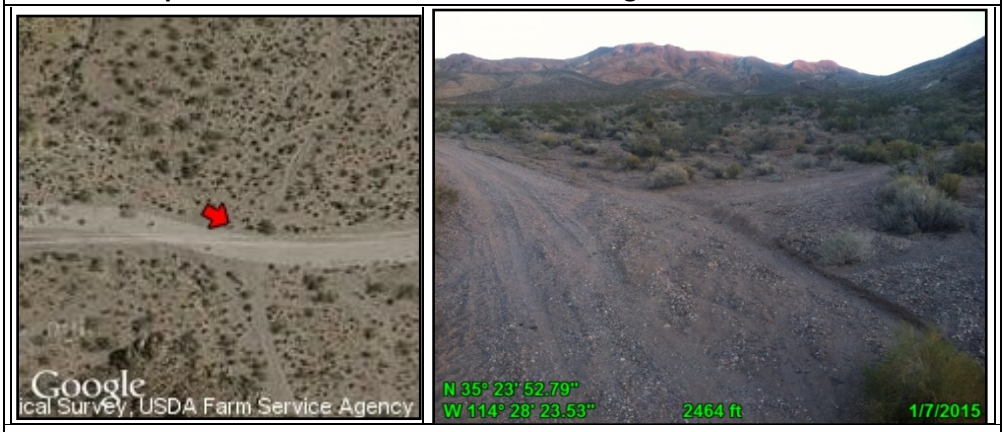
Photopoint 025. Condition of primitive route.

Attributes	
Title	Photopoint 026
Unit name	Burns Spring
Route name	Not named
Determination	Way
Maintenance	None
Feature	Dead end

Photopoint 026. Dead end of way.

Attributes	
Title	Photopoint 027
Unit name	Burns Spring
Route name	Not named
Determination	Way
Maintenance	None
Feature	Junction

Photopoint 027. Unmaintained route leading to wildlife water tank.

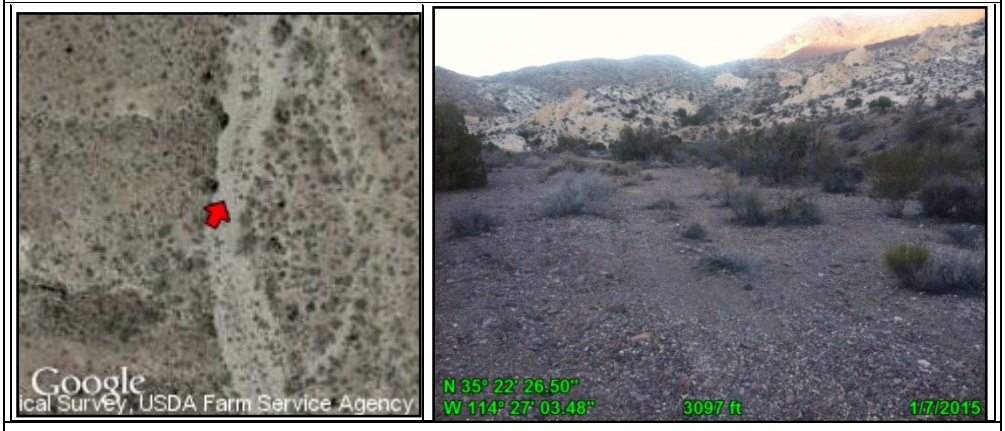


Attributes	
Title	Photopoint 028
Unit name	Burns Spring
Route name	NA
Determination	NA
Maintenance	NA
Feature	Wildlife water tank

Photopoint 028. Lost Cabin wildlife water catchment.

Attributes	
Title	Photopoint 029
Unit name	Burns Spring
Route name	Not named
Determination	Way
Maintenance	None
Feature	Low use

Photopoint 029. Tracks fade past water tank.



Attributes	
Title	Photopoint 030
Unit name	Burns Spring
Route name	BLM Route 7751
Determination	Road
Maintenance	None
Feature	Feeding station

Photopoint 030. Looking north up Lost Cabin Wash Road.

Attributes	
Title	Photopoint 31
Unit name	Burns Spring
Route name	Not Named
Determination	Way
Maintenance	None
Feature	Closure point by NPS

Photopoint 031. Mining road up Tyro Wash has been closed and is unused.