

Proposed Lands with Wilderness Characteristics:

Aquarius Cliffs



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

March, 2016

Prepared by:
Joseph M. Trudeau &
Amber R. Fields



ARIZONA WILDERNESS COALITION



hassayampa
forestry
PRESCOTT, ARIZONA

Table of Contents

PREFACE: This Proposal was developed according to BLM Manual 6310 _____ ***page 3***

MAPS: Aquarius Cliffs Proposed Lands with Wilderness Characteristics (LWC) _____ ***page 5***

SECTION 1: Proposed LWC Overview

Unit Location _____ ***page 10***

Brief Boundary Description _____ ***page 10***

MAP: Previous Wilderness Inventories _____ ***page 11***

Landforms & Biological Communities _____ ***page 12***

Scenic Photographs of the Aquarius Cliffs Proposed LWC _____ ***page 13***

SECTION 2: Wilderness Characteristics

The proposed LWC meets the minimum size criteria for roadless lands _____ ***page 19***

The proposed LWC is affected primarily by the forces of nature _____ ***page 21***

The proposed LWC provides outstanding opportunities for solitude & primitive and unconfined recreation _____ ***page 23***

The proposed LWC has supplemental values that enhance the wilderness experience & deserve protection _____ ***page 26***

Works Cited _____ ***page 27***

SECTION 3: Detailed Boundary & Routes Description

Narrative Description of the Proposed LWC Boundary _____ ***page 28***

SECTION 4: Photopoint data

Data Tables & Photographs to accompany the Detailed Boundary & Routes Description _____ ***page 35***

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.

¹Memorandum 2011-154 is available online at:

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

² Manual 6310 is available online at :

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

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

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

• **Size**

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

• **Naturalness**

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

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

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

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

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

• **Supplemental values**

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

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

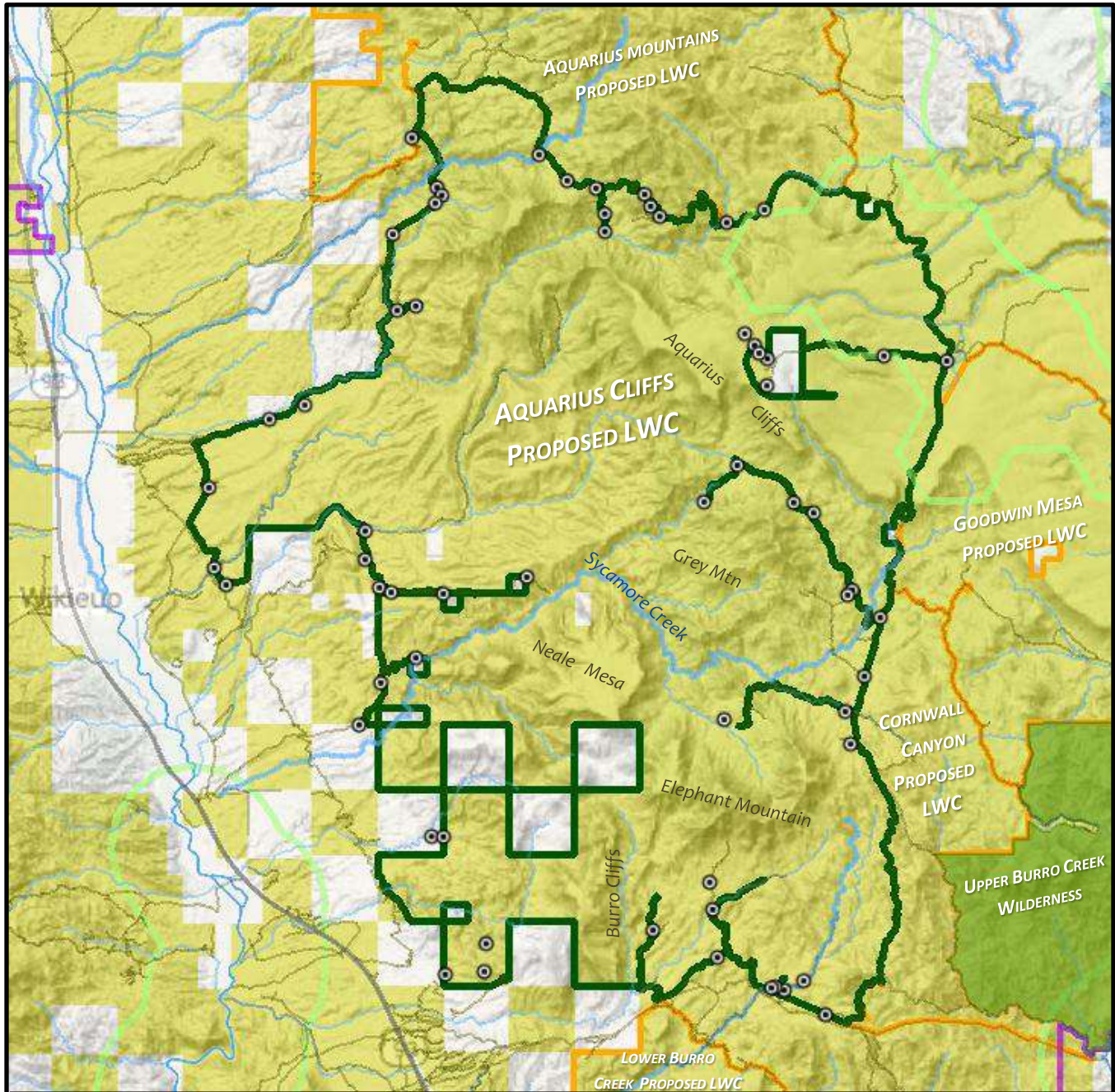
Boundaries should be based on wilderness inventory roads and naturalness rather than opportunities for solitude or primitive and unconfined recreation. For inventorying wilderness characteristics, BLM will use the “road” definition from FLPMA’s legislative history; the term “road” and “wilderness inventory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

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

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

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

MAP: Aquarius Cliffs Proposed Lands with Wilderness Characteristics (LWC)



Bureau of Land Management	Aquarius Cliffs Proposed LWC	Other Proposed LWC's	Designated Wilderness	Areas of Critical Env. Concern	Conservation Areas (TNC)	Private Land	AZ State Trust Land
---------------------------	------------------------------	----------------------	-----------------------	--------------------------------	--------------------------	--------------	---------------------

○ Photopoints: see detail maps
⚡ BLM Route Inventory Data (regardless of status)

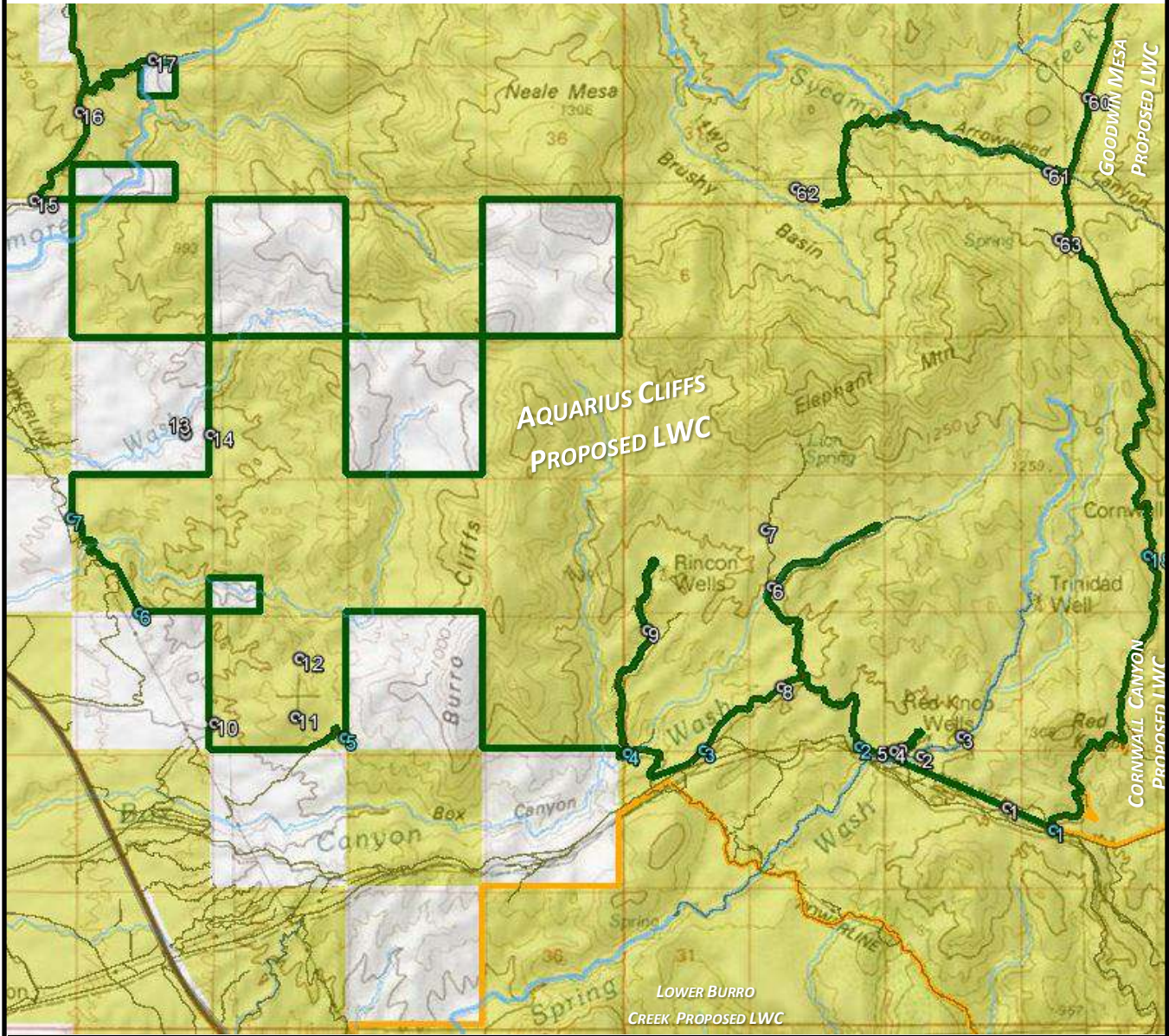


AQUARIUS CLIFFS
 PROPOSED LANDS WITH WILDERNESS CHARACTERISTICS
 KINGMAN FIELD OFFICE, BUREAU OF LAND MANAGEMENT, ARIZONA

SEE DETAIL MAPS ON THE FOLLOWING PAGES FOR PHOTOPPOINT NUMBERS AND OTHER INFORMATION

1 mile	5 miles	Data: Google, Google Earth, BLM, USGS, TNC, Field Survey. Produced for AWC by Hassayampa Forestry & Ecological, 2016
--------	---------	---

DETAIL MAP 1: SOUTHERN PORTION OF UNIT
 SHOWING PHOTOPOINTS 1 – 17 & 60 – 62 & WAYPOINTS 1 – 7 AND 18



Bureau of Land Management	Aquarius Cliffs Proposed LWC	Other Proposed LWC's	Designated Wilderness	Areas of Critical Env. Concern	Conservation Areas (TNC)	Private Land	AZ State Trust Land
---------------------------	------------------------------	----------------------	-----------------------	--------------------------------	--------------------------	--------------	---------------------



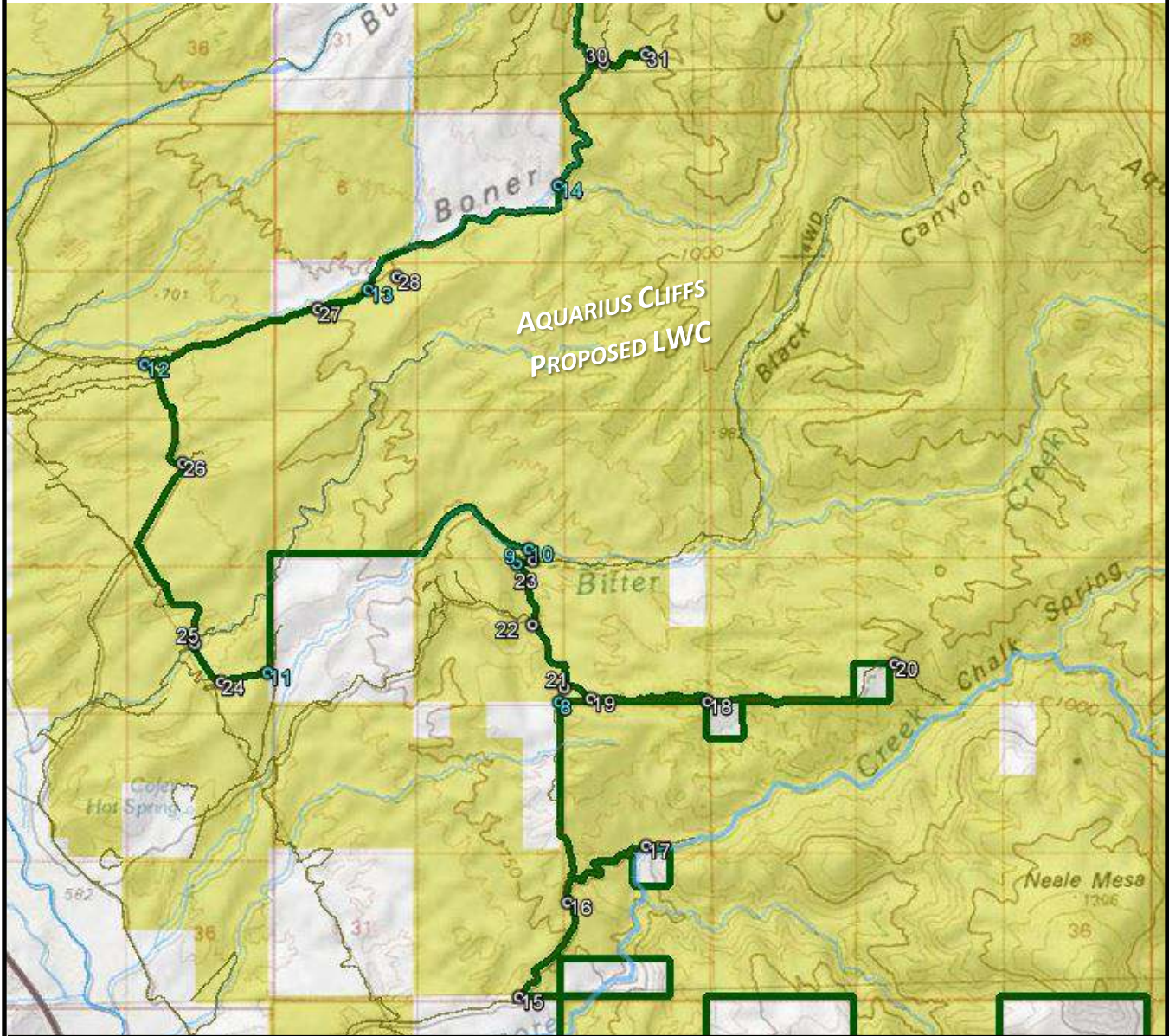
- Photopoints
- Waypoints
- BLM Route Inventory Data (regardless of status)

AQUARIUS CLIFFS
 PROPOSED LANDS WITH WILDERNESS CHARACTERISTICS
 KINGMAN FIELD OFFICE, BUREAU OF LAND MANAGEMENT, ARIZONA

1/2 mile 2.5 miles Data: Google, Google Earth, BLM, USGS, TNC, Field Survey. Produced for AWC by Hassayampa Forestry & Ecological, 2016

DETAIL MAP 2: WESTERN PORTION OF UNIT

SHOWING PHOTOPOINTS 15 - 31 & WAYPOINTS 8 - 14



Bureau of Land Management	Aquarius Cliffs Proposed LWC	Other Proposed LWC's	Designated Wilderness	Areas of Critical Env. Concern	Conservation Areas (TNC)	Private Land	AZ State Trust Land
---------------------------	------------------------------	----------------------	-----------------------	--------------------------------	--------------------------	--------------	---------------------



- Photopoints
- Waypoints

~ BLM Route Inventory Data (regardless of status)

AQUARIUS CLIFFS

PROPOSED LANDS WITH WILDERNESS CHARACTERISTICS
KINGMAN FIELD OFFICE, BUREAU OF LAND MANAGEMENT, ARIZONA

1/2

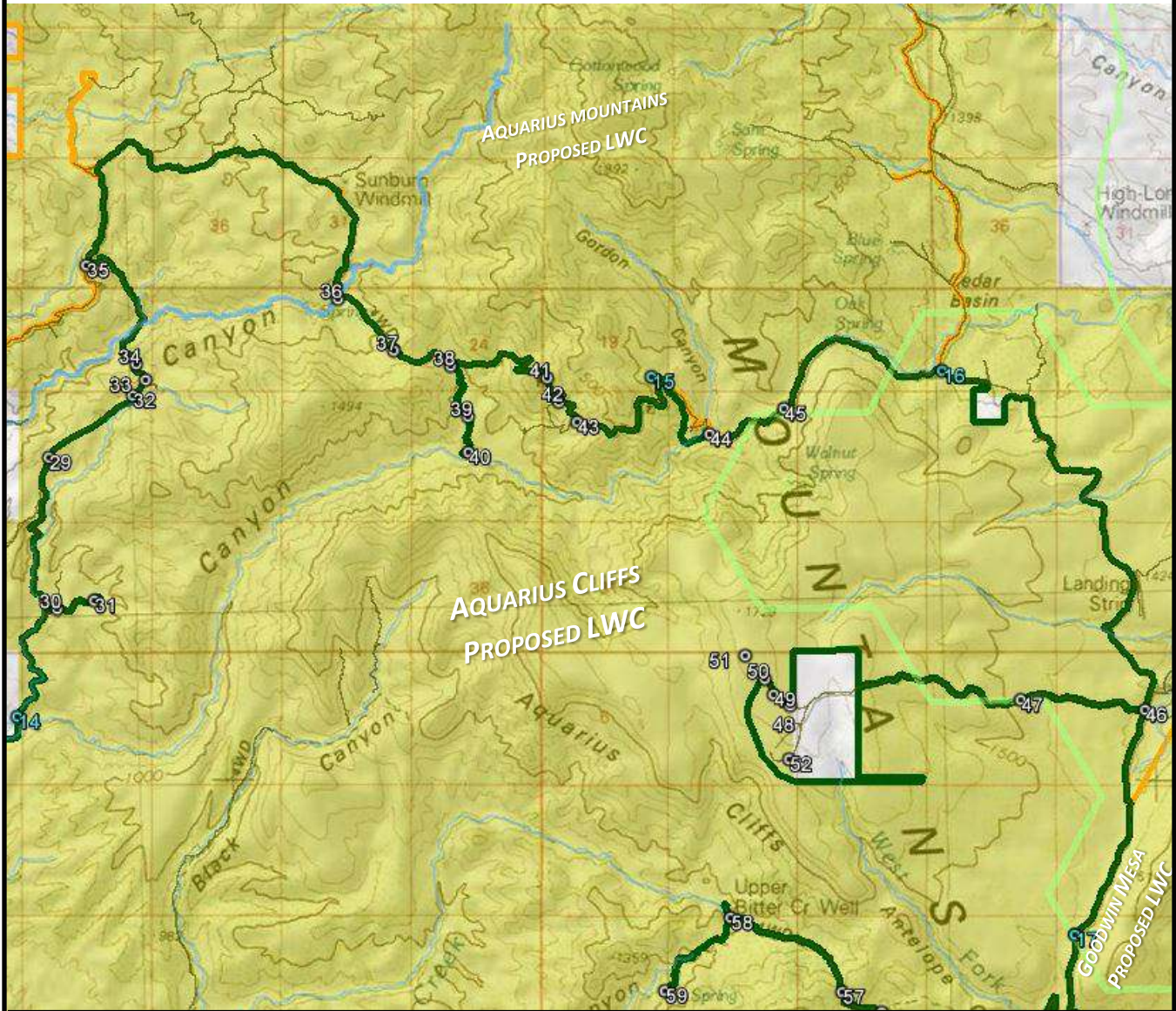
mile

2.5 miles

Data: Google, Google Earth, BLM, USGS, TNC, Field Survey.
Produced for AWC by Hassayampa Forestry & Ecological, 2016

DETAIL MAP 3: NORTHERN PORTION OF UNIT

SHOWING PHOTOPOINTS 30 – 52 & 56 – 59 & WAYPOINTS 14 – 17



Bureau of Land Management	Aquarius Cliffs Proposed LWC	Other Proposed LWC's	Designated Wilderness	Areas of Critical Env. Concern	Conservation Areas (TNC)	Private Land	AZ State Trust Land
---------------------------	------------------------------	----------------------	-----------------------	--------------------------------	--------------------------	--------------	---------------------

○ Photopoints
● Waypoints
~ BLM Route Inventory Data (regardless of status)



AQUARIUS CLIFFS

PROPOSED LANDS WITH WILDERNESS CHARACTERISTICS
 KINGMAN FIELD OFFICE, BUREAU OF LAND MANAGEMENT, ARIZONA

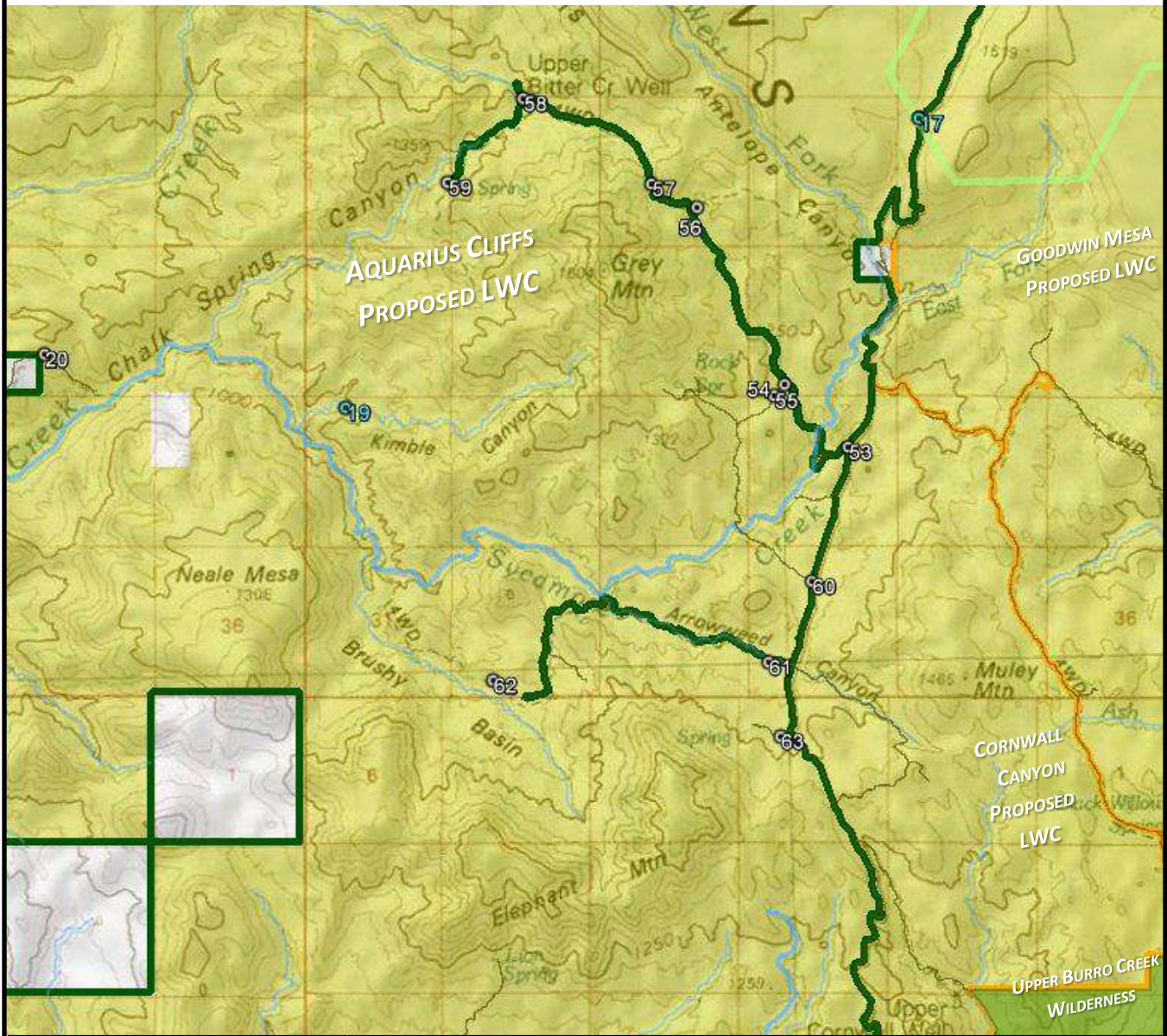
1/2 mile

2.5 miles

Data: Google, Google Earth, BLM, USGS, TNC, Field Survey.
 Produced for AWC by Hassayampa Forestry & Ecological, 2016

DETAIL MAP 4: EASTERN PORTION OF UNIT

SHOWING PHOTOPOINTS 53 – 63 & WAYPOINTS 17 AND 19



Bureau of Land Management	Aquarius Cliffs Proposed LWC	Other Proposed LWC's	Designated Wilderness	Areas of Critical Env. Concern	Conservation Areas (TNC)	Private Land	AZ State Trust Land
---------------------------	------------------------------	----------------------	-----------------------	--------------------------------	--------------------------	--------------	---------------------

Photopoints
 Waypoints

BLM Route Inventory Data (regardless of status)



AQUARIUS CLIFFS
 PROPOSED LANDS WITH WILDERNESS CHARACTERISTICS
 KINGMAN FIELD OFFICE, BUREAU OF LAND MANAGEMENT, ARIZONA

1/2 mile	2.5 miles	Data: Google, Google Earth, BLM, USGS, TNC, Field Survey. Produced for AWC by Hassayampa Forestry & Ecological, 2016
----------	-----------	---

SECTION 1: General Overview

Unit Location

The Aquarius Cliffs Proposed LWC encompasses over 61,500 acres in the Aquarius Mountains of western Arizona, in southeastern Mohave County immediately east of the small town of Wikieup, which sits in the Big Sandy River valley along US Highway 93. The Aquarius Mountains, which run for about 40 miles from Interstate 40 south to Burro Creek, form the eastern watershed uplands for this river, while the Hualapai Mountains form the western uplands. The northern half of this range is a checkerboard of private and Arizona State Trust Lands, while the southern half is predominantly consolidated BLM ownership with scattered private land inholdings, mostly along the lowest elevations in the Big Sandy River valley.

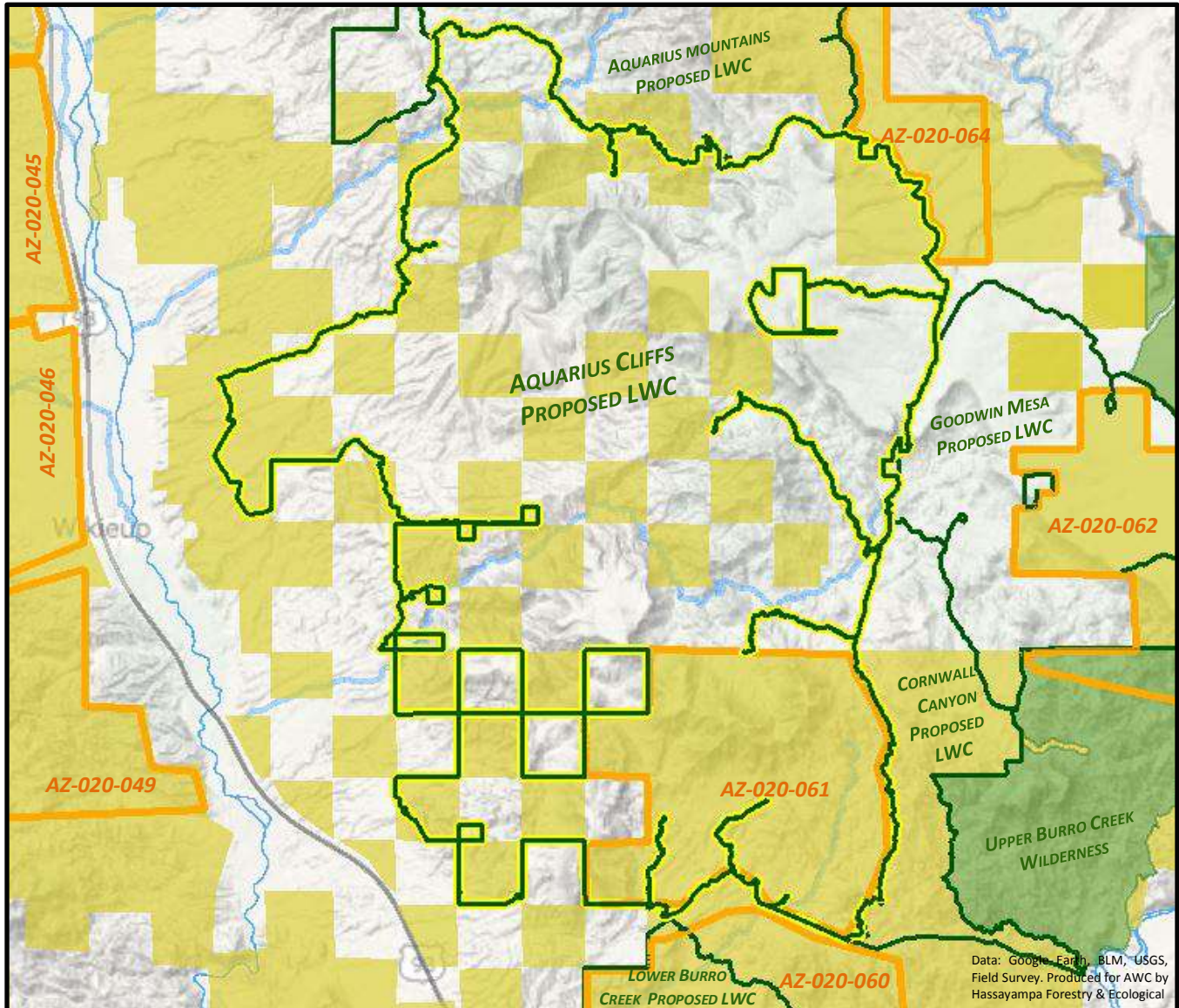
This unit is named for the seven mile long escarpment which divides the relatively level plains of Goodwin Mesa from the rugged canyons and peaks of the rest of the unit, such as Grey Mountain, Sycamore Creek, and the Elephant Mountain/Burro Cliffs areas. These features dominate the scenic and ostensibly pristine skyline for miles along the Highway 93 corridor. The area is used by several local ranching outfits, most notably the Francis Creek ranch which maintains a number of well-kept livestock water wells, corrals, and other infrastructure. The Bagdad copper mine is more than ten miles to the southeast, and sights and sounds of this operation are generally not present in the proposed unit.

This region of BLM administered land contains numerous features of enormous conservation value. The Upper Burro Creek Wilderness protects 27,440 acres of grasslands, mesas, and canyons to the east of the proposed unit, and Arizona Wilderness Coalitions 2015 and 2016 inventory has mapped four other proposed LWC's surrounding Aquarius Cliffs, which, along with this unit would protect critical grassland and riparian habitat, and provide outstanding solitude and recreational opportunities.

Brief Boundary Description

The Aquarius Cliffs Proposed LWC unit boundary is comprised of various wilderness inventory roads, utility corridors, property lines, natural terrain features, and a couple of primitive routes which were used to exclude areas with human impacts. The southern boundary consists of a gas pipeline, an unnamed wilderness inventory road, Burro Creek Crossing Road (BLM Route 7666), a dry wash, property lines, and another unnamed wilderness inventory road that leads to private land. The western proposed LWC unit boundary is formed by a powerline and the powerline access road (BLM Route 7661), private property boundaries, wilderness inventory roads (BLM Route 7664 and 7663), a utility corridor, an unnamed wilderness inventory road, a dry wash (Bitter Creek), an unnamed primitive route, and Chollo Canyon Ranch Road (BLM Route 7675). The northern LWC boundary is comprised of an unnamed wilderness inventory road that turns into an unmaintained way, property lines, a dry wash, unnamed wilderness inventory roads, BLM Route 7658 (wilderness inventory road), a drainage and an unnamed primitive route. The eastern proposed LWC unit boundary consists of BLM Route 7657 (Goodwin Mesa Road), property lines, and wilderness inventory roads.

MAP: Previous Wilderness Inventories - Showing Land Ownership in 1978



BLM ownership in 1978	Private Land in 1978	1980 Wilderness Inventory Units	Aquarius Cliffs Proposed LWC	Other Proposed LWC's	Designated Wilderness	3/8" = 1 Mile
-----------------------	----------------------	---------------------------------	------------------------------	----------------------	-----------------------	---------------

This map displays the land ownership pattern at the time of the BLM’s initial wilderness inventory, in 1978 and 1979 (BLM, 1980a). It also overlays new and updated data developed through Arizona Wilderness Coalitions 2015 and 2016 inventory. In 1978, the BLM examined all public lands in Arizona to determine which lands met the basic legal requirements for Wilderness study. The orange polygons shown here represent the units that met the preliminary minimum criteria. Upon closer inspection, all were then dropped from further consideration, except for AZ-02-062, of which portions were eventually designated as the Upper Burro Creek Wilderness, and AZ-02-060, which underwent wilderness study but never reached congressional designation. Unit AZ-02-061 was the only initial inventory unit within the currently contiguous BLM land area encompassed by The Aquarius Cliffs Proposed LWC. At that time, the BLM administered 12.5 million acres in Arizona, which has since declined to 12.2 million acres. This proposed unit, as well as much of the several other units we have inventoried in this area, were predominantly privately owned at that time. Over the last 35 years, land transfers between BLM and private entities have consolidated ownership substantially. The BLM’s decision to drop the 10,500 acre unit AZ-02-061 from consideration is interesting, because within that unit are the high and wild summits of Elephant Mountain, Neale Mesa, the Burro Cliffs, and Red Knob. These isolated peaks offer outstanding hiking and climbing opportunities along challenging backcountry routes. The 61,500 acres of roadless lands encompassed by the proposed unit shown above in the yellow and green polygon contain not only the wild country just mentioned, but also includes Sycamore Creek Canyon, Grey Mountain, the Aquarius Cliffs, and many more wild canyons and mesas.

Landforms & Biological Communities

The Aquarius Cliffs Proposed LWC contains an astounding variety of landforms, plant communities, and associated wildlife habitat. The unit is more or less a rectangular shape of 13 miles north to south, and 10 miles east to west, and features dramatic landscape-encompassing terrain features, and along with the Hualapai Mountains Proposed LWC on the western side of the Big Sandy River valley, represents some of the most diverse landscapes in the Kingman Resource Area. This area provides some of the largest blocks of unfragmented habitat for a diversity of species in western Arizona (Beier & Majka, 2006), and Arizona Game and Fish Department considers this area as one of the least fragmented habitat areas in western Arizona (AZGFD, 2012).

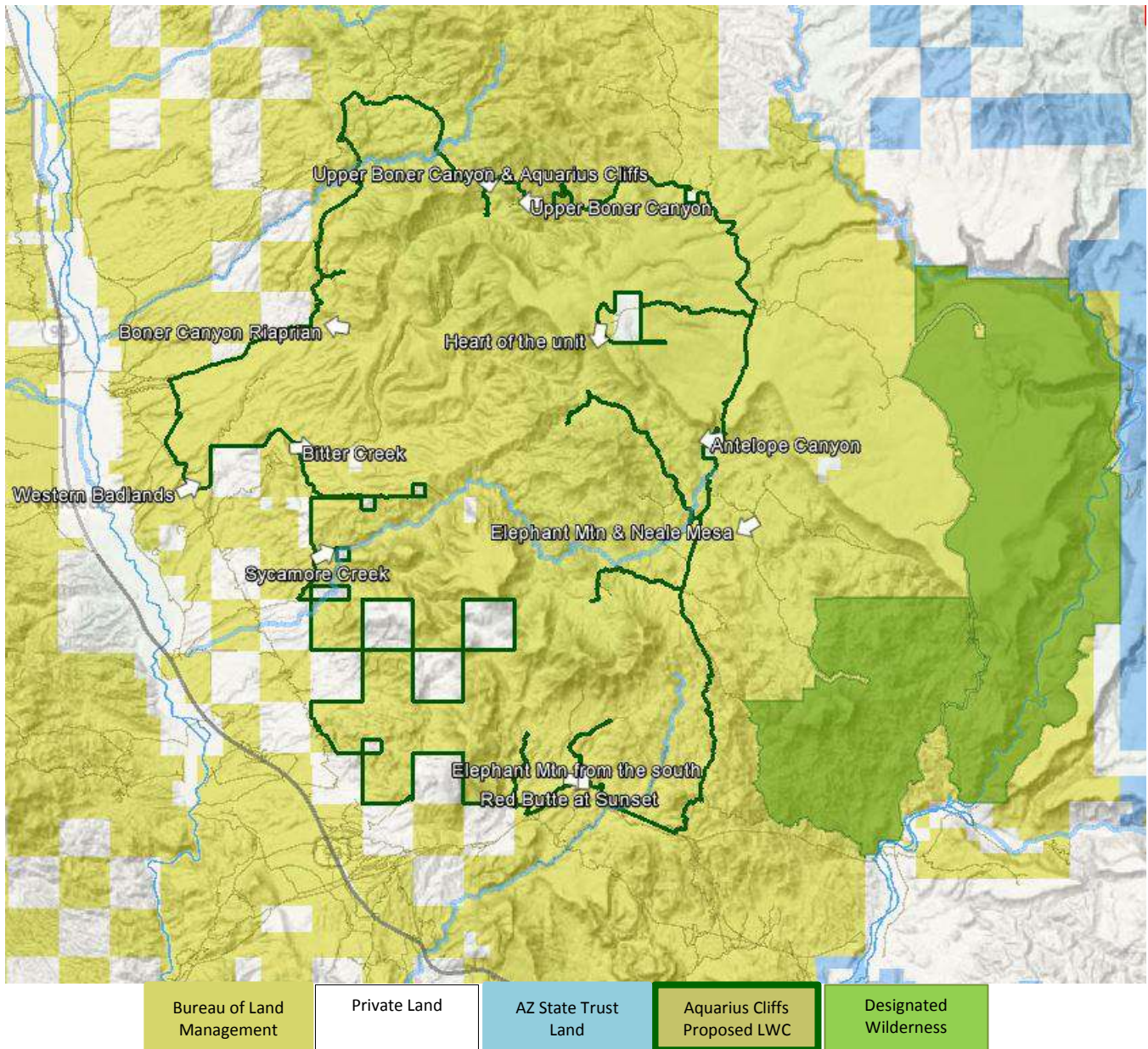
The Aquarius Mountains represent the first true basin and range geomorphology west of the Colorado Plateau. The range is comprised of a wide variety 1.4 to 1.8 billion year old granite, granodiorite, tonalite, quartz diorite, diorite, and gabbro, which has been covered by volcanic flows over the past 2 to 16 million years, composed of basalt, andesite, and rhyolite (Arizona Geological Society, 2000). The erosion of these layers has produced extensive valley fill sediments, alluvial fans, and badlands along the low western slopes of the range in the broad Big Sandy River basin. The eroded core of the unit features granitic peaks and canyons (Grey Mountain, Sycamore Creek, Bull & Boner Canyons), overlaid by basalt-rimmed mesas (the Aquarius Cliffs/Goodwin Mesa & Neale Mesa/Burro Cliffs), and steep, colorful volcanic peaks (Elephant Mountain & Red Knob). The variety of landforms, dissected by numerous canyons, creates a vast, wild mosaic of remote locations where those seeking solitude can find it easily.

The Aquarius Cliffs unit is a transitional zone between the Sonoran Desert ecoregion and the Apache Highlands ecoregion. The low western and southern slopes are classified as upland Sonoran desert-scrub, the middle elevation canyons and mountain slopes are classified as interior chaparral, and mesa tops are classified as Great Basin conifer woodland and semi-desert grassland (TNC, 2004). Desert-scrub portions of the proposed LWC are dominated by saguaro, ocotillo, creosote, prickly-pear, agave, yucca, bursage, crucifixion thorn, cholla, and abundant grasses and forbs. These areas provide open hunting grounds for raptors, and are well-populated by burros, coyote, kit fox, and mountain lion. These desert slopes are considered crucial habitat for desert tortoise (BLM, 1980a). Chaparral areas are dense with diverse shrubs, including mountain mahogany, scrub oak, juniper, crucifixion thorn, silk-tassel, sugar sumac, buckthorns, and buckbrush. These areas are excellent mule deer habitat, and may support desert bighorn sheep, which have used the Aquarius Mountains in the past (BLM, 1980b). Scattered patches of conifer woodland occur on north slopes throughout the chaparral matrix. Mesa tops and level benches feature open grasslands with scattered shrubs, cacti, and juniper, and are excellent pronghorn habitat, (Gori & Enquist, 2003; Marshall *et al.*, 2004). Riparian habitats, which support the full range of species in this area, occur along Sycamore & Bitter Creeks, and in Boner, Bull, and Chalk Springs Canyons, featuring cottonwood, sycamore, willow, walnut, ash, and box elder.

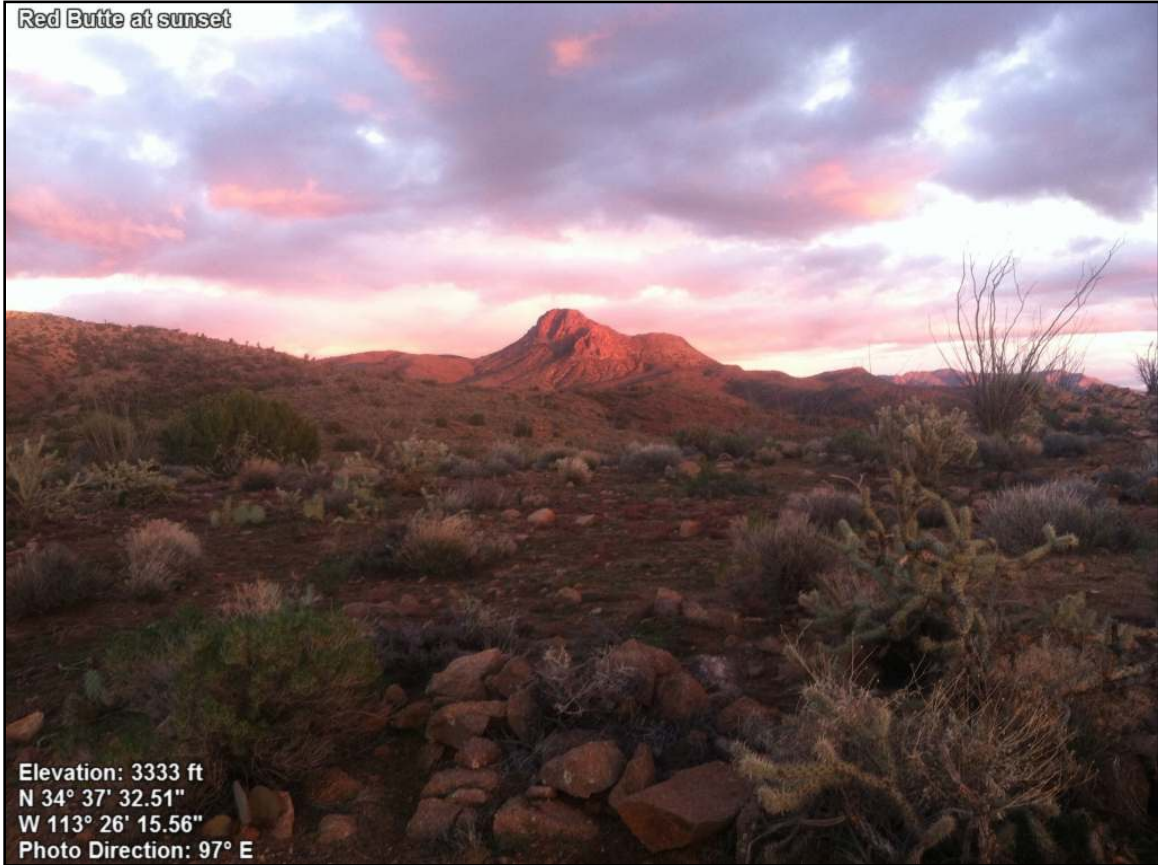
Scenic Photographs of the Aquarius Cliffs Proposed LWC

So far, we have mentioned a number of geographic names in regards to general terrain, habitat, or recreation. The following pages provide some scenic photos of these areas. Reference this map for identifying where the scenic photos were taken from.

White arrows indicate the direction of the photo.

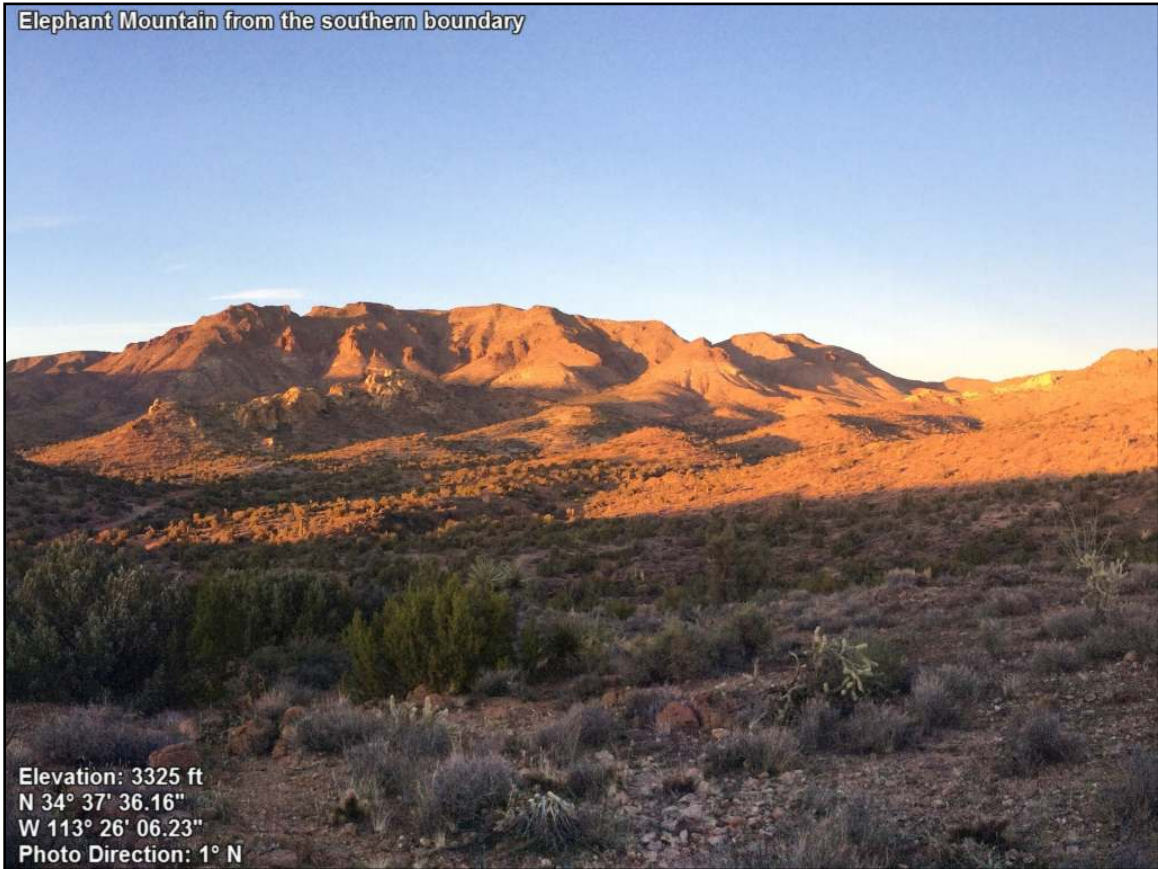


Aquarius Cliffs Proposed LWC



Aquarius Cliffs Proposed LWC

Elephant Mountain from the southern boundary



Looking up Bitter Creek at the Aquarius Cliffs & Grey Mountain



Aquarius Cliffs Proposed LWC

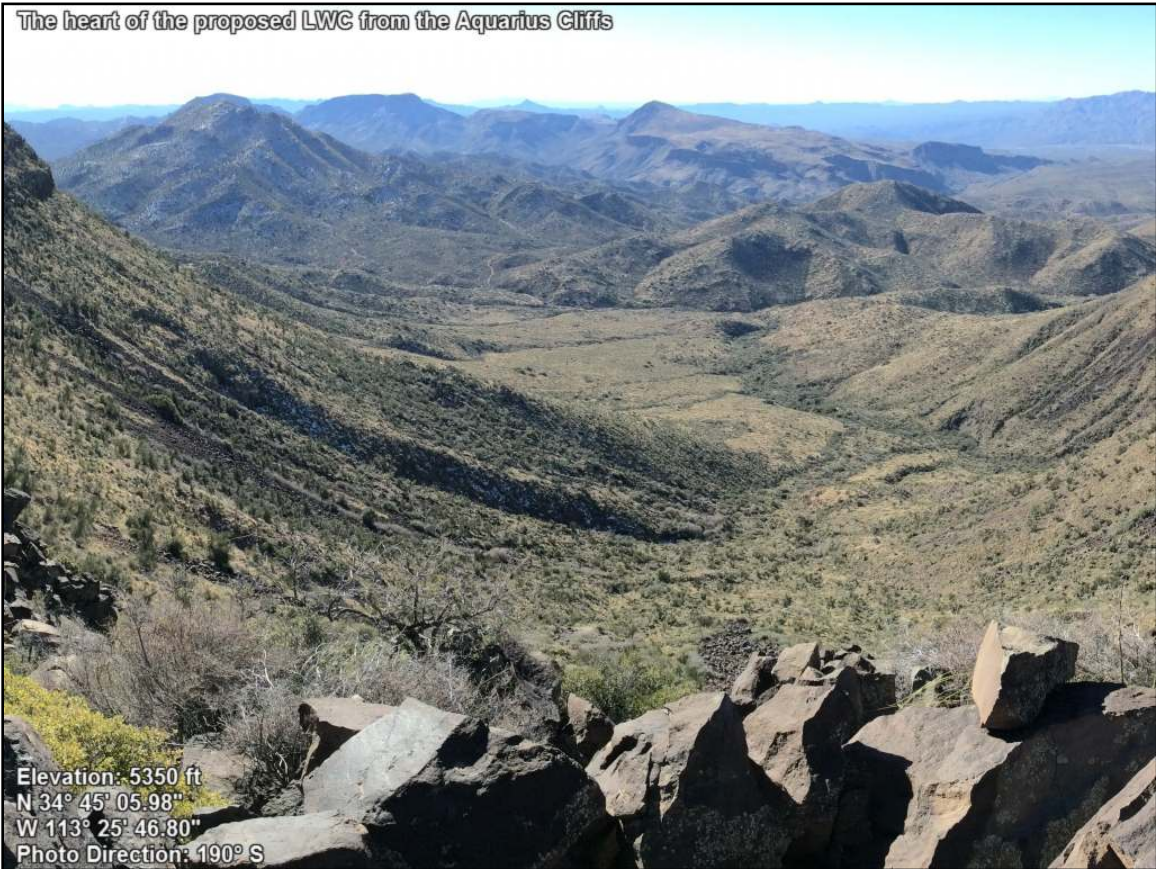


Aquarius Cliffs Proposed LWC



Aquarius Cliffs Proposed LWC

The heart of the proposed LWC from the Aquarius Cliffs



Riparian forest in Boner Canyon



SECTION 2: Wilderness Characteristics

The proposed LWC meets the minimum size criteria for roadless lands

The Aquarius Cliffs Proposed LWC encompasses approximately 61,503 contiguous acres of roadless wildlands under BLM ownership. The acreage of the proposed LWC excludes eleven private inholdings, and ten cherrystemmed Wilderness Inventory Roads:

- 1) There are four inholdings of private land accessed by cherrystemmed Wilderness Inventory Roads:
 - a) The western half of Section 4 in T16N, R11W; with an arm extending to the east encompassing a ~4.5 acre strip at the southern end of the SWSE quadrant & a ~4.5 acre strip at the southern end of the SESE quadrant of Section 4 in T16N, R11W; with an additional excluded area of BLM land with human impacts (ranching infrastructure) consisting of portions of the NE & SE quadrants of Section 5 in T16N, R11W. The private parcel contains roughly 327 acres, and the adjacent excluded area impacted by ranching activities contains about 114 acres. An unnamed cherrystem road (Photopoints 46 & 47) serves as access to the private inholding which is managed by the Frances Creek Ranch.
 - b) Two 40-acre private parcels of land (the NWNW quadrant of Section 27 in T16N, R12W & the SWSW quadrant of Section 23 in T16N, R12W) are excluded along with the cherrystemmed access road (Photopoint 19) and probable utility line (Photopoint 18).
 - c) A 40-acre private parcel contains the NWNE quadrant of Section 33 in T16N, R12W with a cherrystem that excludes BLM Route 7664. This private inholding is the only private parcel found in the Aquarius Cliffs Proposed LWC unit containing a permanent residence.
- 2) There are seven private inholdings not accessed by cherrystemmed Wilderness Inventory Roads:
 - a) A private parcel encompasses 80 acres at the eastern half of the NE quadrant of Section 21 in T16N, R12W. BLM Route 7662 goes through the NW corner of this parcel, but as Photopoint 23 illustrates, this is not a wilderness inventory road. This private land contains no developed improvements.
 - b) A private parcel (80 acres) consisting of the western half of the NW quadrant of Section 25 in T16N, R12W. This private land has no vehicle access route or any developed improvements.
 - c) A private parcel (120 acres) that includes the southern half of the SW quadrant & the SWSE quadrant of Section 33 in T16N, R12W. This private parcel has no vehicle access route or any developed improvements.
 - d) A private parcel (640 acres) that encompasses all of Section 3 in T15N, R12W. This parcel contains no vehicle access route or any developed improvements.
 - e) A private parcel (640 acres) including all of Section 1 in T15N, R12W. This private land has no vehicle access route or any developed improvements.
 - f) A private parcel (640 acres) contains all of Section 11 in T15N, R12W. This parcel contains no vehicle access route or any developed improvements.
 - g) A private parcel (60 acres) containing the SWSW quadrant & southern half of SESW quadrant of Section 15 of T15N R12W. This private land has no vehicle access route or any developed improvements.

3) There are ten cherrystemmed Wilderness Inventory Roads (three already discussed above):

Northern Boundary:

a) This cherrystem (Photopoints 38 & 39) has been recently maintained and is used to access new ranching infrastructure (Photopoint 40). The ranching infrastructure at the end of this cherrystem is excluded from the LWC unit because it is an obvious human impact.

Eastern Boundary:

b) BLM Route 7667 forms most of this cherrystem (Photopoints 53, 57 & 58) which contains signs of recent maintenance. This cherrystem accesses several campsites along Sycamore Creek, as well as two sites with water tanks for cattle. The campsites and the ranching infrastructure are excluded from the proposed LWC, along with the cherrystem, due to their impact on naturalness.

c) Another recently maintained unnamed cherrystem (Photopoint 61) along the eastern LWC unit boundary has been excluded along with a cattle tank and windmill at the end of the cherrystem.

Southern Boundary:

d) A recently maintained unnamed cherrystem (Photopoints 4 & 5) heads to the northeast from the southern unit boundary. This cherrystem, along with a corral and water tank, are excluded from the proposed LWC unit due to the impacts on naturalness.

e) Another unnamed cherrystem (Photopoint 6) with older signs of maintenance is excluded from the proposed LWC. Also excluded are a campsite near the start of the cherrystem, a corral, and a water tank and windmill.

f) This unnamed cherrystem (Photopoint 9) travels north from the southern LWC boundary starting at Waypoint 4. Portions of this cherrystem appeared to have received a fairly recent blade at the time of our inventory. This cherrystem ends at a water tank that is also excluded from the proposed LWC unit.

Western Boundary:

g) This cherrystem (Photopoint 30) has a roadside berm, indicating that it was bladed within the past few years; despite being eroded in places. This wilderness inventory road is only about a half a mile in length, and is used to access a stock tank (Photopoint 31) that is also excluded from the proposed LWC unit.

The proposed LWC is affected primarily by the forces of nature

The Aquarius Cliffs Proposed LWC contains 61,503 contiguous acres of roadless wildlands that are absolutely dominated by the forces of nature. Human impacts are concentrated toward the outer edges of the proposed LWC unit, with almost all human disturbances in the area excluded from the LWC. The large, almost completely undisturbed core of the unit is most likely rarely visited by humans due to its extreme remoteness and difficult access.

Primitive Routes

Some primitive routes (ways) occur in the unit. These routes, described in detail in Section 3, are mainly lightly used or un-used, single lane two-tracks. Some examples of such routes can be seen in Photopoints 3, 7, 14, 23, 33, and 62. It is our determination that the existence of these routes does not substantially affect the wilderness user experience. Many of the primitive routes within the proposed LWC are hidden from sight because of the considerable topographic relief within the area. The rolling terrain is braided with drainages and canyons, among numerous hills and mountains, all of which conceal the visual impact of the primitive routes. Furthermore, the enormous core of the proposed LWC unit contains absolutely no routes at all. Significant routes have been excluded from the unit or used to define the unit boundary.

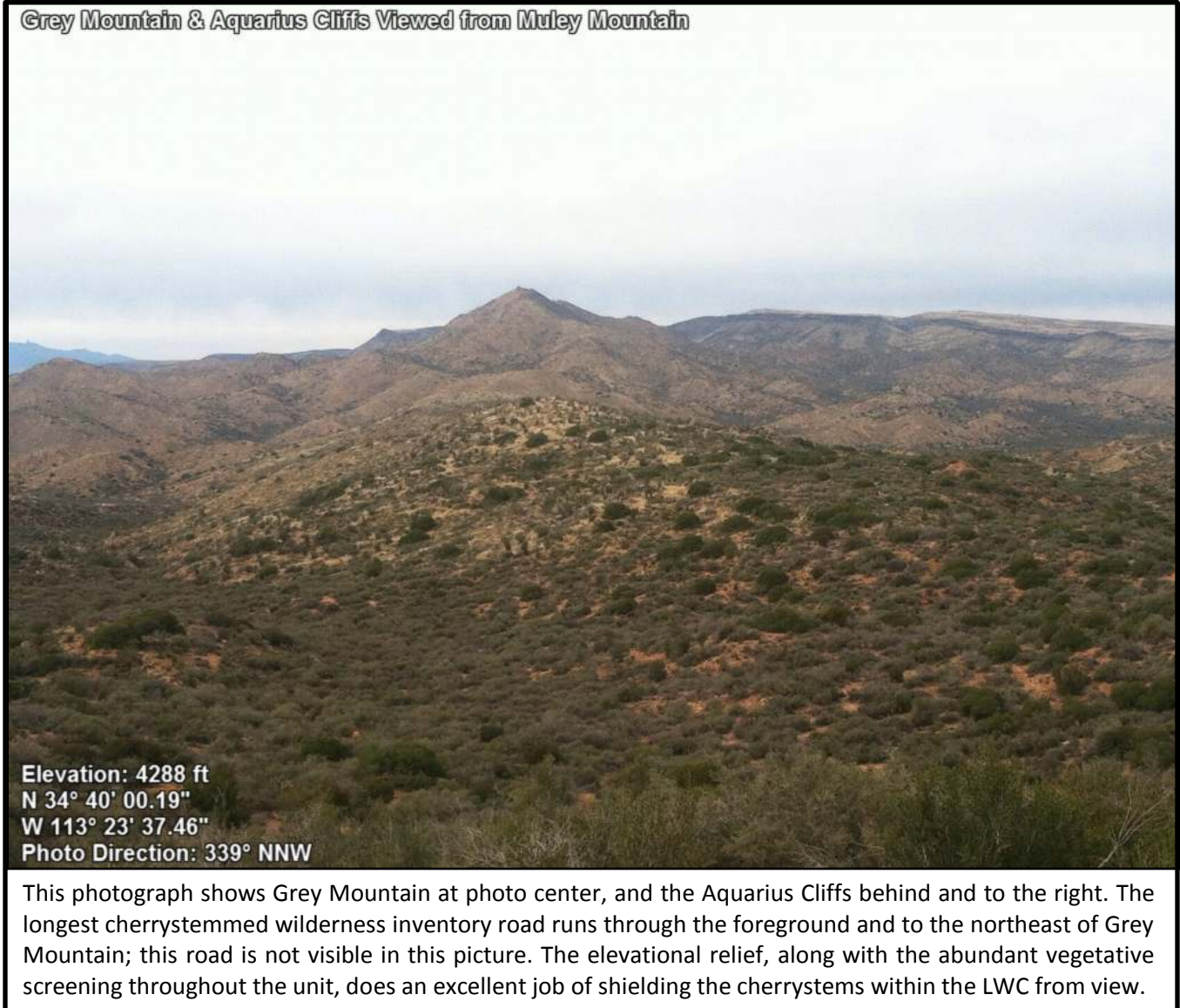
Ranch Infrastructure

Minimal ranch infrastructure occurs within the proposed LWC unit; most ranching impacts were excluded (see cherrystems and private inholding descriptions above). Although the presence of cattle grazing occurs in many locations throughout the Aquarius Cliffs Proposed LWC, the impacts caused by grazing are concentrated surrounding stock tanks, which are excluded from the proposed LWC unit. Waypoint 19 marks the location of a stock tank that was not excluded from the proposed LWC because it does not substantially affect the naturalness of the area. No wilderness inventory road is used to access the stock tank at Waypoint 19. Fencing, which is not inconsistent with wilderness character, occurs throughout the unit in low densities.

Inholdings & Cherrystems

Private parcels of land and cherrystemmed wilderness inventory roads are excluded from the Aquarius Cliffs Proposed LWC, and therefore, do not impact the naturalness of the LWC unit. As BLM 6310 clearly states, "*Human impacts outside the area will not normally be considered in assessing naturalness of an area.*" Seven out of eleven of the private inholdings have no access route or developments. Three of the remaining four private inholdings do not have any developments (aside from one with stock tanks), while only one of the inholdings has a residence.

While there are ten cherrystemmed roads, all but one of these lead to ranching infrastructure; which in many cases can be considered to be substantially unnoticeable to the average visitor. There is a large amount of elevational relief within the LWC; this complex terrain is ideal for concealing these cherrystems (see photo below). Many of the cherrystemmed roads have received recent maintenance, probably implemented by the Francis Creek Ranch. The ranch appears to have been going through a phase of updating and improving stock tanks and windmills. Many of these roads were most likely improved in order to get the new stock tanks and windmills to their proper locations, and may not be maintained again for a long time, if at all.



Radio Repeater

Photopoint 51 displays an image of a defunct radio antenna which appears to not be in service and has dead batteries. This antenna was not excluded from the proposed LWC unit because it clearly states in BLM Manual 6310 that "...minor radio repeater sites" are among the examples "of human-made features that may be considered substantially unnoticeable". AWC recommends that this radio repeater antenna be removed from public land.

Summary of Human Impacts

The human impacts described above do not substantially detract from the naturalness of the proposed LWC. To the average visitor, the Aquarius Cliffs Proposed LWC not only appears substantially natural, but incredibly wild, scenic and largely untouched. This proposed LWC is absolutely dominated by the forces of nature, not man. Substantial human impacts, such as ranching infrastructure, and mining impacts along the northern boundary have been excluded from the unit. Human impacts included within the proposed LWC do not substantially impact the wilderness experience in the area.

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

The sheer size of the Aquarius Cliffs Proposed LWC speaks volumes for the outstanding opportunities for solitude, as well as primitive and unconfined recreation. Size alone qualifies this LWC as outstanding; it is easy to find places with no sights, sounds or evidence of other people. The massive core of this LWC unit is devoid of not only roads and private inholdings, but also primitive routes. In the world that we live in today, a roadless area this large, in such a remote region, is completely outstanding.

The proposed LWC contains abundant vegetative and topographic screening. Effective vegetative screening ranges from creosote shrubs mixed with ocotillo, yucca and a variety of cacti, to chaparral communities, to pinyon-juniper woodlands. The areas with juniper and/or pinyon (pinyon was only observed in the far northern part of the unit) are especially capable of providing vegetative screening from the sights and sounds of other people. As for topographic screening, one look at the topographical map of this unit provides enough information to know that there are literally hundreds of locations with adequate topography for visitors to find seclusion.

Outstanding opportunities for mountain climbers exist throughout the Aquarius Cliffs Proposed LWC. The LWC unit contains six major mountains and mesas, with many more small mountains and hills. Hikers and climbers have plenty of options for choosing which peak to summit. Among the highest are: Burro Cliffs (multiple summits with highest two at 4,130ft and 4,220ft); Elephant Mountain (multiple summits with highest two at 5,276ft and 5,228ft); Neale Mesa (4,992ft); Goodwin Mesa (multiple summits with highest two at 5,674ft and 5,585ft); Grey Mountain (5,234ft); and Red Knob (4,290ft). These mountains range in size and shape; recreationists can select from a variety of options depending on the level of risk and remoteness they prefer. This proposed LWC is unique because it includes the summits of so many large mountains and mesas; all of which are predominantly lacking roads or ways.

Those looking for outstanding opportunities for solitude have many places to choose from within the Aquarius Cliffs Proposed LWC. The Burro Cliffs provide vertical relief to several unnamed mesas and mountain tops. These cliffs make the ascent quite risky and deter frequent visitors to these elevated locations. Nearby, Red Knob is a stunning, scenic small mountain with convoluted volcanic formations; enticing the more adventurous explorers to cave-like caverns. Between the Burro Cliffs and Red Knob, Elephant Mountain sits to the north. This striking peak does indeed look like an elephant from certain vantages, and one can spend considerable time contemplating the beauty of this very scenic mountain. Elephant Mountain offers supreme opportunities for finding seclusion. Whether visiting the top of the mountain; one of its remote saddles, ridges or drainages; the steep, featured terrain on Elephant Mountain provides for extreme off-trail exploring for only the most qualified desert scramblers.

For the less daring adventurers, solitude can be found within any one of the numerous canyons location within the proposed LWC unit. Kimble Canyon, Chalk Spring Canyon, Arrowweed Canyon, Antelope Canyon, Boner Canyon, Black Canyon, and Bull Canyon all provide abundant, outstanding opportunities to experience solitude in wilderness settings. Additionally, the East and West Forks of Sycamore Creek, as well as Bitter Creek, run ephemerally through winding canyons, with the added

Aquarius Cliffs Proposed LWC

value of flowing water; and riparian forests provide excellent vegetative screening from other humans. These canyons and creeks wind throughout the LWC unit, through extremely rough, remote country. Visitors will find that each of these canyons provides totally unique opportunities for seclusion; no two canyons are the same and each is outstanding in their own way.

Neale Mesa also offers exceptional opportunities to experience solitude. This mesa is located in such an isolated, wild area, and is an outstanding example of a high-desert native grassland ecosystem. Because no roads or primitive routes access Neale Mesa, the opportunities for finding solitude here are abundant. It is very rare to find undisturbed native grasslands on a mesa top without vehicular access. While Goodwin Mesa contains ranching infrastructure and is grazed by cattle, Neale Mesa contains no ranching infrastructure and is most likely only occasionally grazed by maverick cows that somehow find a way to the elevated grasslands. Those looking for complete solitude in an area dominated by wilderness character will not be disappointed should they find the way up Neale Mesa.

The Aquarius Mountains, which run the length of the Aquarius Cliffs Proposed LWC, are an extremely remote, rugged and complex mountain range with abundant outstanding opportunities to experience primitive and unconfined recreation. Burro and Aquarius Cliffs feature prospects for challenging rock climbing on basalt rim-rock. Many of these routes reward daring climbers with outstanding views from isolated mountain and mesa tops. For those interested in backpacking in a wilderness setting, long multi-day routes options are plentiful within the proposed LWC. Backpacking routes can connect canyons and creeks, winding their way through the remote heart of the Aquarius Cliffs Proposed LWC, summiting any of the numerous mountains along the way.

The Aquarius Mountains and Cliffs appropriately received their name due to the many springs contained within their reaches. Backpackers, as well as horse packers, have ten springs (not including the dry spring) to choose from for water resupply during multi-day adventures: Lion Spring, Arrowweed Springs, Rock Spring, Burro Spring, Hillside Spring (dry), Chalk Spring, Black Canyon Spring, Walnut Spring, and 3 more unnamed springs. This outstanding number of springs is rare within mountain ranges across the southwest. In addition to springs, creeks will flow seasonally as well.

There are outstanding hunting opportunities throughout the proposed LWC unit. Goodwin Mesa contains high-quality native grasslands that are crucial to pronghorn antelope, in fact they provide some of the Kingman Resource Area's most important pronghorn habitat (BLM 1993, p. 178). The native grasslands and savannas on Goodwin Mesa are exemplary when compared to other grasslands in the region, state, nation, and even other countries. The Nature Conservancy has determined that Goodwin Mesas grasslands among the highest quality for the central and southern regions of Arizona, and considers conservation of these habitats a regional priority (Gori & Enquist, 2003; Marshall *et al.*, 2004). Along with pronghorn antelope, Goodwin Mesa provides habitat for other recreationally important species such as bighorn sheep, javelina, Gambel's quail, mule deer, and mountain lion. Considering the high-quality habitat provided by Goodwin Mesa and the surrounding area, the hunting and wildlife observation opportunities present within the proposed LWC are without a doubt outstanding.

Aquarius Cliffs Proposed LWC

The East and West Forks of Sycamore Creek are incredibly beautiful ephemeral creeks that provide countless opportunities for primitive and unconfined recreation. Naturalists, photographers, bird watchers, and others will find the mature riparian forests of Sycamore Creek enchanting. As this forest changes with the seasons, so do the primitive recreational opportunities; for example, autumn provides for especially outstanding photographic opportunities as leaves change color on deciduous species.

Whether recreationists desire outstanding hiking, backpacking, hunting, horseback riding, climbing, photography, bird watching, or sightseeing for botanical, zoological, or geological features; the Aquarius Cliffs Proposed LWC provides a lifetime worth of exploration. This immense LWC unit not only provides outstanding opportunities for solitude, but also many outstanding opportunities for primitive and unconfined recreation.

Aquarius Cliffs Proposed LWC

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

The proposed LWC provides habitat for multiple sensitive species

Throughout this report, we have discussed how the proposed LWC protects high quality habitat for pronghorn, desert bighorn sheep, and other iconic wildlife species. The table below shows known occurrences for other sensitive species in the four USGS quadrangles that encompass the proposed LWC. These data are recorded in Arizona's Heritage database (list produced using www.habimap.org). Based on our knowledge of these species habitat requirements, green shaded species almost certainly occur in the proposed LWC, yellow shaded species may occur, and the red shaded species probably does not. The opportunity to observe these plants and animals in their native habitats is an outstanding experience for backcountry travelers. Large blocks of public land like the proposed LWC are critical for the conservation of these sensitive species.

Quad Name	Scientific Name	Common Name	USESA	USFS	BLM	STATE	GRANK	SRANK	SGCN
WIKIEUP	<i>Anaxyrus microscaphus</i>	Arizona Toad	SC				G4	S3S4	1B
WIKIEUP	<i>Antrozous pallidus</i>	Pallid Bat					G5	S4	
WIKIEUP	<i>Bat Colony</i>						GNR	SU	
WIKIEUP	<i>Buteo albonotatus</i>	Zone-tailed Hawk					G4	S4	
WIKIEUP	<i>Cicindela oregona maricopa</i>	Maricopa Tiger Beetle	SC				G5T3	S3	
WIKIEUP	<i>Empidonax traillii extimus</i>	SW Willow Flycatcher	LE				G5T2	S1	1A
WIKIEUP	<i>Gopherus morafkai</i>	Sonoran Desert Tortoise	CCA	S			G4	S4	1A
WIKIEUP	<i>Heloderma suspectum cinctum</i>	Banded Gila Monster	SC				G4T4	S4	1A
WIKIEUP	<i>Lichanura orcutti</i>	Northern Three-lined Boa					G4	S3S4	
WIKIEUP	<i>Lithobates yavapaiensis</i>	Lowland Leopard Frog	SC	S	S		G4	S3	1A
WIKIEUP	<i>Myotis velifer</i>	Cave Myotis	SC		S		G5	S3S4	1B
WIKIEUP	<i>Polygala acanthoclada</i>	Thorn Milkwort					G4	S4	
WIKIEUP	<i>Sophora arizonica</i>	Arizona Necklace					G3	S3	
WIKIEUP	<i>Stillingia linearifolia</i>	Linearleaf Sand Spurge					G4	S3S4	
WIKIEUP	<i>Tadarida brasiliensis</i>	Brazilian Free-tailed Bat					G5	S3S4	1B
TULE WASH	<i>Antrozous pallidus</i>	Pallid Bat					G5	S4	
TULE WASH	<i>Asio otus</i>	Long-eared owl					G5	S2B,S3S4N	1C
TULE WASH	<i>Bat Colony</i>						GNR	SU	
TULE WASH	<i>Buteo albonotatus</i>	Zone-tailed Hawk					G4	S4	
TULE WASH	<i>Gopherus morafkai</i>	Sonoran Desert Tortoise	CCA	S			G4	S4	1A
TULE WASH	<i>Parabuteo unicinctus</i>	Harris's hawk					G5	S5	1C
TULE WASH	<i>Sophora arizonica</i>	Arizona Necklace					G3	S3	
TULE WASH	<i>Stillingia linearifolia</i>	Linearleaf Sand Spurge					G4	S3S4	
CEDAR BASIN	<i>Agosia chrysogaster</i>	Gila longfin dace	SC		S		G4T3T4	S3S4	1B
CEDAR BASIN	<i>Bat Colony</i>						GNR	SU	
CEDAR BASIN	<i>Buteo albonotatus</i>	Zone-tailed Hawk					G4	S4	
CEDAR BASIN	<i>Buteo anthracinus</i>	Common black hawk					G4G5	S3	1C
CEDAR BASIN	<i>Lithobates yavapaiensis</i>	Lowland Leopard Frog	SC	S	S		G4	S3	1A
CEDAR BASIN	<i>Fremontodendron californicum</i>	Flannel bush			S	SR	G4	S2S3	
CEDAR BASIN	<i>Myotis velifer</i>	Cave Myotis	SC		S		G5	S3S4	1B
CEDAR BASIN	<i>Plestiodon gilberti rebricaudatus</i>	Western red-tailed skink					G5T4Q	S3S4	1C
ELEPHANT MTN	<i>Anaxyrus microscaphus</i>	Arizona Toad	SC				G4	S3S4	1B
ELEPHANT MTN	<i>Aquila chrysaetos</i>	Golden eagle			S		G5	S4	1B
ELEPHANT MTN	<i>Buteo albonotatus</i>	Zone-tailed Hawk					G4	S4	
ELEPHANT MTN	<i>Gopherus morafkai</i>	Sonoran Desert Tortoise	CCA	S			G4	S4	1A
ELEPHANT MTN	<i>Plestiodon gilberti rebricaudatus</i>	Western red-tailed skink					G5T4Q	S3S4	1C

Works Cited:

Arizona Geological Society. 2000. Geological Map of Arizona. Available online at:
<http://data.azgs.az.gov/geologic-map-of-arizona/#>.

AZGFD. 2012. Arizona's State Wildlife Action Plan: 2012-2022. Arizona Game and Fish Department, Phoenix, Arizona.

Beier, P., and D. Majka. 2006. Arizona Missing Linkages: Hualapai-Kingman Linkage Design. Report to Arizona Game and Fish Department. School of Forestry, Northern Arizona University.

BLM. 1980a. Wilderness Review: Intensive Inventory of Public Lands Administered by Bureau of Land Management. Proposal Report. Bureau of Land Management, Arizona State Office, Phoenix, AZ.

BLM. 1980b. Hualapai-Aquarius Draft Grazing Environmental Impact Statement. U.S. Department of the Interior, Bureau of Land Management, Arizona State Office, Phoenix, AZ.

BLM. 1993. Kingman Resource Area Proposed Resource Management Plan and Final Environmental Impact Statement. U.S. Department of the Interior, Bureau of Land Management, Kingman Resource Area.

Gori, David F., and Carolyn A.F. Enquist. 2003. An assessment of the spatial extent and condition of grasslands in central and southern Arizona, southwestern New Mexico, and northern Mexico. Prepared by The Nature Conservancy, Arizona Chapter. Available online at:
http://azconservation.org/downloads/category/grassland_assessment.

Marshall, R.M., D. Turner, A. Gondor, D. Gori, C. Enquist, G. Luna, R. Paredes Aguilar, S. Andersen, S. Schwartz, C. Watts, E. Lopez, and P. Comer. 2004. An ecological analysis of conservation priorities in the Apache Highlands Ecoregion. Prepared by the Nature Conservancy of Arizona, Instituto del Medio Ambiente y el Desarrollo Sustentable del estado de Sonora, agency and institutional partners. 152pp. Available online at <http://azconservation.org/projects/ecoregions>.

TNC. 2004. Biotic Communities of the Southwest (Brown and Lowe Vegetation, 1981). The Nature Conservancy, Arizona Chapter.

SECTION 3: Detailed Boundary & Routes Description

Narrative Description of the Proposed LWC Boundary

Southern Boundary

Starting with Waypoint 1, we will describe the boundaries working around the unit in a clockwise direction. Waypoint 1 is located at the far southeastern corner of the unit, just to the west of BLM Route 7657. A Bagdad Mine gas pipeline heads west from Waypoint 1 and is the southern boundary of the Aquarius Cliffs Proposed LWC unit. The gas pipeline serves as the southern LWC unit boundary for roughly 1.4 miles. Photopoint 1 displays an old route that has been reclaimed, is almost completely revegetated, and receives absolutely no use. Therefore, the old way shown in Photopoint 1 is not even a primitive route. The gas pipeline continues to be the unit border heading west. Photopoint 2 displays an image of a primitive wash route that shows no evidence of construction or maintenance, and is therefore not a wilderness inventory road as defined by BLM Manual 6310. Photopoint 3 was taken at a constriction in the same primitive wash route at which point most traffic would turn around.

Continuing west, Photopoints 4 and 5 show a cherrystem wilderness inventory road that heads north into the Aquarius Cliffs Proposed LWC unit. As the images illustrate, this road was constructed, evidenced by roadside berms, and has received a recent blade. This cherrystem road goes in and out of a wash, and serves as access to a windmill, corral, and feed station. From this wilderness inventory road, the gas pipeline continues to serve as the southern unit boundary until Waypoint 2. At Waypoint 2, a wilderness inventory road (Photopoint 8) heads north from the gas pipeline corridor. At Waypoint 2, this unnamed route becomes the southern unit boundary. This road was constructed using cut and fill techniques, is being maintained, and has been improved with culverts. At Waypoint 4, a cherrystem wilderness inventory road branches off from the southern unit boundary and heads north. This route was constructed and shows evidence of a recent blade. At Photopoint 6, the wilderness inventory road continues on the right to the northeast, and a primitive route goes left to the north. The unnamed cherrystem road that goes to the right (northeast) weaves in and out of the wash, shows evidence of construction, and eventually ends just past a windmill. Photopoint 7 displays an image of the primitive route that goes left (north) at the fork, and eventually leads to Lion Spring. Although this way was once constructed, it is not being maintained and does not meet the definition of a wilderness inventory road as defined by BLM Manual 6310. Furthermore, this primitive route is not likely to be maintained because it leads to a dry spring box, and the associated equipment is in disrepair and not being maintained. Returning to the wilderness inventory road that acts as the southern boundary to the Aquarius Cliffs Proposed LWC, Photopoint 8 depicts the general condition of the road looking to the west. This road meets back up with Burro Creek Crossing Road (BLM route 7666) at Waypoint 3, which from that point becomes the southern unit boundary for nearly a quarter mile. After almost a quarter mile, a powerline becomes the proposed LWC unit bound for just over a quarter mile at which point a wilderness inventory road heads north into the unit. This cherrystem route was constructed using cut and fill techniques, has received a recent blade, and leads to a stock tank. Photopoint 9 shows the typical condition of the route. The BLM route inventory data shows several ways leaving this road, but

Aquarius Cliffs Proposed LWC

all of these supposed routes do not exist and are just washes with no evidence that they are being used by vehicles.

From Waypoint 4, the Aquarius Cliffs Proposed LWC unit boundary follows a dry wash for about a tenth of a mile until it intercepts the BLM property line with private land. From there, the proposed southern LWC unit bound is the BLM property line all the way to Waypoint 5. At Waypoint 5, the unit bound becomes an unnamed wilderness inventory road that receives periodic maintenance and is used to access the private land. This wilderness inventory road serves as the proposed southern LWC unit bound until it once again intercepts the BLM/private property line. At that point, the Aquarius Cliffs Proposed LWC unit bound becomes the BLM property line heading west. Near Photopoint 10, a way, that is not even in the BLM route inventory data, enters the LWC unit. Photopoints 10 & 11 display images that show that while this route was constructed to access a prospecting area; this way is no longer maintained and is revegetating and slowly being reclaimed by natural forces. The prospecting has long been abandoned and is naturally rehabilitating. Photopoint 12 stands as further evidence that this primitive route is not maintained, is naturalizing, and contains no signs that it even gets used by vehicles (tracks in Photopoint 10 are from AWC's own inventory vehicle). Returning to the southern Aquarius Cliffs Proposed LWC unit boundary, the BLM property line continues to act as the unit bound heading west. The property line is the proposed LWC unit bound all the way to Waypoint 6.

Western Boundary

Waypoint 6 is the southwestern corner of the proposed LWC unit. At Waypoint 6, a powerline corridor becomes the Aquarius Cliffs Proposed LWC western unit boundary. The powerline corridor along with the associated powerline access road (BLM Route 7661) serve as the LWC boundary until they once again intercept the BLM property bound with private lands at Waypoint 7. From Waypoint 7, the BLM property line acts as the proposed LWC unit bound continuing north. At Photopoint 13, an unnamed reclaimed way (which is not in the BLM route inventory data) heads toward the LWC unit. Photopoint 14 was taken just after the reclaimed route enters the proposed LWC. As Photopoints 13 & 14 illustrate, this reclaimed way receives no maintenance and almost no vehicular use, has revegetated and has been reclaimed by nature. Furthermore, this reclaimed way serves no apparent purpose.

Returning to the Aquarius Cliffs Proposed LWC western unit boundary, the BLM property line continues to serve as the LWC unit bound. There are no roads or ways that enter the proposed LWC unit as the boundary wraps around 3 square miles of private checkerboard, as well as a smaller parcel of private land. At Photopoint 15, BLM Route 7664 (a maintained wilderness inventory road) enters BLM property and serves as the proposed LWC unit bound heading north from here. Photopoint 16 depicts an intersection of wilderness inventory roads. BLM Route 7664 turns to the east becoming a cherrystem that serves as access to a private parcel of land. As Photopoint 17 illustrates, BLM Route 7664 becomes an unmaintained way after it passes by the private parcel that it is used to access. Photopoint 17 shows the unmaintained state of the primitive route, as well as creosote brush and other vegetation growing into the corridor, further indicating a lack of maintenance.

Aquarius Cliffs Proposed LWC

Returning to the western LWC unit boundary, BLM Route 7663 heads north and serves as the Aquarius Cliffs Proposed LWC unit bound. BLM Route 7663 is the western LWC boundary until it intercepts private property to the west. From there, the BLM property line once again acts as the LWC unit boundary continuing north. At Waypoint 8, the LWC boundary turns to the east to exclude various impacts associated with two private parcels of land farther to the east. This linear feature (beginning at Waypoint 8 and heading east) appears to most likely be a waterline or some other utility corridor that already has been developed, or is likely to be in the future. Photopoint 18 depicts an image of this linear feature that serves as a portion of the proposed LWC boundary. This linear feature along with the private property bounds act as the LWC boundary continuing east. Photopoint 19 depicts a wilderness inventory road that parallels the utility line to the north, and also serves as the proposed LWC unit boundary. To be clear, the narrow strip of land between these human created impacts is excluded from the proposed LWC unit. Photopoint 20 shows this route (seen in Photopoint 19) after leaving the farthest east private land parcel. As Photopoint 20 depicts, the route is revegetating and is no longer maintained; making it a primitive way, not a road, after it leaves the private land.

Returning to the Aquarius Cliffs Proposed LWC western unit boundary, Photopoint 21 shows the junction of two wilderness inventory roads; the road to the right is the unnamed unit boundary road previously depicted in Photopoint 19, and road to the left is BLM Route 7663. BLM Route 7663 serves as the proposed LWC unit boundary heading north. At Photopoint 22, the proposed LWC unit bound becomes BLM Route 7662; another maintained wilderness inventory road. BLM Route 7662 is the proposed LWC unit boundary until Waypoint 9. At Waypoint 9, the proposed boundary turns to the east, and then immediately north, in order to exclude some well-maintained corrals, new windmill and new stock tanks. Photopoint 23 displays an image of BLM Route 7662 heading into the proposed LWC after leaving the excluded ranching infrastructure area. As Photopoint 23 illustrates, BLM Route 7662 is no longer maintained, is revegetating and receives very light vehicular use; and is therefore a primitive route, not a road. At Waypoint 10, the Aquarius Cliffs Proposed LWC unit boundary heads west in a dry wash, named Bitter Creek, in order to avoid multiple vehicle route impacts directly to the south. The proposed LWC boundary continues in the wash all the way until the wash intersects with the BLM property boundary. At this point the BLM property line becomes the LWC unit bound once again. The BLM property line continues north, then west, and then south to Waypoint 11. At Waypoint 11, the proposed LWC unit bound turns to the east becoming an unnamed way (Photopoint 24) for about four tenths of a mile, then becomes the powerline corridor and continues to the northwest. Photopoint 25 depicts an unnamed way entering the proposed LWC. The photograph shows that this route is not being maintained, and indeed the way appears to end a short distance up the dry wash where a down tree is blocking the way. The BLM route inventory data indicates that this "Need to Verify" primitive route continues quite a distance up the dry wash, but there was no evidence on the ground that this is the case.

The powerline and gas pipeline continue to serve as the Aquarius Cliffs Proposed LWC unit boundary along with the powerline access road (BLM Route 7661). The powerline is the LWC boundary heading to the northwest until it intersects with Chollo Canyon Ranch Road (BLM Route 7675), which is a maintained, heavily used wilderness inventory road and the proposed LWC unit bound. Photopoint 26

was taken looking up a natural dry wash. The BLM route inventory data displays a route in this wash, but there was no evidence of construction, maintenance, or vehicular use of this wash at the time of the Arizona Wilderness Coalition LWC inventory. Continuing north along the LWC boundary (Chollo Canyon Ranch Road) Waypoint 12 marks the northwestern corner of the Aquarius Cliffs Proposed LWC unit.

Northern Boundary

From Waypoint 12, the Aquarius Cliffs Proposed LWC unit boundary turns to the east up an unnamed road that the BLM route inventory describes as a 2-WD tertiary route that gets heavy use. This road becomes a primitive route within roughly one mile to the east of Waypoint 12. Photopoint 27 displays an image of this primitive route, which serves as the proposed LWC unit boundary for just a short distance. The way shown in Photopoint 27 leads to a well-maintained windmill and stock tanks that are excluded from the LWC. Although the way seen in Photopoint 27 did not contain evidence of maintenance, it is likely to be maintained to reach the ranch infrastructure. The proposed LWC boundary follows the primitive route seen in Photopoint 27 until Waypoint 13. From Waypoint 13, the boundary cuts directly up to the BLM property line. Photopoint 28 depicts an image of a primitive route within the LWC unit. The way in Photopoint 28 shows no evidence of construction or maintenance, and has no apparent purpose. The proposed LWC boundary follows the BLM property line for just over one-tenth of a mile, where it then cuts east to meet up once again with the BLM property line. The LWC unit boundary follows a dry wash and the BLM property line to Waypoint 14. From Waypoint 14, the proposed LWC unit boundary follows a dry wash which eventually becomes the wilderness inventory road seen in Photopoint 29. This road contains evidence of maintenance within the past few years (roadside berms) and is used to access a new windmill and a stock tank (Photopoint 31). A cherrystem cuts into the Aquarius Cliffs Proposed LWC unit boundary in this area. Photopoint 30 depicts an image of the cherrystem showing that although some erosion has inflicted damage, the road appears to have been bladed within the last few years. Directly to the north of Photopoint 30, the BLM route inventory data displays a 'Need to Verify' route, but this is only a natural wash and there is no route in this drainage. The cherrystem (Photopoint 30) ends at the stock tank and windmill (Photopoint 31), which were also excluded from the proposed LWC.

Returning to the northern boundary and continuing to the northeast, Photopoint 32 is the next point of interest. Photopoint 32 displays an image of a stock tank and windmill, and a section of an unnamed road that serves as the LWC unit bound for a short distance. Although this wilderness inventory road contains no recent evidence of maintenance, there was old evidence that this road has received maintenance in the not-so-distant past. Continuing to the northeast, Photopoint 33 depicts a way entering the proposed LWC. As seen in Photopoint 33, this unnamed way contains no evidence of construction, is not being maintained, serves no apparent purpose, and is revegetating. Heading north along the proposed LWC unit boundary, Photopoint 34 displays another image of the wilderness inventory road that serves as the proposed LWC boundary. As the photo shows, there are roadside berms indicating past maintenance. Photopoint 35 displays an image of the same wilderness inventory road at its start. To the north of Photopoint 35, BLM Route 7658 (maintained wilderness inventory

Aquarius Cliffs Proposed LWC

road) becomes the Aquarius Cliffs Proposed LWC unit boundary. Continuing along the proposed LWC unit boundary (BLM Route 7658) Photopoint 36 depicts a primitive way entering the LWC unit. As the photograph illustrates, this way was constructed, but has not been maintained, serves no apparent purpose, goes only a very short distance and is barely used. Moving south along the proposed LWC unit boundary, Photopoint 37 is an image that shows the wilderness inventory road (BLM Route 7658) that serves as the LWC bound traveling into the distance to the west. This road is well-used, has received a recent blade, and contains improvements such as water bars and other drainage features.

Heading southeast along the Aquarius Cliffs Proposed LWC unit boundary, Photopoint 38 depicts a cherrystem wilderness inventory road that has been excluded from the LWC, as it travels south. Although the BLM route inventory does not display this road, the photo shows that this road has received a very recent blade. Photopoint 39 is another image of this cherrystem showing maintenance. The cherrystem ends at a new windmill and stock tank (Photopoint 40) that has also been excluded from the proposed LWC unit.

Returning to BLM 7658 (LWC boundary road), and continuing to the southeast, Photopoint 41 displays an image of an old mining structure and the surrounding impacts. Photopoint 41 shows a portion of the wilderness inventory road, the reclaimed mine and the upper reaches of Bull Canyon. As the photograph illustrates, the mining impacts are revegetating, have become largely naturalized, and are not substantially noticeable as a major human disturbance to the average visitor. These reclaimed impacts have been included within the proposed LWC because of how naturalized they have become. Given more time and LWC designation, these old mining impacts will surely continue to naturalize and eventually disappear. Farther south along the LWC boundary, Photopoints 42 and 43 depict a reclaimed route. As these photographs illustrate, this old route gets no vehicular use, has almost completely revegetated, and has been reclaimed by nature.

Continuing east along the Aquarius Cliffs Proposed LWC unit boundary, Waypoint 15 marks the next point of interest. Beginning at Waypoint 15, the proposed LWC boundary cuts down a drainage, heading southeast for roughly eight-tenths of a mile. Then the proposed LWC unit boundary cuts up another drainage heading northeast for two-tenths of a mile where it then intercepts the primitive route seen in Photopoint 44. The way shown in Photopoint 44 acts as the proposed LWC unit boundary for only one-twentieth of a mile until it intercepts BLM Route 7658. Then BLM Route 7658 is once again the LWC unit boundary. This deviation from using BLM Route 7658 is proposed in order to exclude an area of obvious human impacts left over from when this area was actively mined. Using the drainages and the primitive route (Photopoint 44) for the boundary (as described above) excludes several buildings and various mining scars from the proposed LWC unit.

Moving northeast along the proposed LWC unit boundary (BLM Route 7658), Photopoint 45 pictures an unnamed old primitive route with no evidence of construction or maintenance that was not identified in the BLM route inventory, but can slightly be seen on aerial photos. As evidenced by the photograph, this old way is no longer used, has revegetated and been reclaimed by nature. BLM Route 7658 is the Aquarius Cliffs Proposed LWC unit boundary until it intersects with BLM Route 7657 at Waypoint 16.

Eastern Boundary

From Waypoint 16, the Aquarius Cliffs Proposed LWC unit boundary is a well-maintained wilderness inventory road (BLM Route 7657) heading east. BLM Route 7657 (Goodwin Mesa Road) serves as the LWC bound until reaching the Francis Creek Ranch headquarters, at which point the BLM/private property line becomes the proposed LWC unit boundary. There is an area of heavily impacted BLM land directly adjacent to the Francis Creek Ranch that has also been excluded from the LWC unit because it has been heavily impacted by ranching activities. From the Francis Creek Ranch property, the proposed LWC boundary becomes BLM Route 7657 once again.

There are no routes entering the Aquarius Cliffs Proposed LWC unit along the length of BLM Route 7657 until Photopoint 46. Photopoint 46 displays an image of an unnamed cherrystem wilderness inventory road that receives periodic maintenance and is used to access a private parcel of land on Goodwin Mesa. Farther west on this road, Photopoint 47 shows the typical condition of this road. Despite appearing to be in disorder, this road is periodically bladed, and over the years of maintenance, has come to be a major feature on the mesa; another reason why it has been excluded from the LWC unit. This cherrystem road leads to the private parcel of land which is excluded from the LWC along with some adjacent ranching impacts. The cherrystem road goes through the private parcel where it splits and then passes onto BLM land once again. Photopoints 48 thru 50 show the condition of one of the ways leaving the private parcel. As the photographs illustrate, these primitive routes are lightly used ways that were not constructed and are not receiving maintenance. Photopoint 51 pictures a defunct radio antenna which appears to not be in service and has dead batteries. This antenna was not excluded from the proposed LWC unit because it clearly states in BLM Manual 6310 that "...minor radio repeater sites" are among the examples "of human-made features that may be considered substantially unnoticeable...". AWC recommends that this radio repeater antenna be removed if indeed it is defunct. Photopoint 52 displays the image of another primitive route leaving the private parcel that was obviously not constructed and is not being maintained.

Returning to the Aquarius Cliffs Proposed LWC unit boundary, BLM Route 7657 (Goodwin Mesa Road) continues to serve as the proposed unit boundary. Waypoint 17 marks the location of a campsite that was excluded from the LWC unit due to its obvious human impacts. From Waypoint 17, the proposed LWC boundary follows Goodwin Mesa Road (BLM Route 7657) down off of the mesa where the LWC boundary goes around a private parcel of land and returns to BLM Route 7657. Continuing south on BLM Route 7657 (LWC bound), Photopoint 53 was taken looking up a cherrystem road. The unnamed wilderness inventory road had received a recent blade at the time of the AWC inventory. Several heavily impacted campsites along the cherrystem have also been excluded from the proposed LWC unit. Photopoints 54 and 55 document a primitive route that leaves the cherrystem to the south. As these photographs illustrate, this way was constructed in places, but is not receiving maintenance which is evidenced by abundant vegetation growing in the middle of the road and sections of erosion. Furthermore, this primitive route appears to have no obvious purpose. Continuing northwest up the cherrystem road, Photopoint 56 displays another primitive route that leads to the ranch just to the northeast. The primitive route in Photopoint 56 was constructed, but is now growing in and is quite

Aquarius Cliffs Proposed LWC

narrow in places, severely eroded, and obviously not being maintained. It appears that this way is primarily used by cows, and probably the occasional OHV. Continuing up the cherrystem, Photopoint 57 was taken to show the recent maintenance on this wilderness inventory road. Photopoint 58 was taken where the cherrystem forks. The northerly fork ends shortly at a stock tank that was also excluded from the proposed LWC unit. Photopoint 58 displays an image of the southerly fork of the cherrystem road. As can be seen in Photopoint 58, this road was maintained in the not-so-distant past which is evidenced by roadside berms. This cherrystem continues for roughly eight-tenths of a mile before ending at an old stock tank and a natural spring that ranchers use to water their cows. Photopoint 59 stands as evidence that maintenance of the cherrystem ends at the spring and that the road is no longer maintained, making it a primitive route; evidenced by the narrow, uneven bed with abundant vegetation growing into it.

Returning to the Aquarius Cliffs Proposed LWC boundary (BLM Route 7657); Photopoint 60 is the next point of interest. The BLM route inventory displays a route entering the proposed LWC unit here. However, as the photograph illustrates, this is just a natural wash with no evidence of vehicular use. Heading south along the proposed LWC boundary, Photopoint 61 documents the next cherrystem. As Photopoint 61 shows, this wilderness inventory road has been recently bladed. This road access a stock tank, which is where the cherrystem ends. The BLM route inventory also indicates that this route ends at the stock tank. An unmaintained primitive route continues to head west from the stock tank. Photopoint 62 illustrates that this way is no longer maintained; evidence from the perennial vegetation growing in the median and a lack of roadside berms. Additionally, this primitive route goes down an unsustainably steep slope about half a mile before dead ending in creek. There is no evidence of a primitive route or any vehicular use once this way hits the creek.

Returning to the eastern proposed LWC boundary and continuing south, Photopoint 63 depicts an unmaintained way that goes about a quarter of a mile into the LWC unit. The photograph clearly illustrates that this way is not being maintained. This primitive route serves no apparent purpose and dead ends near a wash after just over a quarter mile. Heading south down the proposed LWC boundary (BLM Route 7657), there are no more roads or ways that enter the proposed LWC unit. Waypoint 18 marks the location where a corral and windmill have been excluded from the Aquarius Cliffs Proposed LWC unit. BLM Route 7657 serves as the remainder of the proposed LWC unit boundary heading south all the way back to Waypoint 1, and there are no roads or ways that permeate the LWC boundary between Waypoint 18 and Waypoint 1.

SECTION 4: Photopoint Data

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

Attributes	
Title	Photopoint 001
Unit name	Aquarius Cliffs
Route name	Not Named
Determination	Reclaimed/Not a Route
Maintenance	None
Feature	Typical condition of reclaimed way

Photopoint 001. An old route that has revegetated and naturalized.

The figure consists of two side-by-side images. On the left is a satellite-style aerial map showing a terrain with sparse vegetation. A red arrow points to a specific location on the map. On the right is a ground-level photograph of a dirt path in a dry, hilly landscape with scrubby bushes and trees. The path appears to be an old, naturalized route. The photograph includes a timestamp '1/31/201' in the bottom right corner. At the bottom of the figure, there is a data block containing the following information: 'DigitalGlobe, USDA Farm Service Agency' on the left, 'N 34° 36' 46.29"' and 'W 113° 24' 32.81"' in the center, and '3327 ft' on the right.

Attributes	
Title	Photopoint 002
Unit name	Aquarius Cliffs
Route name	Not Named
Determination	Way
Maintenance	None
Feature	Typical condition of Route/Way

Photopoint 002. Looking northeast up a primitive route in a dry wash.

The figure consists of two side-by-side images. On the left is a satellite-style aerial map showing a terrain with sparse vegetation. A red arrow points to a specific location on the map. On the right is a ground-level photograph of a dirt path in a dry wash, looking northeast up a hillside. The path is a primitive route. The photograph includes a timestamp '1/31/201' in the bottom right corner. At the bottom of the figure, there is a data block containing the following information: 'DigitalGlobe, USDA Farm Service Agency' on the left, 'N 34° 37' 05.82"' and 'W 113° 25' 12.64"' in the center, and '3159 ft' on the right.

Attributes	
Title	Photopoint 003
Unit name	Aquarius Cliffs
Route name	Not Named
Determination	Way
Maintenance	None
Feature	Typical condition of Route/Way

Photopoint 003. Showing the point at which most vehicles would turn around.

The figure consists of two side-by-side images. On the left is a satellite-style aerial map showing a terrain with sparse vegetation. A red arrow points to a specific location on the map. On the right is a ground-level photograph of a dirt path in a dry wash, showing a sharp turn or a point where vehicles would typically turn around. The path is a primitive route. The photograph includes a timestamp '1/31/201' in the bottom right corner. At the bottom of the figure, there is a data block containing the following information: 'DigitalGlobe, USDA Farm Service Agency' on the left, 'N 34° 37' 13.35"' and 'W 113° 24' 53.96"' in the center, and '3189 ft' on the right.

Aquarius Cliffs Proposed LWC

Attributes	
Title	Photopoint 004
Unit name	Aquarius Cliffs
Route name	None
Determination	Road
Maintenance	Recent blade
Feature	Typical condition of Route/Way

Photopoint 004. A wilderness inventory road that forms a short cherrystem within the proposed LWC unit.



Attributes	
Title	Photopoint 005
Unit name	Aquarius Cliffs
Route name	Not Named
Determination	Road
Maintenance	Old evidence
Feature	Typical condition of Route/Way

Photopoint 005. This short cherrystem provides access to a windmill, corral and feed station.



Attributes	
Title	Photopoint 006
Unit name	Aquarius Cliffs
Route name	Not Named
Determination	Road
Maintenance	Portions bladed
Feature	Typical condition of Route/Way

Photopoint 006. Portions of this road have been bladed.

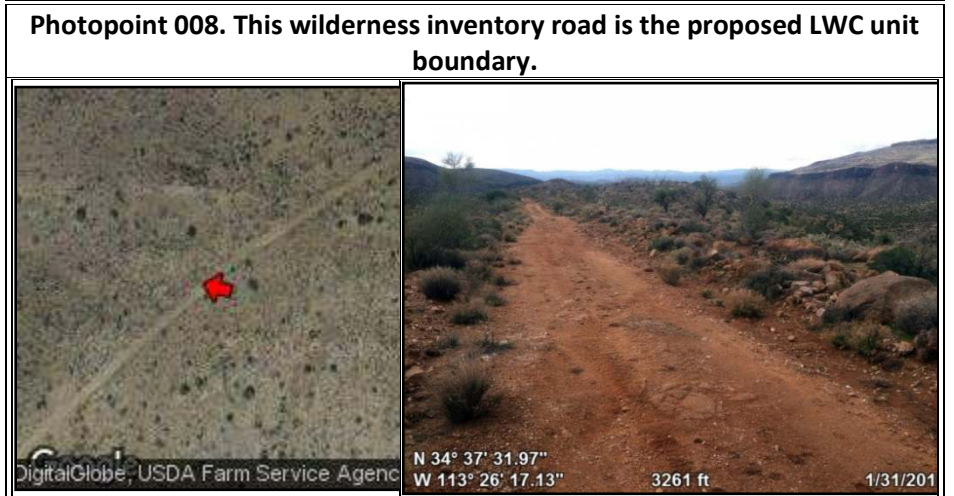


Aquarius Cliffs Proposed LWC

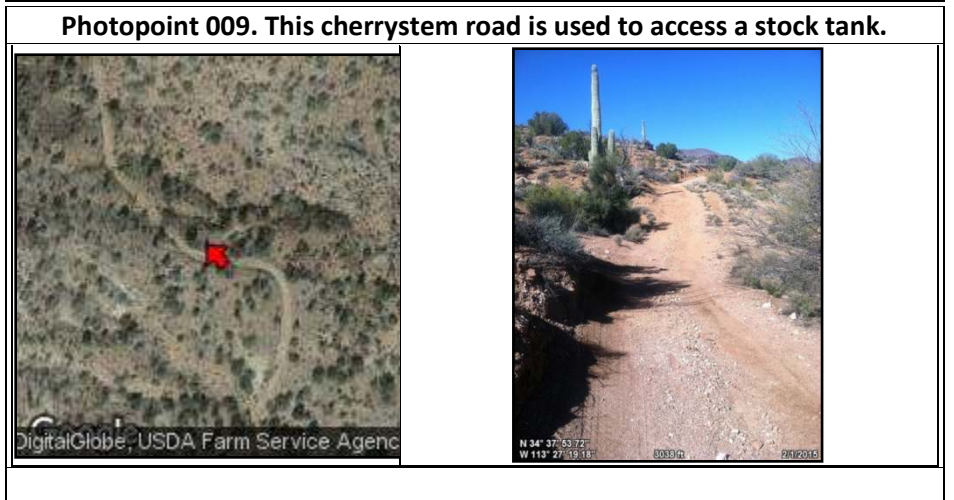
Attributes	
Title	Photopoint 007
Unit name	Aquarius Cliffs
Route name	Not Named
Determination	Way
Maintenance	None
Feature	Typical condition of Route/Way



Attributes	
Title	Photopoint 008
Unit name	Aquarius Cliffs
Route name	Not Named
Determination	Road
Maintenance	Recent blade
Feature	Typical condition of Route/Way



Attributes	
Title	Photopoint 009
Unit name	Aquarius Cliffs
Route name	Not Named
Determination	Road
Maintenance	Recent blade in places
Feature	Typical condition of Route/Way



Aquarius Cliffs Proposed LWC

Attributes	
Title	Photopoint 010
Unit name	Aquarius Cliffs
Route name	Not Named
Determination	Way
Maintenance	None
Feature	Typical condition of Route/Way

Photopoint 010. This way used to be used to access a small old prospecting site that is revegetating.



Attributes	
Title	Photopoint 011
Unit name	Aquarius Cliffs
Route name	Not Named
Determination	Way
Maintenance	None
Feature	Typical condition of Route/Way

Photopoint 011. This primitive route is growing very narrow in places and contained no evidence of vehicular use.



Attributes	
Title	Photopoint 012
Unit name	Aquarius Cliffs
Route name	Not Named
Determination	Way
Maintenance	None
Feature	Natural wash

Photopoint 012. The wash has naturalized and there is no evidence of a way in the wash at all.



Aquarius Cliffs Proposed LWC

Attributes	
Title	Photopoint 013
Unit name	Aquarius Cliffs
Route name	Not Named
Determination	Reclaimed
Maintenance	None
Feature	Erosion

Photopoint 013. This photo was taken off of BLM property.

Attributes	
Title	Photopoint 014
Unit name	Aquarius Cliffs
Route name	Not Named
Determination	Reclaimed
Maintenance	None
Feature	Revegetated

Photopoint 014. This is where the reclaimed way passes onto BLM property.

Attributes	
Title	Photopoint 015
Unit name	Aquarius Cliffs
Route name	BLM Route 7664
Determination	Road
Maintenance	Recent blade
Feature	Typical condition of Route/Way

Photopoint 015. Wilderness inventory road and proposed LWC unit boundary.

Aquarius Cliffs Proposed LWC

Attributes	
Title	Photopoint 016
Unit name	Aquarius Cliffs
Route name	BLM Routes 7663 & 7664
Determination	Roads
Maintenance	Recent blade
Feature	Junction of Routes/Ways

Photopoint 016. Aquarius Cliffs Proposed LWC unit boundary on the left and a cherrystem road that leads to a private parcel of land on the right.



Attributes	
Title	Photopoint 017
Unit name	Aquarius Cliffs
Route name	BLM Route 7664
Determination	Way
Maintenance	None
Feature	Typical condition of Route/Way

Photopoint 017. The road ends at the private parcel and an unmaintained primitive route leaves the private land heading east.



Attributes	
Title	Photopoint 018
Unit name	Aquarius Cliffs
Route name	Not Named
Determination	Utility line
Maintenance	Likely
Feature	Revegetated

Photopoint 018. Potential utility line.



Aquarius Cliffs Proposed LWC

Attributes	
Title	Photopoint 019
Unit name	Aquarius Cliffs
Route name	Not Named
Determination	Road
Maintenance	Likely if needed
Feature	Erosion

Photopoint 019. This road is likely to be maintained because it serves as access to two private parcels of land.

Attributes	
Title	Photopoint 020
Unit name	Aquarius Cliffs
Route name	Not Named
Determination	Way
Maintenance	None
Feature	Revegetating

Photopoint 020. An unmaintained primitive route passing from private land to BLM property.

Attributes	
Title	Photopoint 021
Unit name	Aquarius Cliffs
Route name	Junction of BLM Route 7663 & unnamed wilderness inventory road
Determination	Road
Maintenance	Likely if needed
Feature	Junction of Routes/Ways

Photopoint 021. The proposed LWC unit boundary is on the left and a cherrystem road that accesses private lands is on the right.

Aquarius Cliffs Proposed LWC

Attributes	
Title	Photopoint 022
Unit name	Aquarius Cliffs
Route name	BLM Route 7662
Determination	Road
Maintenance	Recent blade
Feature	Typical condition of Route/Way

Photopoint 022. This wilderness inventory road is the proposed LWC unit boundary.



Attributes	
Title	Photopoint 023
Unit name	Aquarius Cliffs
Route name	BLM Route 7662
Determination	Way
Maintenance	None
Feature	Revegetating

Photopoint 023. This primitive route is in the process of naturalizing.



Attributes	
Title	Photopoint 024
Unit name	Aquarius Cliffs
Route name	Not Named
Determination	Way
Maintenance	None
Feature	Typical condition of Route/Way

Photopoint 024. This primitive way serves as the proposed LWC unit boundary for a short distance.



Aquarius Cliffs Proposed LWC

Attributes	
Title	Photopoint 025
Unit name	Aquarius Cliffs
Route name	Not Named
Determination	Way
Maintenance	None
Feature	Typical condition of Route/Way

Photopoint 025. This primitive wash route travels just a short distance up this dry wash before the way is blocked by a down tree.



Attributes	
Title	Photopoint 026
Unit name	Aquarius Cliffs
Route name	Not Named
Determination	Not a route
Maintenance	None
Feature	Natural wash

Photopoint 026. This natural wash contained no evidence of vehicular use at the time of the AWC inventory.



Attributes	
Title	Photopoint 027
Unit name	Aquarius Cliffs
Route name	Not Named
Determination	Road
Maintenance	None
Feature	Windmill

Photopoint 027. This route is likely to be maintained, should the need occur, in order to reach ranching infrastructure.



Aquarius Cliffs Proposed LWC

Attributes	
Title	Photopoint 028
Unit name	Aquarius Cliffs
Route name	Not Named
Determination	Way
Maintenance	None
Feature	Revegetating

Photopoint 028. A way that is growing in with vegetation.

Attributes	
Title	Photopoint 029
Unit name	Aquarius Cliffs
Route name	Not Named
Determination	Road
Maintenance	Old blade evidence
Feature	Roadside berms

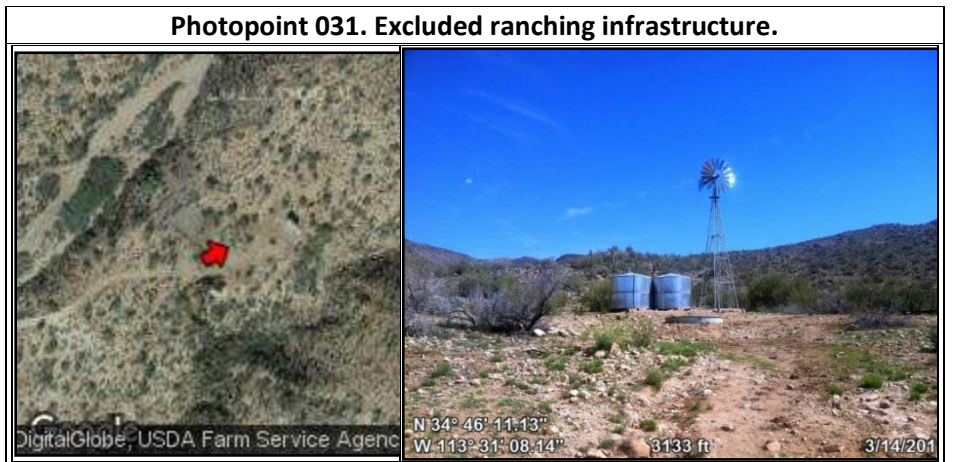
Photopoint 029. This wilderness inventory road contains sidecast from being bladed in the past.

Attributes	
Title	Photopoint 030
Unit name	Aquarius Cliffs
Route name	Not Named
Determination	Road
Maintenance	Old evidence
Feature	Berm indicating bladed in past few years

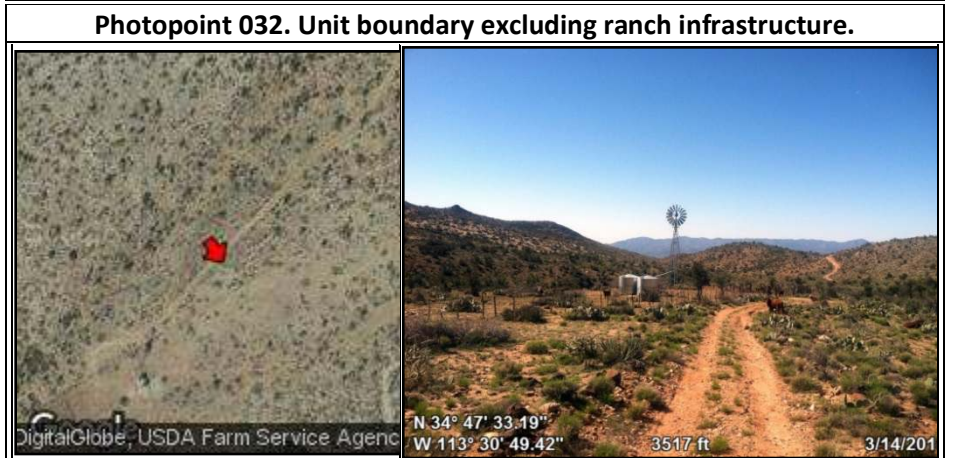
Photopoint 030. A cherrystem road that eventually leads to a stock tank and windmill.

Aquarius Cliffs Proposed LWC

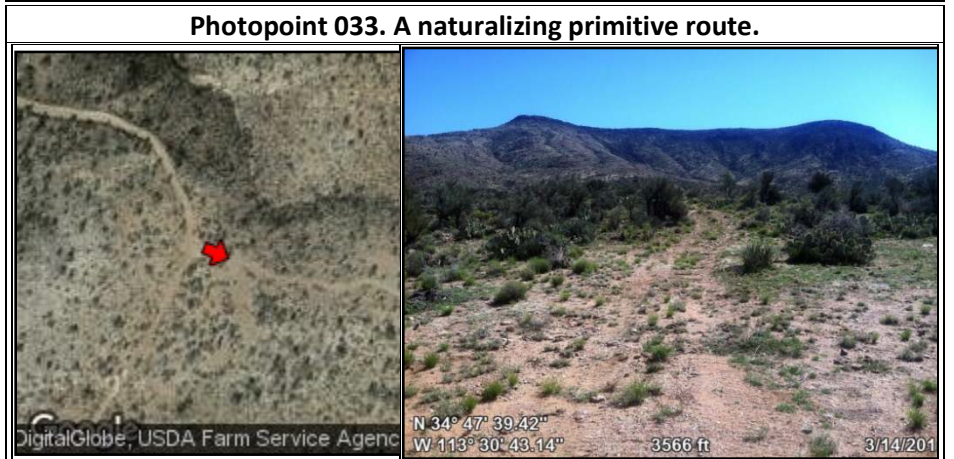
Attributes	
Title	Photopoint 031
Unit name	Aquarius Cliffs
Route name	Not Named
Determination	Road
Maintenance	Old evidence
Feature	Windmill



Attributes	
Title	Photopoint 032
Unit name	Aquarius Cliffs
Route name	Not Named
Determination	Road
Maintenance	Old evidence
Feature	Windmill



Attributes	
Title	Photopoint 033
Unit name	Aquarius Cliffs
Route name	Not Named
Determination	Way
Maintenance	None
Feature	Typical condition of Route/Way



Aquarius Cliffs Proposed LWC

Attributes	
Title	Photopoint 034
Unit name	Aquarius Cliffs
Route name	Not Named
Determination	Road
Maintenance	Old evidence of blading
Feature	Roadside berm

Photopoint 034. Despite erosion, this road contains evidence of maintenance.

Attributes	
Title	Photopoint 035
Unit name	Aquarius Cliffs
Route name	Not Named
Determination	Road
Maintenance	Evidence in places
Feature	Typical condition of Route/Way

Photopoint 035. Proposed LWC unit boundary.

Attributes	
Title	Photopoint 036
Unit name	Aquarius Cliffs
Route name	Not Named
Determination	Way
Maintenance	None
Feature	Typical condition of Route/Way

Photopoint 036. This primitive route travels just a short distance before ending with no apparent purpose.

Aquarius Cliffs Proposed LWC

Attributes	
Title	Photopoint 037
Unit name	Aquarius Cliffs
Route name	BLM Route 7658
Determination	Road
Maintenance	Recent blade
Feature	Typical condition of Route/Way

Photopoint 037. The wilderness inventory road heading into the distance to the northwest.



Attributes	
Title	Photopoint 038
Unit name	Aquarius Cliffs
Route name	Not Named
Determination	Road
Maintenance	Recent blade
Feature	Windmill

Photopoint 038. This cherrystem road has received very recent maintenance.



Attributes	
Title	Photopoint 039
Unit name	Aquarius Cliffs
Route name	Not Named
Determination	Road
Maintenance	Recent blade
Feature	Windmill

Photopoint 039. Roadside berms indicate recent maintenance.



Aquarius Cliffs Proposed LWC

Attributes	
Title	Photopoint 040
Unit name	Aquarius Cliffs
Route name	Not Named
Determination	Road
Maintenance	Recent blade
Feature	Windmill

Photopoint 040. Excluded ranch infrastructure at the end of the cherrystem.



Attributes	
Title	Photopoint 041
Unit name	Aquarius Cliffs
Route name	Not Named
Determination	Road
Maintenance	Bladed in places
Feature	Naturalizing mining impacts

Photopoint 041. Photograph featuring the proposed LWC unit boundary to the far left and naturalizing mining disturbances to the right. In the distance, the upper reaches of Bull Canyon are visible.



Attributes	
Title	Photopoint 042
Unit name	Aquarius Cliffs
Route name	Not Named
Determination	Reclaimed
Maintenance	None
Feature	Revegetated

Photopoint 042. An old way that has naturalized and been reclaimed by nature, indicating that this area is indeed dominated by the forces of nature, not man.



Aquarius Cliffs Proposed LWC

Attributes	
Title	Photopoint 043
Unit name	Aquarius Cliffs
Route name	Not Named
Determination	Reclaimed
Maintenance	None
Feature	Revegetated

Photopoint 043. The southern end of a reclaimed primitive route.

Attributes	
Title	Photopoint 044
Unit name	Aquarius Mtns
Route name	Not Named
Determination	Way
Maintenance	None
Feature	Typical condition of Route/Way

Photopoint 044. This way serves as the proposed LWC unit boundary for a very short distance.

Attributes	
Title	Photopoint 045
Unit name	Aquarius Cliffs
Route name	Not Named
Determination	Reclaimed
Maintenance	None
Feature	Typical condition of Route/Way

Photopoint 045. This old way has been reclaimed by nature.

Aquarius Cliffs Proposed LWC

Attributes	
Title	Photopoint 046
Unit name	Aquarius Cliffs
Route name	Not Named
Determination	Road
Maintenance	Recent earthwork
Feature	Junction of Routes/Ways

Photopoint 046. This cherrystem road serves as access to a private parcel of land.



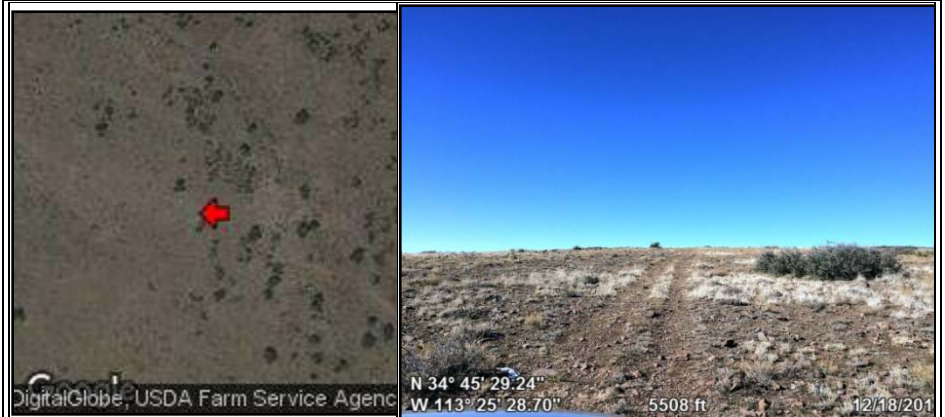
Attributes	
Title	Photopoint 047
Unit name	Aquarius Cliffs
Route name	Not Named
Determination	Road
Maintenance	Old evidence
Feature	Typical condition of Route/Way

Photopoint 047. This cherrystem is receives an occasional blade.



Attributes	
Title	Photopoint 048
Unit name	Aquarius Cliffs
Route name	Not Named
Determination	Road
Maintenance	None
Feature	Typical condition of Route/Way

Photopoint 048. An unmaintained primitive route.



Aquarius Cliffs Proposed LWC

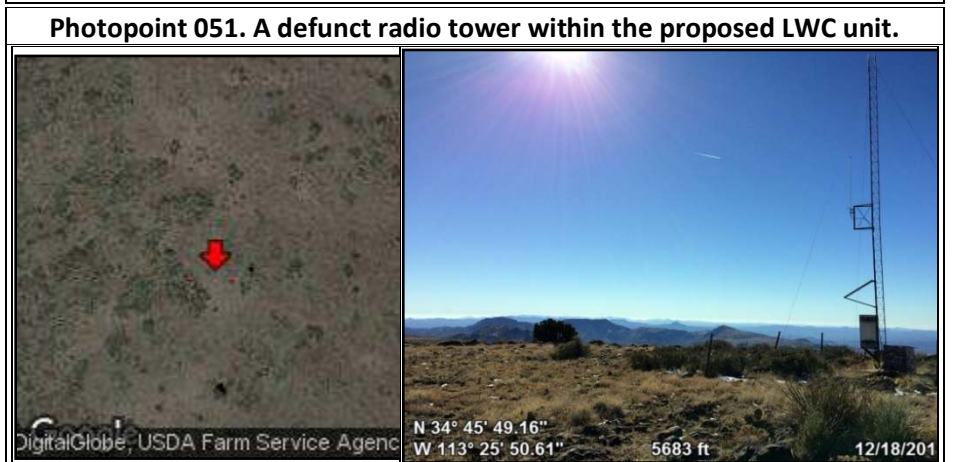
Attributes	
Title	Photopoint 049
Unit name	Aquarius Cliffs
Route name	Not Named
Determination	Way
Maintenance	None
Feature	Typical condition of Route/Way



Attributes	
Title	Photopoint 050
Unit name	Aquarius Cliffs
Route name	Not Named
Determination	Way
Maintenance	None
Feature	Typical condition of Route/Way



Attributes	
Title	Photopoint 051
Unit name	Aquarius Cliffs
Route name	Not Named
Determination	Way
Maintenance	None
Feature	Defunct antenna. Battery fried. Appears not in service.



Aquarius Cliffs Proposed LWC

Attributes	
Title	Photopoint 052
Unit name	Aquarius Cliffs
Route name	Not Named
Determination	Way
Maintenance	None
Feature	Typical condition of Route/Way

Photopoint 052. Another unmaintained primitive route leaving the private parcel of land.



Attributes	
Title	Photopoint 053
Unit name	Aquarius Cliffs
Route name	Not Named
Determination	Road
Maintenance	Recent blade
Feature	Junction of Routes/Ways

Photopoint 053. This cherrystem leads to a few campsites and eventually to a stock tank and a spring.



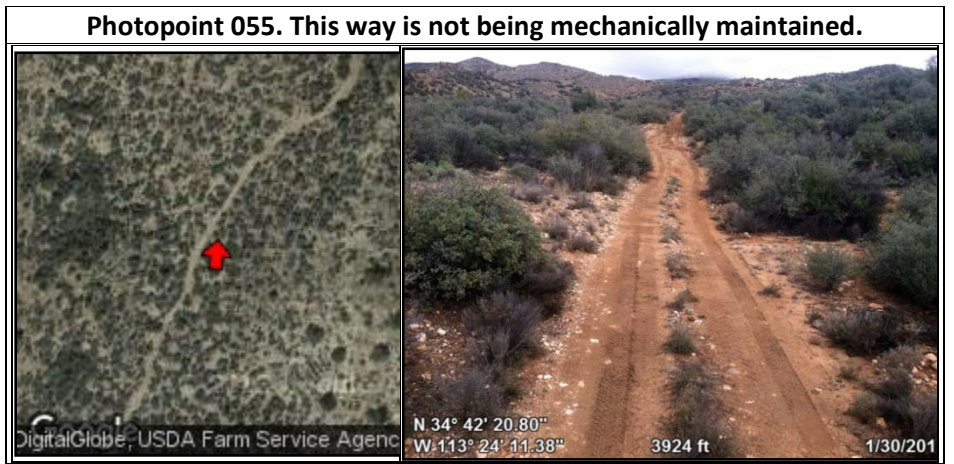
Attributes	
Title	Photopoint 054
Unit name	Aquarius Cliffs
Route name	Not Named
Determination	Way
Maintenance	None
Feature	Typical condition of Route/Way

Photopoint 054. No evidence of maintenance along this way.



Aquarius Cliffs Proposed LWC

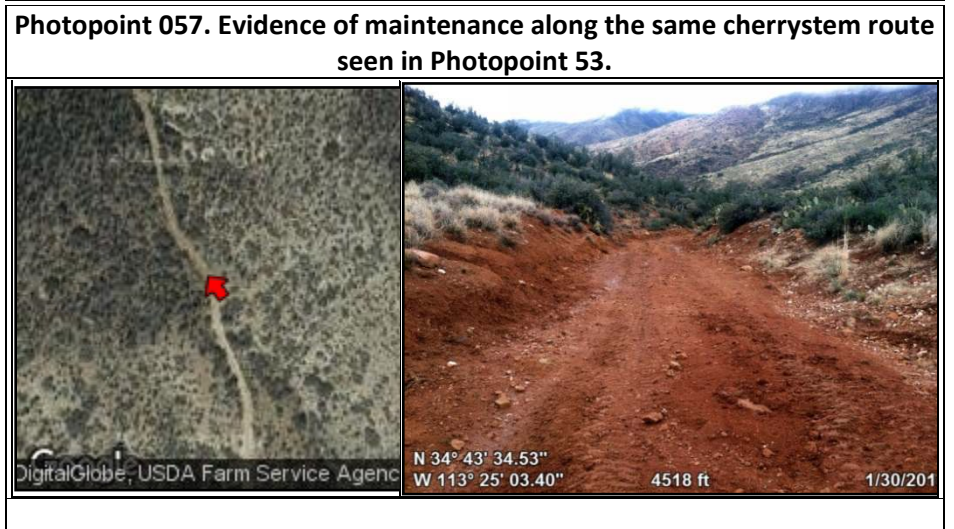
Attributes	
Title	Photopoint 055
Unit name	Aquarius Cliffs
Route name	Not Named
Determination	Way
Maintenance	None
Feature	Typical condition of Route/Way



Attributes	
Title	Photopoint 056
Unit name	Aquarius Cliffs
Route name	Not Named
Determination	Way
Maintenance	None
Feature	Erosion



Attributes	
Title	Photopoint 057
Unit name	Aquarius Cliffs
Route name	Not Named
Determination	Road
Maintenance	Recent blade
Feature	Livestock Watering/Feeding station



Aquarius Cliffs Proposed LWC

Attributes	
Title	Photopoint 058
Unit name	Aquarius Cliffs
Route name	Not Named
Determination	Road
Maintenance	Recent earthwork in drainage
Feature	Typical condition of Route/Way

Photopoint 058. Evidence of recent earthwork in the drainage along the cherrystem road.

The image consists of two side-by-side photographs. The left photograph is an aerial view from DigitalGlobe, showing a network of dirt roads in a hilly, brush-covered area. A red arrow points to a specific location on one of the roads. The right photograph is a ground-level view of a dirt road, showing tire tracks and uneven terrain. The road appears to be recently cleared or maintained. The background shows a clear blue sky and distant hills.

Metadata for the ground-level photo: N 34° 44' 04.25", W 113° 25' 57.84", 4061 ft, 12/18/201

Attributes	
Title	Photopoint 059
Unit name	Aquarius Cliffs
Route name	Not Named
Determination	Way
Maintenance	None
Feature	Narrow corridor

Photopoint 059. The cherrystem ends at a spring at which point the route becomes an unmaintained way as seen in this photograph.

The image consists of two side-by-side photographs. The left photograph is an aerial view from DigitalGlobe, showing a network of dirt roads. A red arrow points to a narrow, unpaved path. The right photograph is a ground-level view of a narrow, unpaved path or way, showing sparse vegetation and a natural spring area. The terrain is hilly and brush-covered.

Metadata for the ground-level photo: N 34° 43' 35.02", W 113° 26' 29.82", 3921 ft, 12/18/201

Attributes	
Title	Photopoint 060
Unit name	Aquarius Cliffs
Route name	Not Named
Determination	Not a road or a way
Maintenance	None
Feature	Natural wash

Photopoint 060. This is just a natural wash.

The image consists of two side-by-side photographs. The left photograph is an aerial view from DigitalGlobe, showing a network of dirt roads. A red arrow points to a natural wash or drainage area. The right photograph is a ground-level view of a natural wash, showing a dry, rocky stream bed surrounded by brush and hills. The terrain is hilly and brush-covered.

Metadata for the ground-level photo: N 34° 41' 16.13", W 113° 23' 55.34", 3904 ft, 12/18/201

Aquarius Cliffs Proposed LWC

Attributes	
Title	Photopoint 061
Unit name	Aquarius Cliffs
Route name	Not Named
Determination	Road
Maintenance	Recent blade
Feature	Typical condition, along with recent mechanical maintenance

Photopoint 061. This cherrystem has also received recent maintenance.

Attributes	
Title	Photopoint 062
Unit name	Aquarius Cliffs
Route name	Not Named
Determination	Way
Maintenance	None
Feature	Typical condition of Route/Way

Photopoint 062. There are no signs of maintenance past the stock tank.

Attributes	
Title	Photopoint 063
Unit name	Aquarius Cliffs
Route name	Not Named
Determination	Way
Maintenance	None
Feature	Typical condition of Route/Way

Photopoint 063. This way is kept open solely by the passage of vehicles.