

**Summary of Findings and Conclusion**

Unit Name and Number: **WIU #CDCA 184-1, Middle Knob**

Summary

Results of Analysis:

1. Does the area meet any of the size requirements? **Yes**
2. Does the area appear to be natural? **Yes**
3. Does the area offer outstanding opportunities for solitude or a primitive and unconfined type of recreation? **Yes**
4. Does the area have supplemental values? **Yes**

Conclusion

**The area has wilderness characteristics.**

**Prepared by:**

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Date: 05-30-13

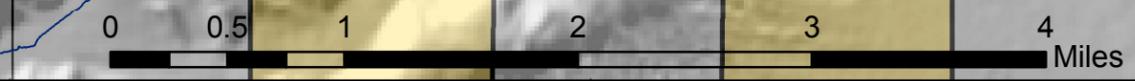
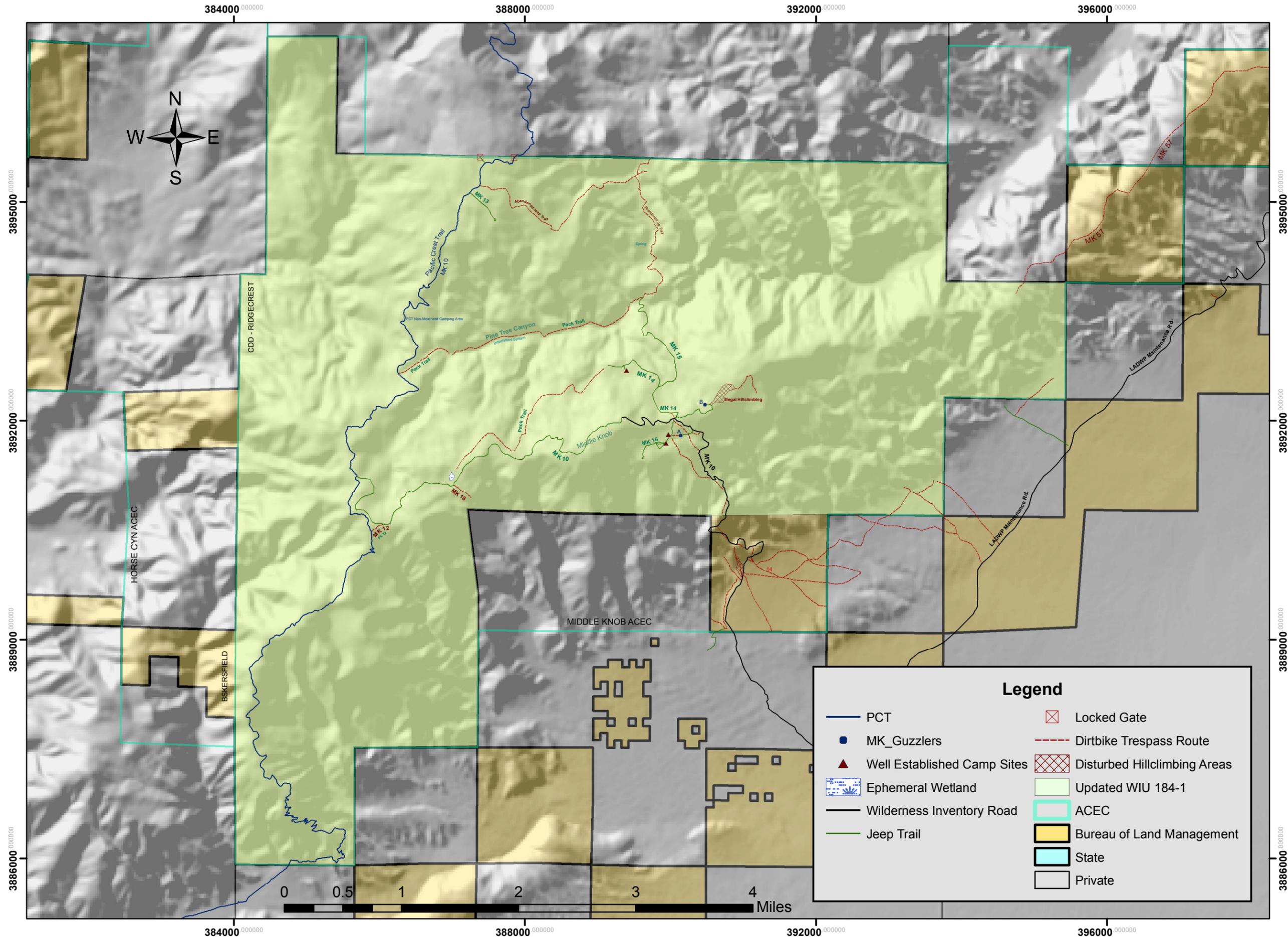
**Approved by:**

Carl B. Symons  
Carl B. Symons, Field Manager

6/27/2013  
Date

*This form documents information that constitutes an inventory finding on wilderness characteristics. It does not represent a formal land use allocation or a final agency decision subject to administrative remedies under either 43 CFR parts 4 or 1610.5-2.*

# WIU #184-1 MIDDLE KNOB MAP - June 2013



**Legend**

PCT	Locked Gate
MK_Guzzlers	Dirtbike Trespass Route
Well Established Camp Sites	Disturbed Hillclimbing Areas
Ephemeral Wetland	Updated WIU 184-1
Wilderness Inventory Road	ACEC
Jeep Trail	Bureau of Land Management
	State
	Private

Year 2013 Inventory Unit Number/Name WIU #CDCA 184-1, Middle Knob

**FORM 1**

**Documentation of BLM Wilderness Inventory Findings On Record**

**1. Is there existing BLM wilderness inventory information on all or part of this area? Yes**

**Inventory Source:** 1979 CDCA Wilderness Inventory Final Descriptive Narratives, BLM Ridgecrest FO

**Inventory Unit Name(s)/Number(s):** WIU #CDCA 184 (Middle Knob)

**Map Name(s)/Number(s):** USDI BLM CASO Wilderness Final Inventory, March 31, 1979

**BLM District(s)/Field Office(s):** Ridgecrest Field Office

**2. BLM Inventory Findings on Record**

Existing inventory information regarding wilderness characteristics:

Inventory Source: 1979 CDCA Wilderness Inventory Final Descriptive Narratives, BLM, Ridgecrest FO

<b>Unit#/Name</b>	<b>Size (acres)</b>	<b>Natural Condition? Y/N</b>	<b>Outstanding Solitude? Y/N</b>	<b>Outstanding Primitive &amp; Unconfined Recreation? Y/N</b>	<b>Supplemental Values? Y/N</b>
1979 Findings within WIU #CDCA 184	Y 12,798 acres out of a much larger unit.	Y	Y	Y	Y
2013 Findings within WIU #CDCA 184-1	Y 15,788 acres	Y	Y	Y	Y

Summarize any known primary reasons for prior findings in this table:

The original 1979 WIU #184 extended south from Jawbone Canyon to Highway 58. It was bounded on the west by the boundary of the California Desert Conservation Area and on the east by a series of maintained ranching roads and the Los Angeles Aqueduct Road. In short, the original WIU extended south from Jawbone Canyon to Cross Mountain, Antimony Flat, and Chuckwalla Mountain, across a large block of private property (in excess of 25,000 acres), and on down through what is now the Middle Knob ACEC to Highway 58.

Approximately 65-70 percent of the area was privately-owned, non-public land.

The area was found to contain a great variety of landforms and plant communities, with elevations ranging from 2500 feet at the desert floor to over 6500 feet on the crest of the South Sierra. The following plant communities were found to be represented: creosote bush scrub, canyon riparian, sagebrush scrub, bunch grasses, pinyon-juniper woodland, and a variety of other conifers, including White Fir.

Lower elevation desert portions of the roadless area were found to be substantially impacted by the works of man, including, but not limited to off-road vehicle use. Off-road vehicle use was found to have substantially affected the private/public checkerboard of lands on the northern half of Barren Ridge. The large block of contiguous private lands immediately to the west was found to contain many maintained roads, developed springs, and ranches.

Adjacent natural areas, however, were found to be well-screened from impacted areas “due to the great vegetational density and variety and topographic diversity.” With the impacted areas excluded, the remaining sections of contiguous public lands were all found to “retain their primeval character and influence” and to “form a manageable unit of adequate size in the southern end.”

Within the potential wilderness study area at the southern end, opportunities for solitude were found to be “outstanding in this rugged mountain environment.” “The extremely irregular terrain with rugged mountain peaks and deep canyons” were found to “provide outstanding opportunities for a diversity of primitive and unconfined types of recreation.”

In 2005, the West Mojave (WEMO) Plan Amendment to the CDCA Plan established a new Middle Knob Area of Critical Environmental Concern (ACEC) in the southern end of the original WIU unit. This ACEC was established to protect significant biological resources, including two special status plant species (Kern buckwheat and flax-like monardella), prime nesting habitat for raptors, including golden eagles and prairie falcons, significant springs and riparian habitat, and a major migration route for the Paiute deer herd along Barren Ridge.

## **FORM 2**

### **Documentation Of Current Wilderness Inventory Conditions**

Unit Number/Name **WIU #CDCA 184-1, Middle Knob**

#### **(1) Sufficient size**

**Yes**

**Acreeage:** 15,788 acres BLM land as calculated by a BLM CA State Office GIS Specialist in 2013.

**Boundary revision:** The unit would include most of the contiguous public land at the south end of the original WIU which comprises the current Middle Knob ACEC. Some additional land within the ACEC has been dropped from the new WIU unit because of unacceptably high off-road vehicle impacts. These areas include Section 14 (T32S, R35E) on the way up to Middle Knob saddle and the jeep trail to and primary area of disturbance defined by a large, illegal hillclimb immediately NE of the saddle. The recently maintained portion of MK10 has been identified as a wilderness inventory road and has been cherry-stemmed out of the area. See attached map.

#### **Description of Current Conditions**

**Land ownership:** BLM (15,788 acres); private inholdings (0 acres).

**Location:** Approximately 8 miles north and northwest of the town of Mojave. The northern boundary is the public/private land boundary, the eastern boundary is the California Desert Conservation Area (CDCA) boundary, the southern boundary follows the block of contiguous public land (essentially the ACEC boundary with the exception of private sections 16 & 15, and the aforementioned disturbed Section 14) and the western boundary, the ACEC boundary defining the western edge of the contiguous public land block.

**Topography:** Extremely variable. Narrow contact zones of calcite, marble, rhyolite, tuff, etc., are exposed in the steep, eroded side canyons of Barren Ridge. To the south, the steep, rocky cliff faces along a nearly vertical Eastern Sierra escarpment give way to rolling ridgelines transected by deeply carved canyons, with hidden springs and significant riparian zones. Several of the rock formations are quite stunning, reminiscent of the colorful hoodos, spires and mesa tops of the American Southwest. Pine Tree Canyon is the most predominant, centrally located feature in the area. It supports a healthy riparian area fed by an intermittent, perennial stream with several deep pools and waterfalls.

**Vegetation features:** The unit is a key ecological area which supports many unusual plant associations, combining species from coastal scrub, southern mountain chaparral, Sierran foothill woodlands, Great Basin pinyon forests, and Mohavean scrub, not found elsewhere. Unique habitats, including vernal pools and pavement/pebble plains, occur on the ridges. This area provides a unique clay/pebble plain habitat for one of California's rarest native species: Kern buckwheat (*Eriogonum kennedyi* var. *pinicola*).

**Major human uses/activities:** Backpacking and horseback riding along the Pacific Crest Trail. Camping, hiking and photography throughout the area. Seasonal deer and bear hunting in Waterfall and Pine Tree canyons; quail hunting along Barren Ridge. Limited jeep touring due to the poor condition of the vehicle routes. Most ORV use is confined to dirt bikes; and increasingly, more dirt bikes are traveling off of the designated, open vehicle route system.

## (2) Natural condition

**Yes.** The area is roadless, containing less than 12 miles of open (designated) vehicle trails, at least 5 miles of which is the Pacific Crest Trail. Off-route vehicle use by dirt bikes is on the rise, but this use is mostly confined to existing non-motorized stock and foot trails or in two instances, to long-abandoned and undesignated jeep trails. Severe terrain and heavy vegetation preclude vehicles from traveling very far off of the designated route system without some kind of trail. (See photos.) Barren Ridge may be the exception. Here the country is gentle and open enough to be more vulnerable to off-route use. Still, except for the multiple dirt bike trespasses in Section 14 and the large hill scar caused by illegal dirt bike use east of the saddle, both of which appear prominent enough to be carved out of the eligible area, the dirt bike problems are not all that pervasive. They are well-screened and mostly confined to existing trails through dense vegetation, along the tops of the ridgelines or down in the bottoms of the canyons.

While the overall perception and character of the area remains quite natural and pristine, dirt bike use has had negative impacts on naturalness in some areas where use is most concentrated due to the popularity of the trail or the physical constraints of the area. There are places along the Pacific Crest Trail (currently open to vehicles) where dirt bikes have cut corners, created deep ruts and erosion gullies, and laid down multiple tracks (*See photo 2963 from 3/15/2013.*). A heavily compacted and deeply worn in single track dirt bike trail does not have the same features or feel of a path through the forest, or even of an infrequently used two-track jeep trail (*See photos 2845-2886 of MK14 pack trail from 3/14/2013.*).

Similarly, upper Pine Tree Canyon is now being ridden illegally by dirt bikes on a regular enough basis to damage and in some places, deflect use around the old foot and equestrian use trails. While the old trails kept mostly to the sides of the drainage, the new dirt bike trails are coursing right through the bottom stream, wetland, and riparian areas (*See photos of upper Pine Tree Canyon from 3/28/2013.*). This could become problematic with respect to preserving naturalness and natural function, if dirt bike use of the canyon is allowed to continue instead of being stopped. At the moment, the pervasiveness and scale of the canyon features, the stunning

rock walls and riparian vegetation, are keeping pace with the dirt bikes and are retaining integrity, purpose and dominance. But they may not be able to continue to do so much longer. Fortunately, in an active drainage, this type of disturbance can be quickly reversed and repaired, once it is stopped.

The wind farms on the private property north of the Middle Knob ACEC pose less of a problem than more intensive dirt bike use. They are visible from MK10 and the PCT for some distance, but are well screened by vegetation at many points along the trail and are for the most part, dwarfed by the intervening ridgelines and canyons. The wind farms do become quite audible, however, within a ¼ - ½ mile of the public/private land boundary.

### **(3) Outstanding opportunities for solitude**

**Yes.** The area receives relatively little use outside of the Pacific Crest Trail. The BLM Bakersfield Field Office estimates that as many as 3,000 hikers and equestrians may use this stretch of the PCT each year. Estimates of vehicle use based on tracks and personal observations of use on trails and corridors during the inventory process range from as little as 50 vehicle users per year to up to 500 vehicle users per year. At no time during the inventory process, did we see more than three vehicles on any given day, and these were in widely scattered locations. In short, it is easy to find solitude in an area of this size with so few trails and even fewer trail users. In addition, the extreme topography and dense vegetative cover effectively screen visitors from one another. A visitor can be just around the next bend in the trail from another visitor and not be aware of it. This too increases opportunities for solitude, as does distance itself from any established trail.

The relatively low use levels may be due to the historically poor and dangerous condition of the principal vehicle access route into the area (MK10) and the equally poor and degraded condition of nearly all of the secondary jeep trails. Over the past 20 years, most vehicle use has been confined to dirt bikes and to a few hardcore 4x4 and quad users, most likely hunters using the established camps off of MK18 and 14 during bird and deer season. This may change now that MK10 has been reworked and is now more easily passable by 4x4 to the Middle Knob saddle and a short ways beyond.

### **(4) Outstanding opportunities for primitive and unconfined recreation**

**Yes.** There are many outstanding opportunities for primitive and unconfined recreation in the area. These opportunities are not limited to the **Pacific Crest Trail** itself (estimated to attract up 3,000 non-motorized users along this particular stretch each year), but extend to many other non-motorized user-created and constructed pack horse and foot trails in the area, and to at least two, abandoned jeep trails. These opportunities include:

**Pack Trail extension of MK14 from the well-established hunter's camp to the ephemeral wetland/vernal pool off of MK10.** This is an awesome short hike with spectacular views of upper Pine Tree Canyon. The trail passes through a large cultural site with bedrock mortar holes and significant lithic scatters. It provides a convenient short cut from the well-established

hunter's camp to MK10 and the Pacific Crest Trail and to destinations beyond. (*See photos 2816-2916 from March 14, 2013 inventory hike.*)

**MK12 Equestrian Vehicle Barrier Bypass Trail to the Pacific Crest Trail.** This trail has not yet been inventoried on foot (*See photos 2554 & 2556 from the February 24, 2013 inventory trip.*). However, aerial images show it to clearly connect to the Pacific Crest Trail. The current signed intersection of the Pacific Crest Trail with MK10 is about  $\frac{3}{4}$  mile further to the north. This intersection has an H-brace vehicle barrier and is surrounded by dense forest. (*See photo 2563 from the February 24, 2013 inventory trip.*) It is NOT set up for the passage of stock and equestrians cannot and do not use it. They must fall back on the MK12 trail for through passage.

**Upper Pine Tree Canyon Pack Trail climbing out of the bottom of the canyon at its western end to the PCT.** This trail provides an easy way in or out of upper Pine Tree Canyon off of the Pacific Crest Trail. The trail starts as a hiking/equestrian use trail in the bottom of the canyon but assumes a more formal, constructed dimension as it switchbacks up out of the canyon. (*See photos 3234-on to the pack trail's intersection with the PCT at 10:39 a.m. on 3/28/2013.*) The trail is an essential part of a long spectacular loop that can be hiked in one day from the MK14/MK15 intersection down to the bottom of upper Pine Tree Canyon, up Pine Tree Canyon to the PCT, north along the PCT, and back along the two abandoned jeep trails described below.

**Abandoned Jeep Trail off of the PCT/MK10.** This trail would not have been discovered by us if 3-5 dirt bikes had not recently taken it off of the Pacific Crest Trail (MK10). From its start off the PCT (*Photo 3302 on 3/28/2013*), it looks like a small break in the foliage which turns into a narrow, twisting path through the mountain mahogany. There are some cut limbs and quite a bit further downslope some large boulders pushed to the side, eventually some berming, and finally some cut/fill as it approaches the intersection with the abandoned extension of the MK15 jeep trail (*Photo 3425 at 13:54*). The trail is no longer suitable for full-sized vehicles or even for quads for most of its length. It is narrow, only 2-3' wide in many places, twisty, very rough and loose, steep, and eroding. It does, however, make a spectacular foot trail, and could with some work, make an excellent stock trail.

**Abandoned Jeep Trail Extension of MK15.** MK15 starts at the MK15/MK14 intersection less than a  $\frac{1}{2}$  mile from the Middle Knob saddle. As an open, designated vehicle route, MK 15 currently ends at the bottom of Pine Tree Canyon. The trail from the MK15/MK14 intersection to the bottom of the canyon, however, is so badly overgrown, rutted, and eroded, that it is no longer in regular use by vehicle users other than by dirt bikers (*See photos 2620-2686 on February 25, 2013.*)

The non-designated portion of MK15 beyond the bottom of Pine Tree Canyon continues north for approximately 1  $\frac{1}{2}$ -2 miles before it deadends at a locked gate at the public/private land boundary. It intersects the previously described abandoned jeep trail coming off of the PCT approximately  $\frac{1}{4}$  mile short of this boundary. Conditions along the undesignated extension of MK15 vary (*See photos 3425-3514 from 3/28/2013.*). The trail is full-size vehicle-width along some stretches, but dwindles to less than 4'-5' wide along other stretches. Gradients are less steep and surface texture generally less loose and rocky than some of the trails described previously. The worse section is right before the final drop into Pine Tree Canyon before it

connects to the end of the designated portion of MK15. This section is very loose and rocky and is severely, dangerously undercut in one location (*See photo 3511.*)

The trail passes by a spring and small riparian area with running water and some small, fantastic gargoyle-like rock formations (hoodoos). The trail works well for hikers as is, and would most likely work equally well for equestrians.

In general, the area is unique combining a wide variety of landforms and vegetation types. In this one area, visitors can experience Dakota-like badlands, deep forests, Southern California chaparral, wildflower fields, broad desert grasslands, dramatic and colorful cliffs and canyon lands, stark desert peaks, and cool, riparian areas with pools and waterfalls. Hiking and riding are popular, especially along the Pacific Crest Trail. Deer and bear hunting are popular in Waterfall and Pine Tree canyons; quail hunting is popular along Barren Ridge. Cross country travel by foot and on horse is possible along many ridge tops and canyon bottoms found in the area (*See photos from last Barren Ridge to lower Pine Tree Canyon hike from 5/14/2013.*).

However, the illegal appropriation and use of non-motorized trails by dirt bikes in recent years has negatively impacted both the number and quality of experiences available to non-motorized users of the area, and will continue to do so, until it is stopped.

#### **(5) Supplemental values**

**Yes.** (*See attached photos.*)

*Geological:* The area contains one of the few examples of pre-Sierran volcanic and riverine geological history. Two major mountain-building fault systems are here. Exposed Miocene lakebed sediments have yielded many significant vertebrate fossil sites. The multifaceted geology has formed a variety of clay soils which support unusual plant associations, unique stands, and rare species. In addition, it has created many spectacular, rugged and colorful landforms and dramatic viewsheds.

*Vegetation:* The eligible portion of the WIU encompasses most of the Middle Knob ACEC. The area was designated an ACEC in the 2005 WEMO Plan Amendment, because of its significant biological resources. It is a key ecological area which supports unusual plant associations not found elsewhere, as well as several rare plant species. This area provides a unique clay/pebble plain habitat for one of California's rarest species: Kern buckwheat (*Eriogonum kennedyi*) var. *pinicola*. The area also supports flax-like monardella (*Monardella linoides oblonga*).

Vegetation in the area transitions from Mojave Desert communities through Joshua tree woodlands to upper elevation pinyon pine/ juniper with gray pine and Jeffery pine. The most prevalent vegetation is composed of California juniper and various species of pine trees. Unusual associations occur throughout the area, combining species from coastal scrub, southern mountain chaparral, Sierran foothill woodlands, Great Basin pinyon forests, and Mojavean scrub. Biodiversity is high in the Middle Knob area. Unique habitats, including vernal pools and pavement/pebble plains, occur on the ridges. Barren Ridge Plateau is dominated by native bunch grasses, and is a major migration route for the Paiute deer herd. Pine Tree Canyon has an

intermittent, perennial stream that supports good riparian habitat with cottonwood/willow vegetation. Isolated springs with small riparian areas also exist. Desert almond is another rather unusual riparian species frequently found in the area.

*Wildlife:* Large mammals living in the area include: mule deer, bear, coyotes, mountain lion, and lagomorphs such as black-tailed jackrabbit and desert cottontail. The area provides prime nesting habitat for raptors, including golden eagles and prairie falcons. Desert tortoises live in the lower elevations of the ACEC, from about 3500 to 4500 feet elevation. Mohave ground squirrel habitat is also present in the lower elevations. Other special status animal species found in the Middle Knob area include the Le Conte's thrasher and the California horned lark.

*Cultural Resources:* The area is part of the heartland of the Kawaiisu native peoples. It abounds in Kawaiisu sacred sites and living sites. A major trade route used by 4 different tribes, connecting the Santa Barbara coast to the desert's Coso Hot Springs, courses along the western edge of the WIU-unit. Tomo kahni State Park has been established near the western boundary of the Middle Knob area to preserve village sites and sacred sites. The BLM's new Horse Canyon ACEC (administered by the Bakersfield Field Office) is located just on the other side of the Bakersfield/CDD Middle Knob ACEC boundary. The Horse Canyon ACEC was established to preserve cultural and paleontological resources in the area, including dozens of recorded archeological sites and a well-preserved pictograph cave.

Significant lithic scatters were found at 4 locations in the course of this wilderness inventory. These sites appear to be unrecorded and have not yet been evaluated by a BLM archeologist.