

Summary of Findings and Conclusion

Unit Name and Number: **WIU #CDCA 136, Surprise Canyon Cherry Stem**

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: 03-06-13

Approved by:

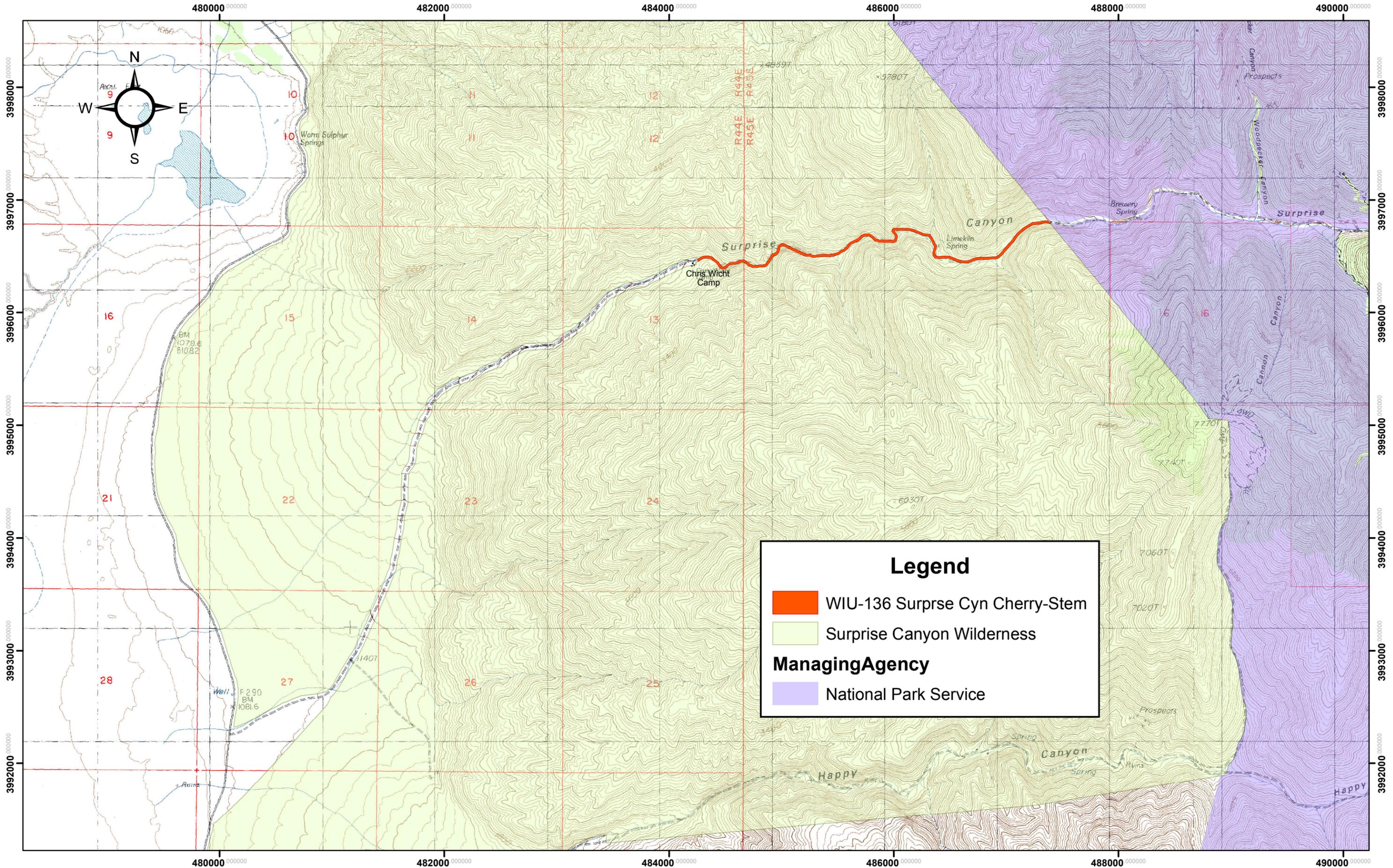


Field Manager

4/2/2013
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-136 Surprise Canyon Cherry-Stem



Year 2013 Inventory Unit Number/Name WIU #CDCA 136, Surprise Canyon Cherry-Stem

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 136 (Surprise Canyon)

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

Unit#/ Name	Size (acres)	Natural Condition? Y/N	Outstanding Solitude? Y/N	Outstanding Primitive & Unconfined Recreation? Y/N	Supplemental Values? Y/N
1979-1990 Findings within WIU #CDCA 136 with respect to the Surprise Canyon. Road	Y -17.3 acres Contiguous to Larger Eligible Area	N	Y	Y	Y
2012 Findings within WIU #CDCA 136 with respect to the Surprise Canyon Non-Wilderness Cherry Stem	Y -17.3 acres Contiguous to Existing Wilderness	Y	Y	Y	Y

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

The original WIU #136 excluded several roads and active mining areas found in Pleasant, Jackpot, Happy, Jail, and Surprise Canyon. The original unit was large, comprising 58,398 acres. It extended east of Indian Ranch road to the Death Valley National Monument (DVNM) boundary on the east side of the Panamint Range. And, it extended north from Pleasant Canyon to Wildrose Canyon Road and the DVNM boundary.

The 1979 analysis and decision concluded that all of the WIU excluding the roads and active mining areas identified above met wilderness criteria. The maintained roads and mining areas in the canyons and badlands were found to have little to no effect on the surrounding area's naturalness due to topographic screening. It was noted that the walls of the canyons tower several hundred feet above the canyon floors, rendering roads and mining scars "substantially unnoticeable." While these improved roads and mining areas were excluded from further wilderness study, their overall effect on adjacent areas was found to be "negligible." Outstanding opportunities for solitude were found to exist throughout the area. Topographic features allowed visitors to be out of sight and sound from one another within relatively short distances. Vegetational screening also contributed to opportunities for solitude, particularly in the canyon bottoms where riparian vegetation was robust, and at upper elevations within the pinyon-juniper zone. Opportunities for primitive and unconfined recreation were felt to be greatly enhanced by proximity to defacto wilderness in Death Valley National Monument. Supplemental values were also present. The rocky areas between 1200-4,000 feet support the Panamint Daisy, a rare and endangered species. The area was found to contain one of the last remaining refuges for Desert bighorn sheep. Two indigenous species were also found in the area: the Panamint alligator lizard and a subspecies, of speckled rattlesnake.

In 1984, a 100-year flashflood destroyed large sections of the graded, gravel road in Surprise Canyon. It left a series of perennial waterfalls, boulder cascades and impassible mud deposits and debris in its wake. Virtually all of the gravel in the narrowest part of the canyon, known today as the Falls, was flushed out, exposing bedrock and leaving two series of three to four waterfalls ranging in size from three to thirteen feet. The road ramp from Chris Wicht Camp down to the canyon bottom was also washed out at this time, as were portions of the elevated road bed above the Falls. Route designation occurred in 1985 after the flashflood destroyed the road. The vehicle route that was designated as P71 did not exist at the time, nor did BLM have plans to reconstruct the route. After the 1984 flood, no one drove up Surprise Canyon past Chris Wicht Camp for 5 years.

In 1989, some vehicle operators into the sport of "rock crawling" figured out how to modify their vehicles and make their way up Surprise Canyon. They pioneered bypass trails to go around places where the old roadbed had washed out. For example, vehicles entered the wash bottom approximately 0.3 miles below Chris Wicht Camp to bypass the damaged road ramp to the canyon bottom. They cut a sizeable linear path through the

riparian vegetation which had grown up since the flood. And, they pushed boulders off the canyon rim, stacked rock to create driving ramps, and figured out how to winch vehicles over the Falls exposed by the 1984 flood. This conflicted with BLM's Interim Management Policy for WSAs. However, the route, an improvised, "extreme" jeep trail, was left open. And from 1992- 2000, BLM issued permits to CAL 4WD to lead jeep tours to Panamint City as part of their annual Panamint Valley Days event. As many as 100-150 people per year, including Panamint Valley Day event participants, may have driven up Surprise Canyon during this period.

In 1990, the BLM recommended 0 acres for wilderness within the original 58,398 acres WIU in its Statewide Wilderness Study Report. While the area was found to meet the criteria for wilderness, it was felt that the area's wilderness values were only marginal and did not exceed the area's potential for other uses, principally mining exploration and development. It was also felt that it would be difficult to manage the area as wilderness with more than 25 miles of routes of travel, including primitive ways, washes, and other unmaintained routes, remaining open for vehicle use.

In 1994, the California Desert Protection Act greatly expanded Death Valley and made it a National Park. Upper elevations in the Panamints were transferred from BLM to NPS, including the upper half of Surprise Canyon. Pleasant Canyon and Jack Pot Canyon were dropped from wilderness consideration. The remaining BLM lands within the original WIU unit (a total of 24,433 acres), including Happy Canyon and most of Surprise Canyon, became the Surprise Canyon Wilderness. Two cherry-stemmed vehicle routes were excluded from wilderness. One follows the jeep trail from Indian Ranch Road to Jail Canyon (now in Death Valley National Park). The other follows the county-maintained road (with a 100' setback on either side of the centerline) from Indian Ranch Road to Chris Wicht Camp in Surprise Canyon. It continues past Chris Wicht Camp to the Death Valley National Park boundary with only a 30' setback, along the route of the extreme jeep trail in-use at the time of wilderness designation. On Death Valley National Park lands, the setback was expanded to 50' from the centerline of the original vehicle route to Panamint City.

In March of 2000, the Center for Biological Diversity, the Sierra Club and Public Employees for Environmental Responsibility filed suit against BLM for alleged violation of Section 7 of the Endangered Species Act for failure to consult with U.S. Fish and Wildlife Service regarding potential effects of the 1980 CDCA Plan on threatened and endangered species. To avoid litigation and a possible order from the Court to suspend or limit activities within the entire CDCA that could adversely affect listed species, BLM agreed to enter into a Settlement Agreement defined by a series of Stipulations.

Among the Stipulations agreed to by the parties, and issued as an Order by the Federal District Court, was an interim closure of the Surprise Canyon jeep trail to use by motor vehicles and the preparation of an Environmental Impact Statement (EIS) to evaluate a full range of alternatives for human access up the Surprise Canyon cherry stem beyond Chris Wicht Camp.

In 2004, the Northeast Mojave (NEMO) Plan Amendment to the CDCA Plan deferred making a decision on the Surprise Canyon jeep trail with respect to vehicle use, but found the canyon to be eligible as a Wild and Scenic River. The Surprise Canyon EIS was subsequently tasked with making a suitability determination with respect to Wild and Scenic River Status, as well as a route decision. Work on the EIS was suspended in 2006 to free staff time for higher priority projects.

Surprise Canyon has been closed to vehicles since 2001, pending completion of an EIS with a final route decision. Senator Feinstein is currently proposing new wilderness legislation for the California desert. In Feinstein's bill, Surprise Canyon would become a Wild and Scenic River, with a designation of Wild above Chris Wicht Camp. Such a designation would preclude vehicle use in the canyon.

Over the past 12 years, the canyon has completely reverted back to its natural state, assisted by two more major flood events. The stream has overtaken most of the canyon bottom. Cottonwoods, mesquites, willows, baccharis, equisetum, and cattails have all moved in. And except for two-three very short, disconnected stretches of original constructed road bed above the Falls, there is no longer any trace of a vehicle route left in the lower half of canyon.

FORM 2

Documentation Of Current Wilderness Inventory Conditions

Unit Number/Name **WIU #CDCA 136, Surprise Canyon Cherry Stem**

(1) Sufficient size

Yes

Acreage: 17.3 acres immediately contiguous to BLM and NPS existing wilderness. BLM land as calculated by a BLM CA State Office GIS Specialist in 2012.

Boundary revision: The unit would incorporate all non-wilderness cherry-stemmed lands in Surprise Canyon above Chris Wicht Camp, from the terminus of the county road to the BLM/NPS boundary.

Description of Current Conditions

Land ownership: BLM (17.3 acres); private inholdings (0 acres).

Location: in Surprise Canyon, from the terminus of the county road at Chris Wicht Camp to the BLM/NPS boundary, T 20S/R 44E/45E.

Topography: Narrow, winding, steeply climbing stream channel with tall, vertical canyon walls. Perennial seeps and springs and a stream with an abundant year-round flow of surface water.

Vegetation features: The stream supports a robust riparian special plant assemblage, including but not limited to: cottonwood, mesquite, willow, baccharis, goldenrod, wild grape, clematis, equisetum, cattails, sedges, rushes, stream orchids, and watercress.

Major human uses/activities: Hiking, backpacking, wildlife watching, and photography.

(2) Natural condition

Yes. The Surprise Canyon cherry-stem is a 60' wide non-wilderness strip of land located in the active stream channel at the bottom of Surprise Canyon. It is flanked by wilderness on both sides and it extends all the way up the canyon into Death Valley National Park. The cherry-stem is one of the most superlative natural areas managed by the BLM Ridgecrest Field Office. It encompasses nearly all of the Surprise Canyon perennial stream and most of the associated

riparian area. It takes up more than 75% of the canyon bottom in the lower half of the canyon. And, in some places, notably the Falls, it takes up 100% of the canyon bottom. In its present roadless condition, it is completely indistinguishable and inseparable from adjacent wilderness lands. The Surprise Canyon stream and riparian area are the principal critical components of a dynamic natural system that controls the entire canyon bottom whether it is inside or outside of designated wilderness.

Imprints of man. There are very few imprints of man to be found anywhere in the canyon bottom between Chris Wicht Camp and the Death Valley National Park boundary. There is no mining activity in the canyon and no mining use of the cherry stem. There has been no actual mining in Surprise Canyon since the early 1980's. While the Surprise Canyon road was sporadically maintained by miners up until the 1970's, miners did not petition or attempt to fix the road after the flashflood destroyed it in 1984. Some vestiges of past mining activity and actual original road construction remain, but these are small and discrete occurrences that are widely distributed throughout the canyon. They include: an old millsite immediately above Chris Wicht Camp, part of an old mucker located a half mile or so upstream, some crumbling rock ruins, a half buried truck, a small adit, and some elevated fragments of original constructed road above the Falls. The two-three road fragments are very short (300'-500') and are isolated from one another by flowing water and dense riparian vegetation. All of these features are well-screened by vegetation and topography. All of them will slide almost immediately out of sight behind the next stand of vegetation or bend in the canyon. All are insignificant within the larger physical context of the canyon. They are dwarfed by the scale and mass of the canyon walls and mountains surrounding them.

There are no visible traces of vehicle use or of the improvised jeep trail in use at the time of wilderness designation. Vehicles have not been in the canyon above Chris Wicht Camp since the vehicle closure went into effect in 2001. There have been many flood events over the past 12 years; most notably, immediately after the closure in 2001, and in 2003. The floods moved enormous quantities of sediment, rock, boulders, and woody debris – scooping them up in one place and depositing them in another. The waters cut deepest and most dramatically where they were least obstructed and/or most confined and could pick up speed. Over time, these flood events dramatically altered and rearranged the stream channel. As the jeep trail and cherry stem were largely synonymous with the stream channel and the jeep trail provided the path of least resistance, these flood events essentially obliterated the jeep trail.

Today, the gravel fill and rocks compiled at the base of the Falls are gone. The Falls have re-emerged taller and steeper. Two new additional falls have been established, as well as some significant rock riffles. Above the Falls, where the jeep trail once captured the stream, the jeep trail has become the new streambed. As such, it has become completely transfigured by the stream, broadly dispersing across the alluvium in some places, developing meanders, and becoming narrow and deeply channelized in others.

A user-created foot trail is now the only established route of travel in the canyon.

Stream restoration and expansion of the riparian area. In 2000, the Surprise Canyon stream and riparian area did not meet proper functioning condition due to the effects of vehicles on stream erosion processes. BLM staff observed that “water channeled straight down slope” and that vegetation was exceptionally sparse on point bars and along channel sides. They reported that continued use of the jeep trail by vehicles was eliminating reproduction of shrubs and trees that tend to decrease impacts of high flow events (Harris, Parker & Aardahl 2000). Of particular concern was the loss of channel sinuosity, especially where vehicle tires had channeled water into deep ruts. The streambed created by the tracks was below the level of the adjacent riparian vegetation. It was accelerating the stream flow, increasing erosion, dewatering large areas of the adjacent wetlands, and weakening the ability of the ecosystem to withstand and absorb large flood events. A contract biologist noted that the area had potential to support denser and more extensive stretches of vegetation, “yet the continuous annual erosion caused by vehicle tires,” as opposed to the erosion caused by periodic 10-20 year cyclic flood events, “on the stream bed and margins will not allow re-colonization of the bare substrate” (Cunningham 2001).

The riparian area has expanded dramatically since the vehicle closure went into effect; changing not only in size and extent, but also in composition. The stream is now a wild and flowing stream that is no longer impacted by vehicle use or other manmade diversions. It has regained channel sinuosity; slowing flows, minimizing downcutting, and dispersing more water throughout the canyon bottom. This has preserved and expanded wetlands. It has created new and more favorable conditions for riparian recruitment, expansion, and maintenance. The riparian area is now robust and diversifying. There is a new cottonwood forest below Chris Wicht Camp where vehicles once left the county maintained road to travel directly up the wash to bypass a damaged road ramp. This development was already well underway but was boosted in 2006 by the removal of a small, upstream water diversion associated with Chris Wicht Camp. This occurred when the camp burned down and the residents left. The expansion of the riparian area here and elsewhere was also assisted by the removal of tamarisk. Tamarisk is an invasive, non-native species that monopolizes water, salts soils, and outcompetes most native vegetation. It thrives in moist, perpetually disturbed soils and requires clearings with adequate sunlight, such as that provided by active jeep trails, to become well established. From 2007-2010, BLM staff and volunteers made a concerted and ultimately successful effort to eradicate tamarisk throughout Surprise Canyon. Today, the Surprise Canyon stream extends for nearly a mile below Chris Wicht Camp during most of the year, populated not only by cottonwood, but by willow and mesquite, as well as many other native shrub species.

Above Chris Wicht Camp, the riparian vegetation has completely filled-in; cottonwoods and willows now span the entire canyon bottom from wall to wall. Changes in the stream have not only encouraged plant growth, but have provided a broad spectrum of micro-habitats, resulting in greater species diversity. Aquatic species, such as mosses and watercress, are now found in more locations where there is slower moving water. There are now herbaceous bank-stabilizing species, such as sedges and rushes, and most impressively, large aggregations of cattail and equisetum where there were none before. Even in the narrows where the Falls occur and much of the area has been scoured down to bedrock, there are tiny explosions of riparian growth on small islands of sediment and along the margins of the canyon walls. This area would now be classified as riparian despite its bedrock floor. Vegetation above the Falls is too thick to penetrate easily, even on foot, with the result that most visitors end up walking in the stream.

Wild grapevines cover isolated fragments of elevated roadbed in warm summer months. Saltbush, baccharis, and brittlebrush colonize others.

Riparian vegetation is the most important factor influencing soil and stream channel stability (DeBano and Schmidt 1989). Streamside plants maintain the integrity of stream channels and the associated riparian areas. Catastrophic flood events, like that in 1984, can occur in watersheds where there is not enough vegetation to protect and stabilize stream banks. Vegetation limits soil erosion in several ways: foliage and leaf litter intercept rainfall and dissipate energy; root systems physically restrain soil particles; leaf litter and branches increase surface roughness and slow velocity of runoff; leaf litter and roots increase infiltration by contributing to soil porosity and permeability; and plant roots take up soil moisture through transpiration, a “sponge effect” that allows the ground to absorb more water (Manci 1989; NRC 2000). Willows and sedges trap sediment transported by the stream (Elmore & Beschata 1987; Jackson et al. 1987). Riparian vegetation thereby reduces erosion, filters sediment, captures bedload, and aids in floodplain development. Establishment of willows, cottonwoods, and herbaceous bank-stabilizing species, such as sedges and rushes, contribute to a stabilized riparian system, where vegetative resistance counteracts erosive forces. A naturally flowing stream tends to seek equilibrium between erosion and deposition (Pritchard et al. 1998). Short-term flooding causes an oscillation in the balance between erosion and deposition (DeBano and Schmidt 1989). After a flood, the new stream channel re-adjusts its sinuosity and gradient in response to the stream flow.

Periodic, high intensity rains cause flashfloods in the canyons in the Panamints. These flood events will alter the stream channel and vegetation along the canyon bottom. Floods will deposit new sediments in some areas and remove sediment in others. Stands of large trees will withstand such flood events as evidenced by their age. Areas with robust riparian vegetation will be less affected than areas with sparse vegetation.

The Surprise Canyon stream and riparian area are now in proper functioning condition. Some residual downcutting (erosion) and channelization of flow can still be seen in a few places where vehicles traveled along the 1994 jeep trail. But these places are rapidly disappearing, becoming indistinguishable from the stream and/or are slowly filling in and reversing themselves as the stream changes course and meanders. The riparian area is now robust and extensive enough to withstand most flood events. This has stabilized conditions in the canyon and made it less subject to catastrophic washouts, as evidenced over the past several years where such events have had minimal impact on the canyon. In short, the canyon is in natural balance.

(3) Outstanding opportunities for solitude

Yes. Outstanding opportunities for solitude exist within the cherry stem and canyon bottom. On weekends, during the heavy use season, one can expect to pass at least one, possibly two or three other solitary individuals or groups of people. However, topographic features, intervening ridgelines, rocky outcrops, and sharp bends in the canyon allow visitors on foot to be out of sight and sound of one another almost immediately and within relatively short distances. Heavy vegetational screening also helps. The cherry stem is synonymous with the stream and riparian area for most of its length. Here willows will coalesce in dense stands, providing extensive

cover. Opportunities for solitude increase with distance from the Falls, the most popular hiking destination in the canyon. Opportunities also increase on week days and through the hot summer months, when very few people venture into the area.

The Surprise Canyon cherry stem provides an exceptional opportunity for solitude in the following regard: There is an abundance of natural ambient sound in the canyon, of moving water, of leaves rustling in the wind, of birds calling, treefrogs croaking, and crickets chirping. On any given day in Surprise Canyon, a visitor can expect to be immersed in natural quiet for the better part of the day, without any type of mechanical or motorized interruption whatsoever.

(4) Outstanding opportunities for primitive and unconfined recreation

Yes. At the present time, the Surprise Canyon cherry stem provides a variety of exceptional non-motorized, outdoor recreation experiences. People visit Surprise Canyon primarily to hike, photograph, watch birds, study plants, visit the Falls and Panamint City, and to backpack into wilderness. Beyond the initial vehicle barrier at Chris Wicht Camp, there are no on-site controls. There is nothing in the canyon bottom that identifies or distinguishes the non-wilderness cherry stem from the adjacent wilderness area. In effect, the entire canyon bottom is managed as trail-less and facility-free. It functions seamlessly as a whole, i.e., as an extremely popular, primitive, roadless area. People come here to experience wilderness and to carry that experience into upper elevations in the Park.

The Surprise Canyon stream and riparian area is a unique recreational resource, providing water, shade, and exceptional opportunities to watch wildlife and to study unusual plant assemblages associated with riparian environments. Surprise is one of only seven canyons in the Panamints with perennial springs capable of supporting riparian vegetation. It has the greatest stream flow and the most extensive surface water and riparian area of any of them. Surprise is the most accessible canyon by foot of the five such canyons now partially or fully protected by BLM and Park wilderness. The Surprise Canyon stream provides an ample supply of high quality water year-round for hikers and backpackers. This is an extremely valuable and rare commodity in the desert where most backcountry exploration is limited by how much water one can carry. The canyon offers several short but worthwhile hikes to good destination points. Most day hikers stop at the Falls, a spectacular watered staircase, about ½ mile upstream from Chris Wicht Camp. They can continue on to Limekiln with its dripping walls and fern grotto, or they can cross the Park boundary to stop at Brewery. These hikes provide spectacular destination points for visitors seeking a more abbreviated wilderness-type experience than that afforded by the full 6.5 mile trek to Panamint City. Overnight backpackers will hike all the way up to Panamint City, staying several days to explore higher elevations in the Park.

Surprise Canyon is an ideal location for birdwatching. Numerous bird species reside or migrate through the area. Over 100 species of birds have been recorded here, including such showy species as yellow warblers, lazuli buntings, and western tanagers.

Three highly sensitive and unusual plant assemblages occur in Surprise Canyon. Giant stream orchids, rushes, sedges, cattails and watercress are found in association with the many seeps and springs. Willow-cottonwood forests cover extensive areas of the wet bottomlands. Rare

endemics such as Panamint Dudley, Colville's lace fern, and Mohave spikemoss can be found in association with limestone and dolomite outcrops. Another very showy rare plant found in the canyon is the Panamint daisy.

In addition, the canyon provides an unusual opportunity to see and photograph bighorn sheep at one of their most consistent and important watering sites.

People generally do not choose to hike up canyons featuring prominent vehicle routes. Hikers are not found in great numbers in any of the roaded Panamint Canyons, including Pleasant and Goler, which are also well-watered. This is not surprising given that most hikers prefer trails or no trails to roads, and natural settings to more obviously disturbed ones. The number of hikers in Surprise Canyon increased substantially after the 1984 flood. It is estimated that as many as 300 hikers per year hiked up Surprise Canyon, more than double the number of vehicle users who rock-crawled up the canyon during the same time period. After the 2001 vehicle closure, the number of hikers continued to climb, averaging more than 600 hikers per year based upon 2005-2008 trail register data. Initially people came to see the newly exposed Falls and to experience the canyon in its newly-minted, more natural post-flood condition. The experience of these hikers has only improved with time as the jeep trail has given way to an informal foot trail and the canyon has made a full recovery.

(5) Supplemental values

Yes. Surprise Canyon is one of only seven canyons in the Panamints with perennial springs and surface water capable of supporting substantial amounts of riparian vegetation. It encompasses the largest surface flow of water and supports the most extensive riparian area of any of the other canyons. As a consequence, it has exceptional biological resources.

Wildlife: Surprise Canyon is a strip of riparian habitat surrounded by thousands of acres of arid landscapes. The perennial stream flowing through this steep, arid canyon creates microclimates very different from those in the surrounding desert. The continuum from flowing water to saturated soil and then to drier soil is the basis for the diversity of vegetation in riparian areas. Surprise Canyon's riparian area supports numerous species of invertebrates that are food for the birds, reptiles, amphibians, and bats. Several special status species occur in Surprise Canyon such as Hoffmann's Buckwheat, various bat species, bighorn sheep, golden eagle, Panamint alligator lizard, and the Oasis Valley Springsnail.

Surprise Canyon stream is an important watering place for Nelson's Desert Bighorn Sheep, a BLM sensitive species. Other large mammals living in Surprise Canyon are: the ringtail, a California Department of Fish and Game fully protected species; mountain lions; bobcats, coyotes, and gray fox. Townsend's big-eared bat and the pallid bat are BLM special status species occurring here.

Birders have recorded over a hundred bird species in Surprise Canyon. The riparian zone in the canyon is a migratory stop-over since it offers a permanent water source, feeding areas, and vegetative cover in the midst of an arid environment. The Inyo California towhee and Least Bell's vireo are federally threatened bird species that have been documented in Surprise Canyon.

Raptors include the golden eagle, red-tailed hawk, sharp-shinned hawk, Cooper's hawk, prairie falcon, and American kestrel.

Reptiles occurring in Surprise Canyon are the Panamint alligator lizard, a BLM special status species, western red-tailed skink, side blotched lizard, desert spiny lizard, Great Basin fence lizard, western whiptail, Panamint rattlesnake, and coachwhip.

Amphibians found here are the red-spotted toad and the Pacific chorus frog.

Plants: Three "highly sensitive unusual plant assemblages", as defined in the California Desert Conservation Area Plan occur in Surprise Canyon:

- 1) Vegetation associated with Seeps and Springs,
- 2) Vegetation associated with Riparian Zones and River Bottomlands, and
- 3) Vegetation associated with Limestone and Dolomite Outcroppings

Species such as stream orchid rushes and sedges watercress and narrow-leaved cattail occur at the seeps and springs. The wall at Limekiln Spring is covered with maiden-hair fern. Desert baccharis, Fremont's cottonwood, several willow species, and Mesquite grow in the riparian zone. Panamint Dudleya is an endemic species that grows in limestone outcrops.