southern
utah
wilderness
alliance

April 1, 2005

Gale Norton
Secretary of the Interior
U.S. Department of the Interior
1849 C Street, N.W.
Washington DC 20240

Sent by Federal Express

Sally Wisely
State Director, Utah State Office
Bureau of Land Management
324 South State Street, Suite 301
PO Box 4155
Salt Lake City, UT 84145-0155

Sent by Federal Express

Cornell Christensen
Manager, Richfield Field Office
Bureau of Land Management
150 East 900 North
Richfield, Utah 84701

Sent by Federal Express

RE: Request for Immediate Consideration and Action on the Factory Butte Area Emergency Protection Order – Petition to Initiate Immediate Emergency Closure of the Factory Butte Area to Off-Road Vehicles Due to Considerable Adverse Effects

Dear Secretary Norton, State Director Wisely, and FO Manager Christensen:

Enclosed please find the "Factory Butte Area Emergency Protection Order," a Petition submitted to you on this day by the Southern Utah Wilderness Alliance ("SUWA") and the Friends of Factory Butte that requests your immediate consideration and action. As the administrative record reflects, SUWA, Friends of Factory Butte and their respective

Moab Office
P.O. Box 968
76 South Main, #9
Moab, Utah 84532
Phone: 435-259-5440
Fax: 435-259-9151
Email: suwa@suwa.org

members have a long-standing interest in off-road vehicle ("ORV") management on public lands, and the Bureau of Land Management ("BLM") is well aware of our deep concerns regarding the lands managed by the Richfield Field Office ("Richfield FO") in south-central Utah. In particular, we have had numerous conversations, meetings, and exchanged correspondence with the Richfield FO regarding the issue of ORV use and lack of effective management in the Factory Butte area – a fragile, mancos-shale landscape revered for its incomparable scenery by hundreds of thousands of visitors from around the world (see Petition at pages 5-6 and Attachment A for a description of the Factory Butte Area).

As highlighted in the Petition's Executive Summary (see Petition pages 1-5), this beautiful landscape is also the target of a comparably small group of ORV users that have crushed endangered cactus plants, damaged the soil, accelerated erosion that releases salt and toxic selenium, created dust storms, and destroyed the scenery with their tracks that mar and pervade the landscape. While this recreational use may be fun for a few, it degrades the resource and conflicts with all other users. The Friends of Factory Butte and SUWA are deeply concerned with the severe damage caused by ORVs in the Factory Butte area – damage that the BLM has known of for a quarter of a century.

Request for immediate action. SUWA and the Friends of Factory Butte submit this Petition requesting that the BLM immediately close the Factory Butte Area to unregulated, intensive and resource damaging ORV use, to limit such use to the manageable open area and to certain designated roads described in the Petition (see Petition, map at Attachment A), and to take other actions as set forth in the Petition.

SUWA requests prompt consideration of its Petition for Emergency Closure and notification of such action within 120 days of this letter. ORV use throughout the Factory Butte area is causing irreparable damage to scenic, soil, and other natural resources, and is conflicting with other public land users. Accordingly, pursuant to 43 C.F.R. §§ 8341.2, 8342, and 8346.1, and Executive Orders 11989 and 11644, BLM must take immediate action to protect the resources of the Factory Butte Area from further damage.

Sincerely,

W. Herbert McHarg, Attorney
Southern Utah Wilderness Alliance

FACTORY BUTTE AREA EMERGENCY PROTECTION ORDER

PETITION TO INITIATE IMMEDIATE EMERGENCY CLOSURE OF THE FACTORY BUTTE AREA TO OFF-ROAD VEHICLES DUE TO PRESENCE OF CONSIDERABLE ADVERSE EFFECTS

Submitted by

Southern Utah Wilderness Alliance
&
Friends of Factory Butte

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FACTORY BUTTE AREA EMERGENCY PROTECTION ORDER

PETITION TO INITIATE IMMEDIATE EMERGENCY CLOSURE OF THE FACTORY BUTTE AREA TO OFF-ROAD VEHICLES DUE TO PRESENCE OF CONSIDERABLE ADVERSE EFFECTS
43 C.F.R. §§8341.2, 8342, and 8346.1, Executive Order 11989

EXECUTIVE SUMMARY

The mancos-shale badlands that surround the nationally recognized Factory Butte formation located in Wayne County, Utah form one of the most extensive and spectacular badland sequences in the world. Historically, this landscape has been revered for its incomparable scenery, drawing admiring visitors from around the globe, while professional photographers covet how the prominent Factory Butte, skirted by the knife-edged mancos-shale ridges, captures light – a scene that has been featured in countless books, magazines, brochures, videos, and other media venues over the years.

This beautiful landscape is also the target of a comparably small group of off-road vehicle (ORV) users, that have crushed endangered cactus plants, damaged the soil, accelerated erosion that releases salt and toxic selenium, created dust storms, and destroyed the scenery with their tracks that mar and pervade the landscape. While this recreational use may be fun for a few, it degrades the resource and conflicts with all other users. The Southern Utah Wilderness Alliance, Friends of Factory Butte, and others (hereinafter referred to as "SUWA") are deeply concerned with the severe damage caused by ORVs:

* A report prepared for the BLM by Dr. John C. Dohrenwend, adjunct professor in the department of geosciences at the University of Arizona, concludes that ORVs are accelerating erosion by four times the natural rate in the Caineville badlands, and that the amount of soil loss caused by ORVs is approximately one million pounds (500 tons) per acre of hillslope, producing about 5 to 15 tons of salt per hillslope acre. See discussion below at II; Attachment B.

* A United States Geological Survey scientist reviewed the report, and found Dr. Dohrenwend's scientific assessments of ORV impacts in the Factory Butte Area to be "methodologically sound and his conclusions well-supported," and that Dr. Dohrenwend's "assessment is more likely to have *understated* rather than overstated the degree to which OHV activities have led to accelerated erosion on disturbed hillslopes relative to undisturbed hillslopes . . . the estimated rate of accelerated erosion could be far more than 3-4 times the natural erosion rate in the Caineville badlands." See discussion below at II; Attachment C; see also Dr. Wilshire Declaration, Attachment D.

* The mancos-shale soils derived from the marine formations in the Factory Butte Area contain elevated amounts of selenium – an element that can cause health problems for humans, livestock, and other animals when ingested in higher-than-required concentrations. See discussion below at III; Dr. Wilshire Declaration, Attachment D.

* Limiting ORV use in the Factory Butte Area as described in this Petition is a cost-effective way for the BLM to help ensure area waters are beneficial to local and downstream users for irrigation and stock-watering. See discussion below at IV.

* ORV use in the Factory Butte Area conflicts with other resource values, public lands users, photographers, and tourists traveling designated Utah Scenic Byway 24, and harms the livelihood of local business and property owners:

> -According to the BLM, "[t]he lands managed by BLM as VRM II, especially in the foreground viewshed of the State Scenic Highway, are being adversely impacted by the OHV use. The casual observer can discern changes to the natural character of the landscape, especially since these are steeper slopes. . . . This is significant in that the majority of users are photographers, not OHV users." BLM Memo to File dated 10-1-04, Attachment J.
>
> -Over 600,000 people visited Capitol Reef National Park last year, and many of them traveled the boundary of the Factory Butte Area witnessing the unsightly ORV tracks that envelope the area. In years past, travelers would talk to Park employees about the "astonishing landscape around Factory Butte." Declaration of Stephen Trimble, Attachment G. Sadly, travelers now comment on how devastated the landscape appears, and ask why anyone would allow such damage to occur. Declaration of Randy Ramsley, Attachment F; Comment letters to BLM obtained via FOIA ("Comment to BLM"), Attachment I.
>
> -A farmer in Caineville has stood by while extreme ORV riders tore-up public lands surrounding his home and business, the riders telling him that they were bored of the lands they already destroyed and that it is their right to ride anywhere they want. They have even ripped-up hillslopes on his property. And after they leave, he watches the salt-laden fugitive dust blow in from their tracks and settle on his crops. Declaration of Randy Ramsley, Attachment F, exhibit B.

-A professional photographer that once found that the "sculptural lines of the Butte rising above the scalloped hills of gray badlands create a classic composition . . . a perfect canvas," has now "searched in vain for a foreground undamaged by ATV tracks." Declaration of Stephen Trimble, Attachment G.

-Another professional photographer writes "[d]ue to natural forces of erosion, these badlands have been sculpted into one of the most surreal and photographically unique landscapes in the West.. . . it is now virtually impossible to find an area to photograph which has not been torn up by ORVs.. . . the area surrounding Factory Butte looked as though someone had taken an armful of spaghetti noodles and thrown them across the land.. . . I reluctantly removed the area surrounding Factory Butte from my list of photographic destinations in Utah." Declaration of James Kay, Attachment H.

-A local resident pleads to the BLM: "To me, [the Factory Butte Area] is the most beautiful place in the world. In the past 5 years I have seen this once pristine area changing at an alarming rate. . . . On a weekend like Easter, a group of 10 or 20 [motor]bikes will scar hundreds of miles of soil in a spider's web of tracks across the factory bench and wild horse mesa. . . . The silence and sense of timelessness is shattered consistently with the deafening bleat of many 2 stroke engines at once." Comment to BLM, Attachment I (Wendy Ohlwiler 4-1-02).

-Another resident complains "I have been ashamed of the wanton destruction of the Bentonite hills along Highway 24. The uniqueness of this area has been diminished by the wheeled tracks marking these hills. . . . I can't begin to count the number of visitors who have commented on how beautiful they thought our area was, and then followed up by stating how ugly the man-made tracks were." Comment to BLM, Attachment I (Jerome West 5-9-03).

-A local business owner writes to the BLM, "The hills along Highway 24 are raked with tracks that will take years to heal, if ever. Visually, it is a mess, to say nothing of the air quality problems, erosion and damage to plant life. . . I depend on the tourism that comes from all directions. Having those tourists drive through what looks like a sacrificial zone will not encourage their return." Comment to BLM, Attachment I (dated 4-18-03).

***** According to the BLM's Preliminary Alternatives Analysis recently released to public for the Richfield Resource Management Plan (RMP) revision, the agency's preferred alternative would leave open approximately 6,000 acres in the Factory Butte Area, along with numerous resource damaging and unmanageable routes far exceeding those roads proposed for designation in the map attached to this Petition. An open area of this magnitude violates the regulations by exaggerating the damage to resources and conflicts with other public land users, and cannot be managed practically. Further, it would result in the release of 75,000 tons of fugitive soil per year, into the air and water

sources, that contains relatively high amounts of salt, and selenium and other heavy metals and elements that are potentially toxic to plants, animals and humans.

*** *For nearly a quarter century,*** the BLM has known the Factory Butte Area to be extremely sensitive, that ORV use within the area is causing resource degradation, and that the area should be closed to ORVs:

> The Caineville area currently receives intensive ORV use . . . and unsightly scars along highway U-24 are increasing. Use has reached the point where "undue and unnecessary degradation" (prohibited by FLPMA) may now be occurring. Complaints from Caineville residents have been received and critical newspaper articles have been published. This area must now either be closed . . . or managed to control use.

See 1982 Hanksville MFP, R-3.1, Attachment K.

***** In recommending closure of the area, BLM resource specialists stated in part that "ORV use in this area conflicts with the recognized geologic, historic, scientific, scenic, and recreational values of the Blue Hills . . . [p]ortions of the area are highly susceptible to natural erosion which would be increased by ORV activity." MFP at R-3.5, Attachment K. The specialists stressed leaving the area open to ORVs would damage other resources, "especially if [ORV] use were to become more intensive in the future." Id.

***** A recent BLM monitoring report regarding the Factory Butte Area noted "the steeper slopes have distinct and deep vertical scaring which are permanent. . . . tracks in many cases are not temporary. Tracks can be overridden by other, newer tracks, as well, but this does not mean that they disappear. . . . in many instances individual tracks can be located years after being laid down by individual riders on a one-time event." See Memo to File dated 10-1-04, Attachment J.

Thus, for decades, the Bureau of Land Management (BLM) has been aware that ORV use degrades resources in the area and conflicts with other public land users, yet the agency has not acted to prevent further harm to the region. This Petition for Immediate Emergency Closure asks the BLM to take the following actions:

> 1. Immediately close the Factory Butte Area to unregulated, intensive ORV use, by limiting such use to an area surrounding the present "Swing Arm City" approximately 1,000 acres in size ("open area"), and allowing motorized travel through the Factory Butte Area on certain designated routes. See map, Attachment A;

2. Sign, fence and otherwise ensure that ORV use is contained within the open area, and monitor the impacts of such use (if monitoring reveals that ORVs are traveling outside of the open area, or that conflicts with resources, other public land users, and area residents/business owners are still occurring, the boundaries of the open area may need to be reduced, or the entire area may need to be closed);

3. Permanently limit travel in the Factory Butte Area consistent with the attached map as part of the Richfield Resource Management Plan decision.

It is important to note that these requests should not come as a surprise to the BLM or the ORV users. Nearly 25 years ago, the BLM proposed limiting ORV use in the Factory Butte Area to a 640 acre area – an area today referred to as "Swing Arm City."[1] See BLM MFP maps at R-3.1; ACEC/R-1.1, Attachment K. This Emergency Protection Order would merely implement certain aspects of that wise proposal, and would actually expand the size of the ORV play area to follow rational management boundaries, rather than section lines. In all, the Factory Butte Emergency Protection Order represents a balanced approach to managing the Area; it would help reduce harmful impacts by allowing ORV use in a large open area and on designated roads, while protecting the remaining lands for their spectacular scenic beauty.

THE FACTORY BUTTE AREA

The lands of concern in this document are referred to herein as the "Factory Butte Area," and generally include the public lands managed by the BLM within Wayne County located north of highway 12, west of Hanksville, east of Capitol Reef National

[1] Located at T28S R9E section 14. In more recent years, the BLM has asked ORV users to voluntarily limit cross-country travel to this square mile.

Park, and south of the Emery County line. These lands are further described by the following general legal coordinates:

Township 27 South, Range 7 East, SLM
Township 27 South, Range 8 East, SLM
Township 27 South, Range 9 East, SLM
Township 27 South, Range 10 East, SLM
Township 27 South, Range 11 East, SLM
Township 28 South, Range 7 East, SLM
Township 28 South, Range 8 East, SLM
Township 28 South, Range 9 East, SLM
Township 28 South, Range 10 East, SLM
Township 28 South, Range 11 East, SLM
Township 29 South Range 8 East, SLM

(See map, Attachment A). Although this area is dominated by the fragile mancos badlands, riparian zones along the Muddy Creek and Salt Wash fall within the area's boundaries, while the Freemont River and other tributaries to the Colorado River are within the affected watershed.

INTRODUCTION

Factory Butte is a nationally recognized scenic icon that dominates the mancos shale badlands located within Wayne County, Utah and managed by the Bureau of Land Management's Richfield Field Office, Henry Mountain Field Station. These unique badlands, including North and South Caineville Mesas, form one of the most extensive and spectacular badland sequences on the Colorado Plateau. See S.L. Welsh, J.K. Rigby, W.K. Hamblin, A Survey of Natural Landmark Areas of the North Portion of the Colorado Plateau, prepared for the U.S.D.O.I, Attachment L. BLM has noted that "[v]isitors are often awed by the stark Mancos Shale moonscape and multicolored bentonite hills." Id. This fascinating, paradoxical landscape is full of surprises; while

this arid landscape is located hundreds of miles from the nearest sea, sharks' teeth and other marine fossils can be found on Factory Bench.

To the dismay of many, this fragile, unique landscape is increasingly marred by the uncontrolled use of off-road vehicles like ATVs and high-performance dirt motorcycles which have eroded the soil and left countless rutted tracks that are a continual presence everywhere in the area, even at the previously scenic east approach to Capitol Reef National Park. Farmers in the area are concerned about the salt and selenium laden fugitive soil generated by the ORV disturbance finding its way into irrigation water, damaging crops and soil.

Though the Factory Butte Area was not included in the designation of Capitol Reef National Park, the magnetic, unique natural features of this region draw artists, tourists, guide book authors, and documentary-makers from all around the world. People's fascination with the area lies in the sheer desolation and complete loneliness inherent in the mancos shale badlands – an attribute which is fast disappearing in America today. See *Rainbow Roads Guide to Highways*, Roylance, Ward J., 1953 at 109. The Factory Butte Area has, in recent past, become a popular recreation destination for a relatively small, extreme faction of the ORV community. However, the region's place in Utah's natural history – called one of Utah's grandest butte-forms and regional landmark -- and the need to protect this area far outweighs the perceived need for unregulated, damaging recreation throughout the area by a single user group. See *Utah: A Guide to the State*, Roylance, Ward J., 1982 at 620.

Factory Butte was originally referred to as Provo Factory after the first major industrial installation in Utah, the Provo Woolen Mill. See *History of Wayne County*,

Murphy, Miriam B., Utah State Historical Society at 247. The Area first came under threat of development in the 1970s, when the site was being considered for the proposed Intermountain Power Project (IMP). See Roylance at 620. The IMP was to be the United State's largest coal-fired power generating installation, and despite the area's coal, water, and other physical assets, the proximity to Capitol Reef National Park disturbed then-Secretary of the Interior Cecil Andrus. Id. Andrus worried about the possibility of air quality deterioration in the Park, and a convenient and timely revision to the 1977 Clean Air Act prevented construction of the IMP in the Factory Butte Area. Id.

In 1875, the area was the site of the first major research on landscape processes by G. K. Gilbert, and in 1883 Angustus Ferron surveyed portions of the area for the General Land Office. See 1982 MFP at ACEC/R-1.1, Attachment K. Geomorphic processes in the area have been analyzed since the 1930's, beginning with C. B. Hunt and continuing through today. Id. In 1982, Bureau of Land Management (BLM) resource specialists recommended that much of the Factory Butte Area be designated as an area of critical environmental concern (ACEC) to preserve the scenic, recreational, scientific, biological, watershed, historical and botanical values, and protect them from ORV use, id. – *a recommendation which, as described below, the BLM ignored.*

For nearly a quarter-century[2] the BLM has known the Factory Butte Area to be extremely sensitive, that ORV use within the area is causing resource degradation, and that the area should be closed to ORVs. The 1982 MFP stated that:

> The Caineville area currently receives intensive ORV use . . . and unsightly scars along highway U-24 are increasing. Use has reached the

[2] The BLM actually has recognized this as a major issue for over 30 years – the 1974 MFP recommended closure of portions of the Blue Hills to ORV use and was approved. See 1982 MFP, R-3.5, Attachment K.

> point where "undue and unnecessary degradation" (prohibited by FLPMA) may now be occurring. Complaints from Caineville residents have been received and critical newspaper articles have been published. This area must now either be closed, in which case use will merely move elsewhere,[3] or managed to control use.

See MFP, R-3.1, Attachment K. In recommending closure of the area, BLM resource specialists stated in part that "ORV use in this area conflicts with the recognized geologic, historic, scientific, scenic, and recreational values of the Blue Hills . . . [p]ortions of the area are highly susceptible to natural erosion which would be increased by ORV activity." MFP at R-3.5, Attachment K. The specialists stressed leaving the area open to ORVs would damage other resources, "especially if [ORV] use were to become more intensive in the future." Id.

Despite the recommendations of their own specialists, BLM erroneously determined not to designate most of the Factory Butte Area as an ACEC, and not to close the area to ORV use, but to instead "[c]onduct a study to determine if and to what extent ORV use occurs in the area and if a closure is warranted on all or any part of the area" Id. BLM management promised to complete such study in 1983. Id.

As of today, BLM has not completed the study. Yet —just as predicted by BLM's resource specialists -- ORV use has dramatically intensified, much due to the technological advances in the machines and the ability of the riders that allow them to push farther into rugged terrain that until recent years has been beyond reach. From a management and land protection standpoint, this means more damage to control, and—importantly—more conflicts between non-motorized and motorized recreationists.

[3] The MFP dealt with the problem of ORV users moving elsewhere by designating certain ORV open areas. Unfortunately, the specialist recommendations concluding that

Extreme ORV groups have stated that their unregulated use of the Factory Butte Area is harmless,[4] and their mantra of "you can't hurt it [mancos shale soils], and the ORV tracks will disappear after the next rain" had even influenced certain BLM staff and managers. See email dated 6/02/04, Attachment N. However, if one considers good science and the evidence, the harm is indisputable.[5] And the BLM's administrative file contains scientific studies, monitoring reports, photographs, public comment letters, and other information gathered by agency resource personnel that overwhelmingly establishes that the Factory Butte Area is being irreparably harmed, and describes ORV use-caused conflicts with other resource values, and the unnecessary degradation of such values.[6]

Indeed, an independent expert study was conducted and submitted to the agency that concluded that ORVs are accelerating erosion by four times the natural rate in the Caineville badlands. See John C. Dohrenwend, Ph.D, *Accelerated erosion in areas disturbed by OHV activity in the Mancos Shale badlands of the Factory Butte – North Caineville Mesa area, Wayne County, Utah*, located in BLM's public files and attached herein at Attachment B. Review of this study by the United States Geological Survey found it to be *conservative*, and that the estimate of the amount of accelerated erosion

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such open areas must not be designated unless adjacent areas were closed were not adopted by management in the MFP. It is this flaw that must be corrected now.

[4] See *Richfield Reaper* article titled "Managing access to public lands" February, 2005 (quoting "[t]here's absolutely no reason in the world that needs protection down there").

[5] Following a field visit with Dr. John Dohrenwend, one BLM staff member concluded "I came away convinced OHVs are irreparably changing the area and that the mantra is nothing more than folklore." See email dated 6/02/04, Attachment N.

[6] See e.g. Public comment letters to the BLM, Attachment I; BLM monitoring reports (e.g. 6/18/02 "major rain events – mass slumping by Caineville & along river & wash," Attachment J); memoranda dated July 19, 2000 and October 1, 2004 describing erosion rate and rehabilitation of ORV tracks at selected photograph monitoring sites, Attachment J; and BLM monitoring photographs located in BLM files and included herein by reference.

caused by ORVs could be *far more* than 3-4 times the natural erosion rate in the Caineville badlands. See letter from Mark E. Miller, Ph.D, Research Ecologist, U.S.G.S. to BLM, dated June 2, 2004, Attachment C.[7]

The sensitive vegetation fares no better than the fragile soils discussed above. A survey of Wright's Fishhook cactus found that ORV use in the area damaged both individual specimens and habitat. See Clark/Groebner 2000-2003 Wright's Fishhook Cactus Survey, BLM administrative files. Other special status species may be present within the area that could be negatively affected by ORV use, including the peregrine falcon. See BLM 1999 Wilderness Inventory at 92, Attachment M.

As mentioned above and discussed more fully below, there can be no real dispute that ORVs scar the aesthetic quality of this scenic landscape and accelerate erosion, negatively affect the Wright's Fishhook cactus and possibly other special status species, conflict with other public land users, and cause undue and unnecessary degradation of other resource values in violation of the laws and regulations. Thus, pursuant to 43 C.F.R. §§8341.2, 8342, and 8346.1, and Executive Orders 11989 and 11644, SUWA

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[7] The BLM also has a report titled "Mancos Shale Erosion Monitoring Wayne & Emery Counties, Utah," prepared by Andrew Godfrey, a retired Forest Service employee who has been interested in and has studied mancos shale for over two decades. This report focuses on the length of time user tracks would remain visible, and concludes that they would remain apparent for a number of years up to a decade (obviously these projected time periods assume that use would have to cease, or otherwise the tracks would remain indefinitely). The Godfrey report fails to fully and accurately describe the damage caused by accelerated erosion rates. According to Dr. Howard Wilshire, "[t]he study of Andrew E. Godfrey is extremely limited . . .. At best, this level of data gathering is grossly inadequate to characterize erosional effects of OHV activity in the complex terrain. Declaration of Dr. Wilshire, Attachment D. Dr. Wilshire summarized by stating "the Godfrey report does not provide any meaningful data by which to assess erosional effects of OHV activity. The number of monitoring sites is wholly inadequate for this purpose, the methodology is inappropriate, and measurement techniques are flawed." Id.

hereby petitions the BLM to implement an immediate emergency closure of the Factory Butte Area to ORV use. As outlined above, this Petition requests that all motorized cross-country travel and motorized travel on "existing" routes within the Factory Butte Area be prohibited by this emergency closure, with ORV use limited to the "open area" and roads described in this Petition.[8] This emergency closure will protect the Factory Butte Area pending completion of a comprehensive travel plan in the ongoing RMP revision process, where the Factory Butte Area should be permanently closed to motorized use consistent with the map attached to this Petition. See Attachment A.

REASONS SUPPORTING PETITION TO INITIATE IMMEDIATE EMERGENCY CLOSURE OF THE FACTORY BUTTE AREA TO OFF-ROAD VEHICLES DUE TO PRESENCE OF CONSIDERABLE ADVERSE EFFECTS

I. CONTINUED ORV USE IN THE FACTORY BUTTE AREA VIOLATES EXECUTIVE ORDERS AND APPLICABLE REGULATIONS RESTRICTING ORV ACCESS

Recognizing the destructive effects of ORV use, President Nixon signed Executive Order Number 11644, 37 Fed. Reg. 2877 (1972), which directs the BLM and other agencies to develop and issue regulations that limit the destructive effects of ORV use. The Order requires agencies to define areas in which ORV use will be permitted, restricted or prohibited according to certain guidelines. Areas of use must be located to minimize damage to natural resources such as soil and wildlife, and must seek to resolve conflicts with other users, taking into account noise and other factors. Id. at 2878.

[8] The few motorized routes depicted on the map at Attachment A must be reviewed and analyzed pursuant to 43 C.F.R. §8342, and should be closed to certain types of ORV use

Executive Order Number 11644 was amended in 1977 by President Carter to require agencies to "immediately close" areas or trails to ORV use when he or she determines that "the use of off-road vehicles will cause or is causing considerable adverse effects on the soil, vegetation, wildlife, wildlife habitat or cultural or historic resources." Exec. Order No. 11989, 42 Fed. Reg. 26959 (1977). These areas must remain closed until the agency head makes a specific determination that the "adverse effects have been eliminated and that measures have been implemented to prevent future occurrence." Id.

The strict protective mandates of these Executive Orders were implemented by the promulgation of regulations, codified at 43 C.F.R. §8340 *et seq*. According to the regulations:

> where the authorized officer determines that off-road vehicles are causing or will cause considerable adverse effects upon soil, vegetation, wildlife, wildlife habitat, cultural resources, historical resources, threatened or endangered species, wilderness suitability, other authorized uses, or other resources, *the authorized officer shall immediately close the areas affected to the type(s) of vehicle causing the adverse effect* until the adverse effects are eliminated and measures implemented to prevent recurrence.

43 C.F.R. §8341.2(a).

Under the authority of 43 C.F.R. §§8341, 8342, and 8364.1, the Department of Interior has successfully issued numerous closure orders to protect wetland and riparian areas, cultural resources, wildlife habitat, vegetation, and fragile soils.[9] As described

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if evidence indicates that damages to resources and user conflicts are not minimized by allowing these routes to be open to ORVs.

[9] See e.g., 66 Fed. Reg. 6659 (Jan. 22, 2001) (closure to protect soils, vegetation, and wildlife habitat resources); 62 Fed. Reg. 34303 (June 25, 1997) (closing 56 acres to protect special status plant species); 62 Fed. Reg. 43744 (Aug. 15, 1997) (closing area to ORVs due to adverse effects on soil, vegetation and wildlife habitat); 62 Fed. Reg. 8770 (Feb. 26, 1997) (closure to protect wildlife); 62 Fed. Reg. 67889 (Dec. 30 1997) (closure to protect fragile soils, sensitive plant species and to prevent trespass); (61 Fed. Reg. 43559 (Aug. 23, 1996) (closure to prevent damage to soil, vegetation, and scenic

below, ORV use in the Factory Butte Area is causing and will continue to cause adverse effects to soils, vegetation, special status species, and other resource users.[10] Therefore, the BLM must immediately close the Factory Butte Area to motorized vehicle use.

II. ORV USE IN THE FACTORY BUTTE AREA WILL CONTINUE TO CAUSE ADVERSE EFFECTS TO FRAGILE MANCOS SOIL RESOURCES

The Federal Regulations recognize that ORVs damage soils, and require that trails be located to "minimize damage to soil. . . ." 43 C.F.R. §8342.1. Even the single pass of an ORV on sensitive soils, like the mancos shale found throughout the Factory Butte Area, can cause irreversible landscape damage by accelerating erosion. Indeed, the principle natural attribute preventing the mancos badlands, which are already highly susceptible to erosion, from essentially melting away, is a thin surface layer of permeable soil crust. Although this crust protects against wind and rain, it is so fragile that a mere footstep will immediately destroy its effectiveness, causing the underlying soil to slump away. Of course, ORVs break this layer as their tires dig into the soil, and forces far exceeding soil strength are exerted to allow the vehicle to climb slopes. This type of mechanical erosion

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resources). See also, "Designating Off Highway Vehicle Routes in Land Use Planning Process," Instruction Memorandum No UT 2004-061.

[10] BLM's preferred alternative represented in the recently released "Preliminary Alternatives Summary" as part of the RMP revision process, will not address these concerns. According to agency guidance, an area can only be designated as "open" where there are no compelling resource protection needs, user conflicts, or public safety issues to warrant limiting cross-country travel. As discussed throughout this Petition, there are several resource protection needs, numerous user conflicts, and important public safety issues within and surrounding the Factory Butte Area. Arguably, law and regulation would prevent the BLM from designating any part of the Factory Butte Area as "open," and certainly not the 6,000 acres discussed in the BLM preferred preliminary alternative. However, in order to accommodate ORV use in the Area, SUWA's Petition provides for a nearly 1,000 acre open area and over 100 miles of travel roads throughout the Area (such open area and travel routes must, of course, be strictly monitored.).

is prevalent throughout the Factory Butte Area, as ORVs "highpoint" nearly every ridge and jump over gullies that form the Caineville badlands. See photographs included in the Declaration of Ray Bloxham, Attachment E, exhibit A; photographs included in Dr. Dohrenwend's study at Attachment B; BLM monitoring photographs. The denuded slopes are then left defenseless against the natural forces of erosion.

The BLM has known for decades that ORV use is not compatible within the Factory Butte area. Indeed, as early as 1974, the MFP recommended and approved ORV closure of portions of what it referred to as the "Blue Hills" area. See 1982 MFP at R-3.5, Attachment K. The current MFP also recommended ORV closure, and, in relation to soils, provided the following rationale:

> Portions of the area are highly susceptible to natural erosion which would be increased by ORV activity. URA soils data concluded that "it should be the Bureaus objective to keep surface disturbance to a minimum in all areas where the Mancos Shale outcrops, especially in areas where the overland flow is apparent". Phase I watershed data indicates that over 10,000 acres in the upper Sweetwater Creek drainage are in severe (the worst rating possible) condition. Over 15,000 acres are in moderate condition. 43 CFR 8342.1 directs BLM to locate ORV areas so as to "minimize damage to soil, watershed, vegetation, air, or other resources . . .."

Id. The current MFP also recognized the uniqueness of the area, and the threats posed by ORVs:

> In addition, this area is one of the most important research natural areas where natural erosion processes have been studied since 1875. Any accelerated erosion or damage to soil or earth surface areas would result in studies being less effective regarding the natural processes. The soil and its geomorphic character in the area make it highly sensitive to the type of surface disturbance associated with ORV use. Any restrictions to ORVs will be a positive benefit to the on-going scientific studies and the watershed in general.

Id. The BLM specialist summarized the multiple use recommendation to close the Blue Hills area as follows:

> This recommendation will assist in protecting an area with unstable soils and high scenic and scientific values that has been subject to increasing ORV use. The ORV closure is necessary to protect on-going erosion studies in that portion of the Blue Hills south of state highway U-24. In addition, recreation recommendation R-3.1 will create an ORV concentration area that lies adjacent to the Blue Hills. Closing this area will help contain ORV use to the concentration areas and identify to the public the restricted areas before unwanted user patterns take hold. A finding of no significant impact was determined as a result of the multiple use analysis.

Id. Unfortunately, the specialist's recommendation was not adopted for the Blue Hills area.[11] Rather, the BLM instead decided to conduct a study to determine if ORV closure in all or part of the area was warranted. Id. Such study was to be conducted in conjunction with an activity plan scheduled for completion in fiscal year 1983 for an approved adjacent high use area. Id. No study was completed at that time, yet BLM monitoring reports, photographs, and other documentation in the agency's possession confirm that the predicted damage has occurred. See BLM administrative records including monitoring photographs on file at the Richfield Field Office.

In addition to more recent BLM monitoring, a report prepared for the BLM by Dr. John C. Dohrenewend, adjunct professor in the department of geosciences at the University of Arizona, concludes that ORVs are accelerating erosion by four times the natural rate in the Caineville badlands. See *Accelerated erosion in areas disturbed by OHV activity in the Mancos Shale badlands of the Factory Butte – North Caineville Mesa area, Wayne County, Utah*, located in BLM's public files and included herein at

[11] Ironically, BLM management did accept the other specialist recommendations, including the Caineville high use area, where the specialist recognized that the increased ORV use caused by designating a high use area could be expected to "spill over" into sensitive areas, and warned that such high use areas should not be designated unless the adjacent area (specifically the Blue Hills area) was designated as closed. See MFP, R-3.1, Attachment K.

Attachment B. The report concludes that the amount of soil loss caused by ORVs over the past 25 years is approximately one million pounds (500 tons) per acre of hillslope, producing about 5 to 15 tons of salt per hillslope acre. Id. This scientific study was reviewed by the United States Geological Survey, which found Dr. Dohrenwend's scientific assessments of ORV impacts in the Factory Butte Area to be "methodologically sound and his conclusions well-supported." See letter from Mark E. Miller, Ph.D, Research Ecologist, U.S.G.S. to BLM, dated June 2, 2004, Attachment C. The U.S.G.S. ecologist stated:

> [Dr. Dohrenwend] has taken care to qualify his conclusions due to the limited scope of his study, but his conclusions nevertheless provide ample cause for management concern. Based on his approach, I believe that his assessment is more likely to have *understated* rather than overstated the degree to which OHV activities have led to accelerated erosion on disturbed hillslopes relative to undisturbed hillslopes . . . the estimated rate of accelerated erosion could be far more than 3-4 times the natural erosion rate in the Caineville badlands.

Id. (emphasis in original).

Dr. Dohrenwend's study was also reviewed by Dr. Howard G. Wilshire, a respected geologist that has published several peer-reviewed papers on the soil and other environmental impacts of ORVs, and who has spent substantial time on the ground examining effects of ORV activity in the near vicinity of Dr. Dohrenwend's monitoring sites. See Declaration of Dr. Wilshire, Attachment D. Dr. Wilshire states that he has used the methods used by Dr. Dohrenwend to measure soil erosion for studies of ORV impacts published in several scientific journals. Id.[12] According to Dr. Wilshire, Dr.

[12] In one such study, Dr. Wilshire explains that a dirt motorcycle traveling at five miles per hour disturbs 10,765 square feet of soil per hour. According to a local farmer/business owner who has observed the area for ten years, traveling speeds of ORVs would be closer to an average of ten m.p.h., yielding 21,530 square feet of disturbed soil

Dohrenwend's protocols "are as rigorous as can be expected for the terrain . . . [and] calculations of salt production per hillslope acre are accurate." Declaration of Dr. Wilshire, Attachment D. Importantly, Dr. Wilshire also notes "that an important component of these pollutants is highly toxic selenium." Id.

Accordingly, there can be no dispute that ORVs are adversely impacting the fragile soils of the Factory Butte Area in such a significant way that the landscape will change dramatically and irreversibly unless immediate steps are taken to preclude ORV use in this area. This certain loss of soil and increased production of salt and toxic selenium are events that BLM must take immediate action to prevent.

III. CONTINUED ORV USE IN THE FACTORY BUTTE AREA IS A HEALTH HAZARD

The mancos-shale soils derived from the marine formations in the Factory Butte Area contain elevated amounts of selenium – an element that can cause health problems for humans, livestock, and other animals when ingested in higher-than-required concentrations. See discussion below; USGS fact sheet, http://water.usgs.gov/nwis. Indeed, selenium bioconcentration has caused deformities such as malformed beaks and feet and low embryo survivability in ducks. Id. In humans, selenium builds up mostly in the liver and kidneys but also in the blood, lungs, heart, and testes. See Agency for Toxic Substances and Disease, http://www.atsdr.cdc.gov/toxprofiles/phs92.html. Symptoms of over-exposure include dizziness, fatigue, and irritation of mucous membranes. Id. In

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by a single rider in one hour. A four-wheel ATV would disturb at least twice as much soil, or 43,060 square feet per hour. See letter from Randy Ramsley to Frank Erickson, BLM, exhibit B to Declaration of Randy Ramsley, Petition Attachment F.

extreme cases, collection of fluid in the lungs (pulmonary edema) and severe bronchitis have been reported. Id. The exact exposure levels at which these effects might occur is not known, but they become more likely with increasing amounts of selenium and with increasing frequency of exposure. Id. Very high amounts of selenium have caused decreased sperm counts, increased abnormal sperm, changes in the female reproductive cycle in rats, and changes in the menstrual cycle in monkeys. Id.

ORV travel in the Factory Butte Area causes a three to four fold increase in the amount of selenium-laden soil, releasing this and other potentially toxic elements in the form of 75,000 tons[13] of fugitive soil that pollute the air, water, and crops throughout the area annually. Certainly, this poses a health risk to humans and animals. Therefore, BLM must close the Factory Butte Area, and must not designate an open area larger than that described in this Petition.

IV. CONTINUED ORV USE IN THE FACTORY BUTTE AREA VIOLATES THE CLEAN WATER ACT, and the COLORADO RIVER SALINITY ACT

As discussed above, scientific evidence shows that ORV use in the Factory Butte Area has caused, at a minimum, a 3 to 4 fold increase in the amount of mancos shale erosion, resulting in the production of 500 additional tons of sediment per hillslope acre, that contains 5 to 15 tons of salt per hillslope acre and elevated levels of selenium and other potentially toxic heavy metals and elements. Because the Factory Butte Area forms part of the watershed for the Fremont River, Muddy Creek, and other tributaries to

[13] This figure is conservatively based on ORV travel being restricted to the preliminary BLM preferred alternative that contemplates a 6,000 acre open area. The figure does not include additional accelerated erosion caused by ORV travel on yet unknown routes and trails that would be designated by the BLM throughout the Factory Butte Area as part of the BLM preferred alternative for the RMP revision.

the Colorado River, it is incumbent on the BLM to prevent further degradation of these waters by halting the action that is causing such damage – ORV use.

A). The Clean Water Act. The goal of the Clean Water Act (CWA) is to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters." To this end, the CWA requires federal agencies to comply with state water quality standards. 33 USC §§ 1323, 1313. Moreover, FLPMA requires land use plans to provide for compliance with applicable pollution control laws including state water quality standards. 43 USC 1712 (c)(8).

In 1987, Section 319 was added to the CWA to provide additional emphasis on preventing and correcting non-point source pollution problems. In response, the State of Utah has incorporated narrative biological criteria into its state water quality standards which provide that:

> [I]t shall be unlawful . . . to discharge or place any waste or other substance in such a way as will be or may become offensive such as unnatural deposits . . . or cause conditions which produce undesirable aquatic life . . . or result in concentrations or combinations of substances which produce undesirable physiological responses in desirable resident fish, or other desirable aquatic life . . . .

Utah Admin. Code R317-2-7.2 (narrative standards). The Environmental Protection Agency (EPA) has confirmed that excessive sediments impair a water's beneficial uses:

> [e]xcessive sediments deposited on stream and lake bottoms can choke spawning gravels (reducing survival and growth rates), impair fish food sources, fill in rearing pools (reducing cover from prey and thermal refugia), and reduce habitat complexity in stream channels. Excessive suspended sediments can make it more difficult for fish to find prey and at high levels can cause direct physical harm, such as clogged gills. . . . Thus, whether pursuant to narrative or numerical standards, BLM must evaluate

> all waters to determine whether aquatic life is being impaired by sediments.

Protocol for Developing Sediment TMDLs, EPA 1999 (EPA 841-B-99-004).

The lower Fremont River watershed from the confluence with the Dirty Devil River to the east boundary of Capitol Reef National Park is impaired for designated beneficial use 4,[14] due to high levels of total dissolved solids (TDS). Fremont River Watershed Water Quality Management Plan (Fremont Water Quality Plan), March 29, 2002, at 24. A survey conducted by the Utah Division of Water Quality found numerical criteria exceedences for certain water quality constituents. Id. (citing UDEQ-DWQ, 2000b). In addition, the Muddy Creek from the confluence with the Fremont River is listed as non-supporting its class 4 beneficial use due to salinity, TDS, and chlorides. See Utah's 2004 303(d) List of Impaired Waters.

According to the Fremont Water Quality Plan, "TDS is listed as a criterion for protection of agricultural uses because of the negative effect of high salinity on crop production." Water Quality Plan at 24. In the summer of 2003, the agencies spent nearly $100,000.00 to plug two wells that were contributing salt into the lower Fremont River. See discussion below. However, as the Fremont Water Quality Plan describes, "[b]adlands are the most prone to erosion with sediment yields as high as 15 tons per acre. Since salt production is closely related to sediment yield and badland soils have not been leached of their soluble minerals, they produce the greatest amount of salt loading of the landform types." Id. at 65. The study conducted by Dr. Dohrenwend has established an indisputable connection between ORV use and accelerated erosion that

leads to the production of additional sediment and salts, and also selenium and other potentially toxic heavy metals. See also U.S.G.S. Mancos Shale Landscape Studies finding that mancos shale sequences "are non-point sources for potentially toxic elements such as arsenic, chromium, mercury, and selenium," http://geology.usgs.gov/connections/blm/minerals/mancos_shale.htm. It follows then, that at least some if not all (over the course of time) of this additional sediment, salt and these toxic elements are entering the waters of the Colorado River through its tributaries, including the Muddy Creek and the Fremont River.

Accordingly, in revising its RMP, it is incumbent on the BLM to address sources on BLM lands that are affecting the beneficial uses of area waters, especially sources that can be significantly reduced or *accelerated* based on BLM management decisions. In the interim, BLM must close the Factory Butte Area to ORV use, a known cause of significant additional sediment production.

B). Colorado River Salinity Act. In 1994, Public Law 98-569 amended the Colorado River Basin Salinity Control Act and directed the Secretary to develop a comprehensive program for minimizing salt contributions from lands administered by the Bureau of Land Management (BLM) and to provide a report on this program to the Congress and the Advisory Council. Bureau of Reclamation, Colorado River Basin Salinity Control Program Overview, www.usbr.gov. BLM´s program is designed to provide the best management of the basic resource base. Id. A more stable runoff regime and reduced soil loss should result; thus, benefiting water quality of the Colorado River. Id. Title II of the Colorado Basin Salinity Control Act directed the DOI to manage the

[14] Class 4 beneficial uses are protected for agricultural purposes including irrigation of

river's salinity, including salinity contributed from public lands, and mandated that preference be given to those projects that are the most cost-effective in obtaining the greatest reduction in salinity concentration per dollar spent. Id.

The Colorado River and its tributaries provide municipal and industrial water for about 27 million people in the seven Basin States and irrigation water to nearly 4 million acres of land. Id. The threat of salinity is a major concern in both the United States and the Republic of Mexico, as it affects agricultural, municipal, and industrial users. Id. Damages from increased salinity of water in Mexico are unquantified, but damages in the United States typically range between $500 million and $750 million per year, and could exceed $1.5 billion per year if future increases are not controlled. Id. Locally, Randy Ramsley, a Caineville farmer, has had crops and soils damaged due to saline waters. See Ramsley Declaration, Attachment F.

While the Bureau of Reclamation, the U.S. Department of Agriculture and the Bureau of Land Management purportedly work together with the Colorado River Basin Salinity Control Program to build many salinity control projects on the Colorado River, the program´s overall goal is to cost-effectively reduce the amount of salinity in the river water. In the late 1980's the Bureau of Reclamation proposed a plan designed to reduce the salinity of the Dirty Devil and Colorado Rivers by collecting saline spring water in Hanksville Salt Wash and Emery South Salt Wash and disposing of it by deep well injection. See http://www.usbr.gov/dataweb/html/dirty_devil2.html. According to the plan, surface and alluvial water would be pumped from shallow wells, filtered and chemically stabilized, and then injected into a deeply buried geologic formation, the

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crops and stock watering.

Coconino Sandstone, where it would be stored indefinitely and isolated from any freshwater aquifer now in use. Id. This means of disposal would reduce the salt contribution to the Colorado River by 20,900 tons annually, but at a great cost, and although Reclamation completed a planning report in May 1987, it has not been implemented due to its marginal cost effectiveness. Id.

In the summer of 2003, the BLM did complete a different project to reduce salinity, and cemented in two wells located in the Caineville wash area that were drilled in the mid-1970s by Intermountain Consumers Power Corporation. According to the Fremont Water Quality Plan, the ICPA wells contributed 1,593 tons of TDS. Fremont Water Quality Plan at 69. Since salt is only one constituent of TDS, the actual salt contribution was lower than 1,593. See Id. Cost of the project was approximately $96,000.00. Personal communication with Richfield BLM hydrologist.

In order to be consistent with the stated goals of the Act, the agencies must now consider cost-effective solutions to additional salt contributions to the Colorado River system. Indeed, the Colorado River Basin Salinity Control Forum determined that the BLM should be committed to controlling nonpoint sources through cost-effective land management techniques that result in multiple-resource benefits, and recognized the impact of ORV use on salt contribution to the river system. See *2002 Review: Water Quality Standards For Salinity, Colorado River System*, 4-11 – 4-13. As discussed above, ORV use in the Factory Butte Area over the years has alone produced an additional 5 to 15 tons of salt *per hillslope acre*. Applying this figure conservatively to the Factory Butte Area, just the 6,000 acre open area discussed in the BLM's draft preferred alternative has yielded a minimum of 30,000 tons and may have yielded as

much as 90,000 *additional* tons of salt. Applying the figures derived in Dr. Dohrenwend's study conservatively, a 6,000 acre ORV play area would produce about 75,000 tons of fugitive soil annually, of which approximately 1.5% would be salt. According to this conservative estimate, even confined to the BLM proposed 6,000 acre play area, ***ORVs alone would contribute approximately 1,125 tons of salt annually***[15] ***– an amount nearly equal to the entire TDS contribution of the wells capped in 2003.*** The 1,000 acre area left open as part of this Petition would still result in additional salt contributions caused by ORVs, but such contributions would be significantly reduced. Undoubtedly, this would be a cost effective means to reduce salt load, and must be considered seriously by the agencies.

V. CONTINUED ORV USE IN THE FACTORY BUTTE AREA WILL CONTINUE TO CAUSE ADVERSE EFFECTS TO RIPARIAN RESOURCES, INCLUDING RIPARIAN VEGETATION AND SOILS

Riparian and wetlands areas represent less than 2% of the public lands managed by the BLM nationwide, yet they are some of the most ecologically important landscapes under BLM jurisdiction. See Utah Riparian Management Policy, IM UT-93-93. Riparian areas and wetlands provide rare oases of unique vegetation and water in an arid environment. They also improve water quality by filtering sediment and other pollutants, stem erosion, improve groundwater reserves, and reduce the risk of flash flooding, and are often home to important cultural sites. See Utah Riparian Management Policy, and BLM Handbook 1737.08-09.

[15] This figure does not factor in accelerated erosion caused by ORVs on the as yet unknown routes and trails throughout the Factory Butte Area that would be designated as part of the BLM preferred alternative for the RMP revision.

According to the Henry Mountain Planning Area Management Framework Plan (MFP):

> Riparian areas are an important asset in terms of natural resources because they are a crucial source of biological diversity. They provide popular recreational opportunities, are highly valued by livestock for grazing, watering sites and resting areas, prevent soil erosion on stream banks and are used by wildlife more proportionately than any other habitat type.
>
> In the semiarid west, such areas are extremely scarce and make up a relatively small portion of the land resources. Riparian area degradation has resulted in conditions which adversely influence water quality and quantity, recreational fisheries, area aesthetics, and a wide range of fish and wildlife values, including many endangered, threatened and sensitive species.

MFP WL-2.1, Attachment K.

Because of the critical importance of riparian areas, two executive orders require their protection. Executive Order 11988 (1977) requires federal agencies to avoid adverse impacts associated with the occupancy of floodplains. Executive Order 11990 (1977) requires federal agencies to minimize the destruction, loss, or degradation of riparian areas and wetlands, and to preserve and enhance the natural and beneficial value of wetlands. Further, all federally approved activities must include all practical measures to minimize adverse impacts to wetlands and riparian areas.

In recognition of the paramount importance of riparian areas on public lands, it is BLM policy to "maintain, restore, or improve riparian-wetland ecosystems to achieve a healthy and proper functioning condition that assures biological diversity, productivity, and sustainability . . ." BLM Handbook 1737.06. In regards to riparian areas, the stated objective of the BLM Richfield Field Office/Henry Mountain Field Station is to "[e]nhance, improve, maintain and protect riparian areas on the Henry Mountain Planning Area." MFP WL-2, Attachment K. Although there are several management

actions that can be utilized to maintain or improve riparian areas, BLM is aware that the most effective management prescription for protecting riparian areas from further damage from motorized vehicles is to close the area to motorized vehicle use. See Utah Riparian Management Policy.

The relatively recent introduction of ORV use in Muddy Creek, Salt Wash, and other riparian zones in the Factory Butte Area has already resulted in significant impacts, including rutted and broken down banks, extirpated vegetation, and entrenched streambeds. These impacts are noticeable not only to the trained expert, but to the casual observer. See Bloxham Declaration, Attachment E, exhibit A, photograph ## 13-14.

Therefore, it is incumbent upon the agency to monitor and document the impacts that ORVs are having on these riparian areas, and to assess the information in light of the federal regulations' requirement that BLM minimize the damage to riparian areas when designating ORV trails and use areas. See 43 C.F.R. §8342.1. Until such assessment is completed, closure of these areas to motorized vehicle use is the most effective way of protecting this critical resource from further damage.

VI. CONTINUED ORV USE IN THE FACTORY BUTTE AREA THREATENS THE EXISTENCE OF THE FEDERALLY LISTED WRIGHT'S FISHHOOK CACTUS AND OTHER SPECIAL STATUS PLANT AND ANIMAL SPECIES

According to the regulations, the BLM is obligated to minimize ORV-caused disruption of habitats, giving special attention to protect endangered or threatened species and their habitats. See 43 CFR 8342.1. The federally endangered Wright's Fishhook Cactus (Sclerocactus wrightiae) occurs within the Factory Butte Area. Between 2000 and 2003, Clark/Groebner conducted a survey of Wright's Fishhook Cactus, finding that cross-country ORV travel had crushed individual specimens at four of the eighty-eight

cactus population centers. See also Declaration of Ray Bloxham, Attachment E, exhibit A, photograph ## 15-17 (depicting a Wright's Fishhook cactus killed by an ORV). The study also disclosed that thirty-two additional cactus sites contained some level of ORV use, with sixty-percent of such sites experiencing ORV use within six months. Thus, ORV use in the Factory Butte Area has caused the taking of individual cactus, and the data shows that remaining specimens are increasingly threatened by ORV use. The federally threatened Winkler Pincushion cactus is also present in the western portion of the Area, and may be harmed by the ORV use.

In addition, many other special status species of plants and animals occur or potentially occur within the Factory Butte Area including the peregrine falcon, bald eagle, long-billed curlew, blue grosbeak, common yellowthroat, ferruginous hawk, western red bat, the ringtail cat, barneby milkvetch, rockloving milkvetch, intrusive milkvetch, Harrison milkvetch, and the psoralea globemallow. *Compiled with* Utah DWR Habitat Coverage Data and Utah GAP Analysis. Special status fish species that may be affected by the accelerated erosion, increased salt production, selenium and other potentially toxic elements caused by ORV use in the area include the bluehead sucker, leatherside chub, flannelmouth sucker, and the roundtail chub. Id. Much of the Factory Butte Area is also critical yearlong habitat for pronghorn. Id.

Again, the ORV management regulations require the BLM to "minimize damage to . . . watershed, vegetation or other resources of public lands . . . [and to] minimize harassment of wildlife or significant disruption of wildlife habitats." 43 C.F.R. §8342.1. Thus, in order to comply with the regulations and minimize damage to the above special status species of plants and animals, BLM must immediately close the Factory Butte Area

to ORV use, at least until it develops a convincing plan to address the impacts of ORVs to these species and bring it within compliance with the Endangered Species Act.

VII. ORV SCARS IN THE FACTORY BUTTE AREA DEGRADE ITS UNIQUE SCENIC RESOURCES

Surrounded by the most extensive and well-developed badlands on the Colorado Plateau, Factory Butte is an internationally recognized scenic landmark. Individuals, families, artists and photographers travel from all over the world to experience its remarkable beauty and to seek inspiration in the surrounding, equally spectacular formations that make up the Caineville badlands. Many travelers make the Factory Butte Area an integral part of their visit to southern Utah's National Parks. See Declarations of Randy Ramsley, Stephen Trimble and James Kay, Attachments F, G, H, respectively; see also Comment to BLM, letters, Attachment I.

In the badlands, scenery is not static. Rather, views evolve constantly as the sun and moon traverse the sky, and colors change from grey to blue, from purple to red-orange. The mancos shale badlands, sculpted by natural erosive forces, are a maze of narrow gullies and gulches dissected by closely-spaced, steep, knife-edged ridges. See photographs, Attachment B, Figures 1.1; 1.2; 2.1; 2.2; see also cover photo, copywrite Tom Till. Scenic Byway 24, a formally designated a scenic byway, provides motorists a chance to pass through geologic time within a prehistoric landscape, and then through space over a landscape that to some looks lunar or like the surface of Mars. The Utah Travel Counsel highlights this section of Scenic Byway 24 with this description: "After exiting the park, the route moves east through the stark beauty of Mancos shale hills and

past abandoned settlements of hardy Mormon pioneers." See http://www.utah.com/byways/capitol_reef.htm (emphasis added).

In *Utah: A Centennial Celebration*, a commemoration of Utah's first one hundred years of statehood, photographs of the Factory Butte Area are nestled between those of such nationally-recognized icons as the Maze of Canyonlands, the statuesque formations of Monument Valley in winter, ghost towns, and other historic representations of Utah and the American West's character. (Till, Tom and Williams, Brooke, Westcliffe, 1995 at 38). Countless other photographers have incorporated the Factory Butte Area into their professional repertoire, photographing the area for decades. See Declaration of Stephen Trimble and James Kay, Attachments G, H; see also Comment to BLM, Attachment I (Bruce Hucko 3-21-02; Pete Myers 5-10-2004). According to one highly respected photographer:

> The sculptural lines of the Butte rising above the scalloped hills of gray badlands create a classic composition. The clean, smooth grays of the shale provide a perfect canvas for changing shadows – set off by a few shrubs and wildflowers. It's appealingly simple and dramatically bold – much like an Ansel Adams black-and-white photograph. The overall aspect is as stunning visually as it is geologically.

Declaration of Stephen Trimble, Attachment G. Yet scenic photographs of the Factory Butte Area are now nearly impossible to take – "[a]s sunset approached and Factory Butte lit up with a golden light, I searched in vain for a foreground undamaged by ATV tracks." Id.

Another famous photographer writes:

> Due to natural forces of erosion, these badlands have been sculpted into one of the most surreal and photographically unique landscapes in the West. When I first photographed this area over 10 years ago, ORV usage was just beginning and the impact was minimal. As I passed through this area in subsequent years, I witnessed an exponential increase in ORV use

> with its resulting impact on the land to the point where it is now virtually impossible to find an area to photograph which has not been torn up by ORVs. During an aerial photography shoot several years ago, the area surrounding Factory Butte looked as though someone had taken an armful of spaghetti noodles and thrown them across the land. After this shoot, due to these impacts, I reluctantly removed the area surrounding Factory Butte from my list of photographic destinations in Utah.

Declaration of James Kay, Attachment H. Other well known professional photographers have expressed deep concerns to the BLM:

> Factory Butte has been photographed extensively by Tom Till, Steve Mulligan, David Muench, John Sexton, and many other nationally and internationally known photographers including myself. Our work has helped make Factory Butte a recognized scenic wonder. Many tourist brochures, websites and other media feature this area. Images of Factory Butte are used to help lure tourists to the area. As the tourism industry in this area matures it will become of greater economic importance to the area. It would be shameful to allow the destruction of one of the area's major scenic wonders.

Comment to BLM (Bruce Hucko 5-21-02);

> I would appreciate your consideration in closing the Factory Butte area to cross country ATV travel . . . When I came upon Factory Butte for the first time, I simply was in awe. I hiked two miles to its base in 90+f heat with 25 pounds of photographic equipment . . . This past week marked my second visit to the area. I was greatly saddened to see dramatic markings and erosion in the area that have been caused by cross country ATV travel. Simply put, the abuse by a *few* ATVers has caused great harm to the inherent beauty and ecology of the area.

Comment to BLM (Pete Myers 5-10-2-04, emphasis in original).

Unfortunately, instead of the area's stunning natural beauty, the hundreds of thousands of visitors that pass through these lands each year on their way to, or leaving Capitol Reef National Park are greeted with a spiderweb of ORV tracks blanketing the landscape – a scene more akin to a Mad Max film or a moto-cross racetrack than a natural phenomenon. See Declaration of Ray Bloxham, Attachment E, exhibit A,

photograph ##1-12(a); see also photographs at Attachment B, figures 3.1, 3.2, 8.1, and 8.3. One local resident and professional photographer describes the scene:

> The last time I drove past Factory Butte it happened to be spring break for Utah schools, and the overuse of the area was horrifying. Tucked into every little embayment in the badlands were circles of RV's – all pulling trailers loaded with ATVs. Tracks radiated out from these camps in every direction, while the four-wheelers rammed up the spine of every hill and ridge. The fact that it had been raining made the ruts even deeper. This was clearly damaging the landscape – and there was no sign of management or enforcement.

Declaration of Stephen Trimble, Attachment G.

The Federal Land Policy and Management Act requires that "public lands be managed in a manner that will protect the quality of the . . . scenic . . . values . . . ." FLPMA §102(a)(8). In addition, BLM's Visual Resource Inventory handbook notes that "[v]isual sensitivity will vary with the type of users. Recreational sightseers may be highly sensitive to any changes in visual quality . . . . " BLM Manual H-8410-1 at 3. Of particular applicability to the Factory Butte Area is this guidance:

> Areas seen and used by large number of people are potentially more sensitive. Protection of visual values usually becomes more important as the number of viewers increases.

Id.

The current MFP recognized the scenic value of this unique landscape, and designated the area as Visual Resource Management class II, requiring the agency "to protect the existing, natural character of the landscape. The level of change to the characteristic landscape should be low and should not attract the attention of observers." See BLM Manual H-8410-1, section V.B.2. BLM has known for decades that unsightly

ORV use in the badlands has violated its mandates and attracted the attention of observers. The 1982 MFP stated:

> The Caineville area currently receives intensive ORV use, especially during the spring, and unsightly scars along highway U-24 are increasing. Use has reached a point where "undue and unnecessary degradation" (prohibited by FLPMA) may now be occurring. Complaints from Caineville residents have been received and critical newspaper articles have been published.

See MFP R-3.1, Attachment K (discussing the need to contain this use by designating a small open area while closing the surrounding lands). As acknowledged in the 1982 MFP, if BLM took no action, "random ORV use continue [sic] and adversely affect two scenic highways (U-24 and U-276). BLM efforts to maintain scenic values will be hindered." Id. Importantly, ORV use in the area one-quarter century ago was considered "significant" at a level well below what it is today. Further, according to a recent BLM report:

> The lands managed by BLM as VRM II, especially in the foreground viewshed of the State Scenic Highway, are being adversely impacted by the OHV use. The casual observer can discern changes to the natural character of the landscape, especially since these are steeper slopes. These changes do not repeat the basic elements of form, line, color, or texture. This is significant in that the majority of users are photographers, not OHV users.
>
> Track lines do change coloration, do fade, but in many instances individual tracks can be located years after being laid down by individual riders on a one-time event.

See BLM Memo to File dated 10-1-04, Attachment J; see also BLM monitoring photographs taken within the Factory Butte Area, located in the administrative file at the Richfield BLM Field Office and incorporated herein by reference. Despite this historical knowledge and recent information, the BLM has failed to take effective action. BLM

must now immediately close the Factory Butte Area to ORV use in order to prevent further undue degradation and the continued violation of its mandates.

VIII. ORV USE IN THE FACTORY BUTTE AREA WILL CONTINUE TO CAUSE CONFLICT AMONG PUBLIC LAND USERS

The regulations require that:

> Areas and trails shall be located to minimize conflicts between off-road vehicle use and other existing or proposed recreational uses of the same or neighboring public lands, and to ensure the compatibility of such uses with existing conditions in populated areas, taking into account noise and other factors.

43 C.F.R. §8342.1. ORV use in the Factory Butte Area has conflicted with other public land users for over a quarter-century. As discussed above, the 1974 MFP recommended closure of portions of the area to ORV use, and the 1982 MFP recognized that "[c]omplaints from Caineville residents have been received and critical newspaper articles have been published." 1982 MFP at R-3.1, Attachment K. Twenty-two years later, complaints from Caineville residents and business owners, and citizens across the nation are still rolling in to the BLM office, and newspaper articles critical of BLM's management of the Factory Butte Area are still being published. See e.g. Attachments F (including exhibit C), G, H, and I.

For example, Randy Ramsley, a resident and owner of a small business in Caineville dependant on a fresh water supply and aesthetically pleasing surroundings, has written numerous letters to the BLM discussing his deep concerns over the damage caused by ORV use of the Factory Butte Area, and the conflict between such use and his enjoyment of the public lands and his financial livelihood. In one such letter he wrote:

> I have great concern that the Mancos soils being disturbed by unregulated ORV use are impacting the air and water quality of Caineville and all communities down stream and down wind. I believe that the unregulated use of ORV's is impacting the visual beauty and destroying a unique landscape. . . This scaring and destruction caused by unregulated ORV use precludes any scenic, photographic, scientific, historic appreciation of the landscape. Therefore, unmanaged ORV use is inconsistent with multiple use. The hundreds of thousands of people passing through this area will be left with a memory of a unique landscape sacrificed to the pleasures of a few.

See Declaration of Randy Ramsley, Attachment F, exhibit B, letter to Frank Erickson, BLM.

Other comment letters to the BLM also help illustrate the conflicts of ORV use in the Factory Butte Area with other public land users:

A visiting couple writes:

> In our 60 and 66 years of life, we have yet to see anything so threatening to public lands in proposed wilderness areas as all-terrain, or off-road vehicles. Especially in dry areas such as Utah, we have seen devastating effects. Two years ago, driving east from Capitol Reef National Park through the Hanksville area, we saw a terrible example of irresponsible – and visibly blatant – off-road vehicle use. One minute we were open-mouthed at the barren, incredibly striking hills and formations, and the next minute we felt we had driven into some nightmare area, where the entire area visible from the road was criss-crossed with permanently marked OTR vehicle tracks. Such places will never attract tourist dollars or responsible neighbors, and we can only imagine that this is what the local people want to happen.. . . where we live . . . [t]he abundant dust is causing many of our neighbors to have increased allergy attacks . .. and the noise pervades every activity of life. . . . Because of first-hand experience, we truly understand how violent emotions can arise between hikers and off-the-road vehicle users on land not suitable for recreational machine-driven use.

Comment to BLM, Attachment I (Pat and Mike Boring 3-19-02).

A family from Utah describes:

> Several weeks ago my son of 16 and my daughter of 8 and I joined a friend and her daughter to hike and explore the Factory Butte area. This is not new territory for me – I spent many hours there in my younger years

> (before children) with friends from high school and college. The mancos shale and stark scenery offer wonderful opportunities for quiet and peace . . . But this trip was a little different. While we were there, instead of the heavy quiet spring air surrounding us there was the persistent whine of motors. Our excursion was made memorable not because of the scenery or the quiet or the opportunity for renewal, but because of the number of off-road vehicles we encountered in a 2-hour period. Our concerns shifted from pastime joyfulness to concern for the landscape and even somewhat a concern for ourselves, as walkers are concerned walking by the side of a road. Since we had driven many hours for a chance to hike in the open and be away from the hum and drawl of the city and its cars and mechanical sounds, this was especially disheartening. The youngest of our group, an 8 year old, wanted to know why "they let cars and motorcycles go wherever they want to on the mountain." I didn't know what to tell her since it is contrary to what she has been taught about respecting places and animals, especially fragile ones, and leaving things the way you find them.

Comment to BLM, Attachment I (Brooke Bigelow 4-2-03); see also additional comment letters to the BLM, Attachment I (Jill Rounds 6-1-04), (Ed Lueders 5-21-04), (Array 8-2-04).

Certainly, there is no comparison between the number of people that travel scenic highway U-24 through the Factory Butte Area, some on their way to visit Capitol Reef National Park, and the number of ORV users that are destroying these scenic lands. According to the National Park Service, average recreational visitation to Capitol Reef National Park between 2001 and 2003 was 526,739 people. (figure adapted from visitation numbers listed on the National Park Service website, www.nps.gov). Total visitation for 2004 was 603,947 – an increase of 2.3%.[16] During that same period, the Utah Department of Transportation reported traffic numbers equal to 153,906 as an average annual count taken at the junction of highway 95 in Hanksville and the East boundary of Capitol Reef National Park. (figure adapted from traffic counts listed in Traffic on Utah Highways 2003, UDOT). Although the number of ORV users that ride

recklessly through the Factory Butte Area has not been counted, it can reasonably be assumed to be far less than the above figures, and probably not more than a couple hundred.[17] Indeed, the BLM has noted that "that the majority of users are photographers, not OHV users." See BLM Memo to File dated 10-1-04, Attachment J.

In addition to the *number* of users, there is no comparison between the *type* of use in relation to ORV users and all other multiple uses. ORV use in the Factory Butte Area converts the landscape into a single use that is both damaging and not sustainable. With ORVs present, the area no longer provides outstanding scenery, primitive recreational experiences, and other sustainable multiple uses important to the majority of the public and to the economy of the region. As recognized by business owner Mr. Ramsley, the region's economy "depends on the visual quality of the area. Without the visual beauty around my home my [business] is dead." See Declaration of Randy Ramsley, Attachment F, exhibit B (letter dated March 7, 2004). And on top of it, because ORVs accelerate erosion, salt production, and the release of toxic selenium, such use actually results in a dynamic attack on these other multiple resource values.

IX. BLM MUST CLOSE THE FACTORY BUTTE AREA TO UNREGULATED ORV USE IN ORDER TO PROTECT CRITICAL ENVIRONMENTAL VALUES

The current unregulated ORV use in the Factory Butte Area conflicts with critical environmental and recreational values. In addition to BLM's internal Area of Critical

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[16] The park has been experiencing a 2% increase almost every year. That is an increase of 12,000 visitors yearly.

[17] Randy Ramsley, a Caineville resident and business owner that pays particular attention to ORV use in the area has estimated the number to be "probably no more than 150

Environmental Concern (ACEC) recommendation in 1982, SUWA has submitted a more comprehensive ACEC nomination that seeks to recognize and protect the area's unique scenic, scientific, and natural values. See SUWA Scoping Comments, BLM files. The BLM has the authority to designate ACECs "where special management attention is required to protect and prevent irreparable damage to important cultural, historic, or scenic values, fish and wildlife resources or other natural systems or processes. See IM No. 2003-275 (citing BLM Manual 1613). Further, BLM inventoried much of the Factory Butte Area during its 1999 wilderness reinventory and determined that the inventoried lands had wilderness characteristics. See Utah Wilderness Inventory 1999, U.S. Dept. of the Interior, BLM at 86, 91, 92, Attachment M (see below for additional discussion). According to the IM, "[w]here ACEC values and wilderness characteristics coincide, the special management associated with an ACEC, if designated, may also protect wilderness characteristics." IM No. 2003-275.

As discussed above, lands within the Factory Butte Area are internationally recognized for their incredible scenic value, they form the viewshed for Scenic Byway 24, and they are being irreparably scarred by ORV tracks. Also, these rare and unique badlands were formed by natural deposition and erosive forces that are being irreparably disrupted and accelerated by unregulated ORV abuse. These values, along with the wilderness characteristics that exist in the Factory Butte Area, should be protected through ACEC designation during the resource management planning process. An emergency closure of the Area is necessary to prevent further irreparable harm in the interim.

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riders" in 2002, and currently would place the number at no more than a few hundred.

X. THE FACTORY BUTTE AREA MUST BE CLOSED TO UNREGULATED ORV USE IMMEDIATELY IN ORDER TO PROTECT BLM IDENTIFIED WILDERNESS CHARACTERISTICS

During its 1999 Wilderness Inventory, BLM identified wilderness characteristics throughout the majority of the Factory Butte Area. The agency more recently found additional lands within the Factory Butte Area "likely to possess wilderness characteristics." Further, the remaining lands within the Factory Butte Area are proposed to be protected as congressionally designated Wilderness under America's Redrock Wilderness Act. Indeed, the lands in the Factory Butte Area are either part of or are adjacent to one of the largest wilderness inventory areas in Utah, and the agency found lands in the Factory Butte Area to offer outstanding opportunities for both solitude and primitive unconfined recreation. See Utah Wilderness Inventory 1999, U.S. Dept. of the Interior, BLM at 86, Attachment M.

According to the April 2003 settlement between the Department of the Interior and the State of Utah, and instruction memorandums implementing such settlement, the BLM may manage these lands "using special protections to protect wilderness characteristics." IM No. 2003-274. The IM states:

> Lands with wilderness characteristics may be managed to protect and/or preserve some or all of those characteristics. This may include protecting certain lands in their natural condition and/or providing opportunities for solitude, or primitive and unconfined types of recreation.
>
> The BLM can make a variety of land use planning decisions to protect wilderness characteristics, such as . . . designating lands as open, closed, or limited to Off Highway Vehicles (OHV) to achieve a desired visitor experience.

See Declaration of Randy Ramsley, Attachment F, exhibit B (letter to Frank Erickson).

IM No. 2003-275. Of course, noisy, resource damaging ORV use in the area directly conflicts with the area's naturalness, solitude, and primitive characteristics. An emergency closure of the Factory Butte Area is necessary to prevent continuing undue and unnecessary degradation to these wilderness characteristics until such values can be permanently protected through the completion of the RMP process.

CONCLUSION

The badlands that surround the internationally recognized Factory Butte are the remains of an ancient seabed that form unique knife-edge ridges and steep slopes that gather light and cast shadows coveted by professional photographers, hundreds of thousands of tourists traveling Utah Scenic Byway 24 from the town of Hanksville, Utah to Capitol Reef National Park, and are deeply important to local residents and business-owners that depend on the Area's scenic and ecological integrity for their livelihood. Unfortunately, as described above, ORV use in the Factory Butte Area scars the aesthetic quality of this scenic landscape and accelerates erosion, negatively affects the Wright's Fishhook cactus and possibly other special status species, conflicts with other public land users, and causes undue and unnecessary degradation of other resource values in violation of the laws and regulations. The Factory Butte Emergency Protection Order would help reduce these harmful impacts by allowing ORV use in a well defined and manageable open area and on designated roads, while protecting the remaining lands for their spectacular scenic beauty.

Thus, pursuant to 43 C.F.R. §§8341.2, 8342, and 8346.1, and Executive Orders 11989 and 11644, SUWA hereby petitions the BLM to implement an immediate

emergency closure of the Factory Butte Area to ORV use as described in this Petition. This emergency closure will protect the Factory Butte Area pending completion of a comprehensive travel plan in the ongoing RMP revision process, where the Factory Butte Area should be permanently closed to motorized use consistent with the map attached to this Petition. See Attachment A.