



Reply to:
4848 South Highland Dr., #146
Salt Lake City UT 84117
E-mail: unps@unps.org
URL: www.unps.org

February 23, 2005

FAX TO: 435-688-3258

Larry Gearhart
Bureau of Land Management
345 E. Riverside Dr.
St. George UT 84790

Subject:

Environmental assessment for proposed Rhino Rally Motorcycle
Event (EA)

Dear Mr. Gearhart:

These comments are responsive to the above environmental
assessment (EA). We incorporate by reference and agree with
comments submitted in response to this EA by Therese Meyer dated
February 13, 2005.

The Utah Native Plant Society is a 501(c)(3) non-profit organization
established in 1978 to promote the conservation, appreciation and

appropriate use of plants native to Utah and surrounding ecoregions. The society has members and chapters throughout the state of Utah including Washington County and Kane County.

Further mitigation required concerning the federally listed *Pediocactus sileri*

In the draft recovery plan (U.S. Fish & Wildlife Service, 1982) for another federally listed species that occurs in the area, *Arctomecon humilis*, Map B on the page labeled Figure 3 shows a population of *P. sileri* that occurs on an exposure of Moenkopi on the east end of Warner Valley near the Hurricane Cliffs. The trails as proposed appear to cross this habitat in several places and it does not appear that any mitigation action has been taken or proposed with respect to this area. This area needs to be protected from OHV use.

P. sileri may also occur in other areas within the proposed impacted areas.

BLM sensitive plant species have not been considered

The EA has considered federally listed plant species only. A BLM sensitive and Utah rare species such as *Petalonyx parryi* which clearly occurs in the area has not been considered. Mitigation should include special status (BLM Arizona Strip) or sensitive (Utah BLM) plant species.

Off-road vehicle use poses clear threats to the listed and other plant species

ORV/OHV pose significant threats to rare plant species:

"The most severe threat impacting the dwarf bear-poppy, in addition to the continuing rapid expansion of St. George, is off-road vehicle (ORV) use associated with recreation and mineral exploration. ORV activity can cause large denuded strips on the face of the Moenkopi hills. More widespread and, presumably less fragile species which grow in association with the dwarf bear-poppy are also unable to grow on these barren stripes. Sometimes dwarf bear-poppies have been seen in ORV tracks but only where ORV use has been light. Wherever there has been sustained ORV use, the result is soil compaction and vegetative denudation. Barren scars are left on the hillsides where the

cryptogamic crust occurred and vascular plants such as the dwarf bear-poppy used to grow." (US Fish & Wildlife Service, 1985, p. 8).

"The primary threat that needs to be eliminated is the heavy ORV use on the Moenkopi badlands where the poppy grows." (US Fish & Wildlife Service, 1985, p. 15).

ORV threats to *Pediocactus sileri* are similarly documented in the recovery plan for that species (US Fish & Wildlife Service, 1986).

These threats cannot be underestimated in scope.

Further a species such as *Pediocactus sileri* is extremely slow going; it may take a plant some 10 years before even producing any fruit (Hreha and Meyer 1993-1997 monitoring study reports). Any direct impact such as that alluded to on page 28 of the EA would likely be devastating.

Impacts to biological soil crusts require analysis

BLM Technical Reference 1730-2 (Belnap, 2001) recommends an analysis of impacts to biological soil crusts on all use applications (p. 70). It is clear that crusts will be impacted by this event, the extent of which has not been determined. Biological soil crusts play a critical role in desert ecosystems (Belnap, 2002). Soil surface disturbance including mechanical disturbances by vehicles reduces or eliminates nitrogenase activity in biological soil crusts (Belnap, 2002; Belnap, 2001).

Beneficial/critical relationships between biological soil crusts and rare plants in the region have been established. For purposes of both soil control and providing biologically usable nitrogen, crusts have been shown to be important to *Arctomecon humilis* (Harper and Van Buren, 2004). Thick biological soil crusts have typically been observed in association with *Pediocactus sileri* (personal communications with Leila Shultz, Vince Tepedino and Therese Meyer, Feb. 2005 and our own observations) and play a critical role in the survival of that species.

Limit impacts to creosote bush communities as a management policy whenever possible

While there are exceptions to this rule (for example, the BLM Arizona Strip Field Office special status species *Tricardia watsonii*, a species

which also occurs in Washington County and which should be accorded a similar status in Utah, occurs in association with creosote bush), rare plant habitat (both existing and potential) can be avoided by limiting impacts to creosote bush shrub dominated communities. The rare plants in the area are typically highly restricted by soil type. Seeds of most of these species are long-lived and may exist on lands where plants may not be currently found. Further, what little remaining potential habitat remains needs to be protected so that these species have some chance of survival.

Buffer zones around biological crusts and rare plant habitats must be implemented

Where crusts are found and/or in connection with soil types that rare plants in the area are known to be found (Moenkopi formation particularly the Shnabkaib, but also the Middle and Upper Red members, white gypsum soils, etc.), OHV and other trails cannot simply be allowed to be placed proximate to those areas. *Arctomecon humilis*, *Pediocactus sileri* and *Petalonyx parryi* are all gypsophiles so gypsum soils with or without biological crusts require extra protection. OHV riders may have to avoid another rider or some other obstacle or may crash or experience a mechanical failure and be forced to move the vehicle off the trail. Buffer zones ideally should allow for at least 50 meters between trails and sensitive habitats. Where buffer zones cannot be implemented then cables, posts or other devices may need to be implemented to help ensure that riders will not swerve or be tempted to travel off the trail.

Comprehensive OHV planning needed

We do not oppose responsible OHV use. But a critical component to future planning in Washington County includes a master plan for OHV use. Portions of the area covered by this EA may be a logical place to allow some level of concentrated OHV use pursuant to a master plan designed to alleviate resource conflicts in other areas. Without such an overall plan in place coupled with extensive educational efforts and enforcement, ecological disaster is inevitable. UNPS is interested in partnering with federal and state agencies as well as OHV groups and private citizens to assist in planning, education and other efforts necessary to preserve quality of life.

Hold events in the least ecologically sensitive timeframes

Therese Meyer in her letter dated February 13, 2005 pointed out soil fragility during the rainy season; at the same time however since crusts are only metabolically active when wet and are brittle when dry, disturbance in the dry season may be more destructive and the crusts less able to recover than when disturbed in wet seasons, an exception possibly relating to crusts on clay soils (Belnap, 2001, p. 45). All of these factors need to be taken into account.

Thank you for consideration of these comments.

Sincerely,

Utah Native Plant Society

Tony Frates
Conservation co-chair
unps@unps.org
801-277-9240

References:

Arizona Rare Plant Committee. Arizona Rare Plant Field Guide: A Collaboration of Agencies and Organizations. Undated (published ca. 2001).

Belnap, Jayne et.al., 2001. Biological soil crusts: Ecology and Management. Technical Reference 1730-2. United States Department of the Interior, Bureau of Land Management. Denver, Colorado. 110 pp.

Belnap, Jayne. 2002. Impacts of off-road vehicles on nitrogen cycles in biological soil crusts: resistance in different U.S. deserts. *Journal of Arid Environments* 52:155-165.

Harper, K.T. and R.V. Buren. Dynamics of a Dwarf bear-poppy (*Arctomecon humilis*) population over a sixteen-year period. *Western North American Naturalist* 64(4), pp. 482-491.

Heil, Ken, Barry Armstrong and David Schleser. 1981. A review of the genus *Pediocactus*. *Cactus and Succulent Journal* 53:27-28.

U.S. Fish & Wildlife Service. 1982. [Draft] Recovery Plan for the Dwarf Bear Poppy. John Anderson, U.S. Fish & Wildlife Service, Denver, Colorado. 37 pp.

U.S. Fish & Wildlife Service. 1985. Dwarf Bear-Poppy Recovery Plan. U.S. Fish & Wildlife Service, Denver, Colorado. 26 pp.

U.S. Fish & Wildlife Service. 1986. Siler Pincushion Cactus Recovery Plan. U.S. Fish & Wildlife Service, Albuquerque, New Mexico 57 pp.

Utah Native Plant Society. 2003-2005. Utah Rare Plant Guide. Salt Lake City, Utah. <http://www.utahrareplants.org>.

Welsh, S. L., N. D. Atwood, S. Goodrich, and L. C. Higgins. 2003. A Utah Flora. Third edition. Brigham Young University Press. Provo, Utah. 912 pp.