

## **Appendix M: Description of Scientific Working Group**

### **Science Partnership Center of Black Rock Desert-High Rock Canyon Emigrant Trails National Conservation Area**

The Black Rock Desert–High Rock Canyon Emigrant Trails National Conservation Area (BRD-HRC NCA) offers the scientific community a unique opportunity to participate in a variety of research activities based on the geological, ecological, cultural, historical, and economic features of this region. The Bureau of Land Management proposes to establish the **Science Partnership Center** (SPARC) of BRD-HRC NCA to provide a place and an environment designed to expand the science needed to understand and manage these resources. SPARC would have the core mission to encourage and facilitate a research partnership in which the scientific community, the resource managers, the resource users, and the general public can pursue a common goal of learning more about what the NCA contains, how it got this way, how it functions, and how it can best be appreciated and managed.

Although formed and sited within the structure of the NCA, SPARC would function as a neutral focal point for the exchange of information and ideas. Further, SPARC would provide an open door, or perhaps gate, to a rich and still largely unknown desert and mountain world, through which science can freely move, in both directions. Anyone wishing to pursue serious scientific inquiry which would be enhanced by access to the NCA, and would be supportive of the mission of SPARC, would be welcome to join the partnership. SPARC would be able to coordinate selection, designation and protection of field research sites for approved projects. In partnership with funding sources SPARC would provide sponsored internships and facilities for on-site research projects. SPARC would also host an annual conference for presentation and discussion of research results. A wide range of research projects could result from the SPARC initiative. Examples might include:

- Landscape ecology in the context of long-term geologic processes.
- Ecological impacts of mechanical land disturbances on soil surface features and plant communities in shrubland zones of the NCA.
- Pleistocene hydrology and relationships to then-contemporary and subsequent biology of region.
- Constraints on sustainability of current and proposed land uses in the NCA.
- Role of soil cryptophytes in stability and productivity of Great Basin desert ecosystems.
- Competition for range forage among livestock and other large herbivores.
- Range vegetation changes since late 1800's in relationship to range fires and livestock grazing.
- Long-term role and management of livestock grazing in wilderness areas.
- Management responses to public interest in Wild Horse and Burro program.

## *Appendix M: Description of Scientific Working Group*

- Noxious weed control strategies for wilderness and non-wilderness areas.
- Economic impacts of intensive development of remote desert resources.
- Evaluation of locally native vs. exotic plants for rangeland rehabilitation.
- Relationships between livestock grazing and sage grouse reproduction.
- Ecologic and economic implications of wildlife re-introductions in the NCA.
- Aeolian influences on plant geography of the Black Rock Desert region.
- Human habitation near Pleistocene lakes of Black Rock Desert region.
- Concerns of, and for, Native American land resource interests in the NCA.
- Carrying capacity of cold desert landscapes for recreation uses and visitors.
- Public perceptions of relationships and impacts among multiple uses of NCA.
- Roles of public interest groups in management of NCA land resources.
- Long-term “outdoor” laboratory and classroom values of NCA.
- Actual and potential roles, both collaborative and conflicting, of federal, state, and local government authorities, plus private entities, in the control and management of NCA resources for scientific and educational purposes.
- Design and management of visitor information and accommodation facilities for the Black Rock Desert-High Rock Canyon Emigrant Trails NCA.
- Opportunities for expansion of private-sector visitor services for the NCA.

### **Objectives**

1. To encourage and facilitate a research partnership in which the scientific community, the resource managers, the resource users, and the general public can pursue a common goal of learning more about what the NCA contains, how it got this way, how it functions, and how it can best be appreciated and managed.
2. To provide both a physical administrative location and a philosophical administrative commitment to support inquiry into the natural, social, and cultural phenomena which determine the uses and future of our land resources.

### **Rationale**

Sound management of the NCA planning area depends on the availability and application of reliable information. To make land use decisions managers choose and use information of variable reliability from many sources. For a given level of managerial skill and professional judgment, the outcome of land use decisions could well depend on the completeness and quality of the supporting information on which they are

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based. Good resource information can be the key to good resource management. Few land resource managers would declare that they had too much, or even enough, good information about their region of concern. This newly-established NCA certainly qualifies as a place about which land managers do not have more reliable, relevant land resource data than they can use.

Encouragement and support of independent research into questions related to the NCA could directly and materially improve the management of NCA resources and programs. The challenges of managing a complex system of inter-related physical, biological, social, cultural, political and economic elements will be an open-ended, ongoing process of seeking and applying good decisions. Good decisions are usually based on what has come to be labeled as “good science.” SPARC would be dedicated to providing an environment and an attitude where “good science” would be at home.

### **Proposed Actions**

1. Develop a working advisory board (or committee) drawn primarily from the scientific community, but with representation from other members of the public with an interest in the objectives of SPARC.
2. Communicate actively with the public to encourage participation.
3. Coordinate research activities for approved projects within NCA.
4. Sponsor an annual conference for presentation of research results.
5. Facilitate working sessions to transfer research results to managers.
6. Invite public feedback on objectives and results of SPARC activities.

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