UNLV | UNIVERSITY LIBRARIES

Oliver Ranch Project | Red Rock Desert Learning Center

2006

Red Rock Desert Learning Center & Wild Horse and Burro Facility: Frequently Asked Questions

Red Rock Desert Learning Center

Follow this and additional works at: https://digitalscholarship.unlv.edu/pli_red_rock_learning_center_oliver_ranch

Part of the Desert Ecology Commons, Environmental Sciences Commons, and the Science and Mathematics Education Commons

Repository Citation

Red Rock Desert Learning Center (2006). Red Rock Desert Learning Center & Wild Horse and Burro Facility: Frequently Asked Questions. 1-6.
Available at: https://digitalscholarship.unlv.edu/pli_red_rock_learning_center_oliver_ranch/19

This White Paper is protected by copyright and/or related rights. It has been brought to you by Digital Scholarship@UNLV with permission from the rights-holder(s). You are free to use this White Paper in any way that is permitted by the copyright and related rights legislation that applies to your use. For other uses you need to obtain permission from the rights-holder(s) directly, unless additional rights are indicated by a Creative Commons license in the record and/or on the work itself.

This White Paper has been accepted for inclusion in Oliver Ranch Project by an authorized administrator of Digital Scholarship@UNLV. For more information, please contact digitalscholarship@unlv.edu.

FREQUENTLY ASKED QUESTIONS

RED ROCK DESERT LEARNING CENTER & WILD HORSE AND BURRO FACILITY

MISSION

"The mission of the Red Rock Desert Learning Center is to instill stewardship and respect by increasing knowledge and understanding of the Mojave Desert ecosystems and cultures through a unique experiential discovery program."

The Red Rock Desert Learning Center is being designed to teach participants about the natural world through inquiry-based experiential and interdisciplinary methods in a residential outdoor setting in Red Rock Canyon National Conservation Area. The intent is for students, teachers, and researchers to gain an appreciation of desert ecosystems and to begin to apply and connect their knowledge to world ecological systems. Fifth grade students will be encouraged to develop their own conclusions about how environmental stewardship fosters the continued existence of the natural world and the sustainability of resources.

The residential component and on-site laboratory and classroom facilities will provide educators with the necessary time and organization to maximize the exploration of scientific topics. There currently is no residential field school in Southern Nevada, and very few study centers for arid lands exist in the United States. The Red Rock Desert Learning Center will fill an important niche that is lacking in the educational programming now available in Southern Nevada.

Broad participation supported by the local educational system will also provide an opportunity for students who may never otherwise visit the Red Rock Canyon National Conservation Area. Located on the site of the former Oliver Ranch, the school will allow fifth graders to encounter not only the cultural history of the area and the natural sciences but also to learn about sustainable living and building practices from the campus design.

The Wild Horse and Burro Facility adjacent to the Desert Learning Center offers an opportunity to educate the public about the National Wild Horse and Burro Program and the challenges of maintaining these animals in ecological balance. The Red Rock Canyon National Conservation Area has an active Herd Management Area, with horses and burros living in the immediate vicinity. While the Bureau of Land Management currently operates other wild horse and burro facilities in the western states, those facilities typically serve as large sanctuaries and adoption facilities. The facility is planned as a relatively small storefront operation for encouraging adoptions and promoting education about wild horses and burros. As such, it will be the only such facility of its kind in the country.

Both the Desert Learning Center and the Wild Horse and Burro Facility will be designed with environmental sustainability in mind. The facilities are being funded through the 1998 Southern Nevada Public Land Management Act, which authorized the Secretary of the Interior to dispose of federally owned land within a specified boundary around Las Vegas, with the proceeds to be used, in part, to complete capital improvement projects in surrounding conservation areas and recreational areas.

© 2006 University of Nevada, Las Vegas

FAQ

Where Did the Idea for the Science School Originate?
Who will the Desert Learning Center Serve?
What Facilities Are Planned for the Science School?
Why Is the School Being Designed as Residential Facility?
Will Scholarships Be Available?
What Will Be Taught at the School?
Who Is Going to Operate the School?
Will There Be Public Access to the School?
What Facilities Are Planned for the Wild Horse and Burro Facility?
What Care is Being Taken to Preserve the Cultural & Historical Aspects of the Site?
Are Steps Being Taken to Reduce the Visual Impact of the School on the Surrounding Conservation Area?
Will "Green Building" Technology Be Incorporated Into the Science School?
Is There Enough Water To Sustain The School?
Will a Formal Environmental Analysis Be Conducted?
How Was the Architect Selected for this Project?
Was There Public Input into the Design of the School?
When Will the Center Open?
What Is the Cost of the Center and How Is It Being Funded?
How Can I Learn More About This Project?

Where Did the Idea for the Science School Originate?
After having visited other science schools in the western United States, Las Vegas resident Blaine Benedict presented an initial concept for a Mojave Desert environmental science school to the Bureau of Land Management in Fall 1999, during the period when the agency was seeking public comment on its general management plan for Red Rock Canyon National Recreation Area. The BLM subsequently asked Mr. Benedict to provide a more fully developed conceptual proposal for the school, and general plans for a potential school were added to the Red Rock Canyon general management plan. Soon thereafter, Mr. Benedict joined forces with the Outside Las Vegas Foundation to begin more targeted planning for a science school in Southern Nevada. In July 2003, a group of interested residents and business and government representatives began meeting to share information and participate in further planning for the school. Those meetings have continued on a monthly basis to date.

Who Will the Desert Learning Center Serve?
The center will provide a specialized outdoor experience to fifth-grade elementary students from the greater Clark County area, drawing from public, charter, and private schools as well as home-schooled youth. However, the school is conceived to be national in scope, particularly through the use of internet connectivity. Teaching modules can be exported to students in any state via the World Wide Web and videoconferencing. A continuing environmental education program for local classroom teachers is planned. Similarly, in-service teacher training on the Mojave Desert environment may also be delivered to school teachers in other states.

During the early planning stages of the science school, it was determined that fifth grade would be the most appropriate educational year upon which to focus the curriculum. This is the grade in which environmental science concepts are incorporated into the statewide science curriculum standards.

© 2006 University of Nevada, Las Vegas

What Facilities Are Planned for the Science School?

As presently conceived, the science school will feature accommodations for a maximum of 105 students, plus teachers and aides; indoor and outdoor classroom venues and laboratory facilities; interpretive trails; environmental monitoring stations; dining and kitchen areas; an infirmary; administrative offices; and a wastewater treatment plant. A Wild Horse and Burro facility will be located on the same property as the school complex. This facility will be an integral part of the students' education at the school.

Why Is the School Being Designed as a Residential Facility?

Educators throughout the world agree that fifth grade students are at an optimal age to benefit from an outdoor overnight program. A multi-day experience has the potential to make a significant impact on students of this age, particularly with respect to instilling a lifelong civic responsibility to value and protect public lands. The students become more at ease in the outdoors, and the residential experience provides them with the time they need to begin to understand the interconnectedness of various branches of science and the importance of nature in their world.

Will Scholarships Be Available?

Current plans call for students to be charged a nominal fee to attend the school and for scholarships to be offered for low-income families and those with special needs. Specific details will be developed in collaboration with the school operator.

What Will Be Taught at the School?

The curriculum for the school is currently under development by UNLV education faculty, Clark County School District personnel, and scientists from the Desert Research Institute. At present, it focuses on 6 key areas: Ecosystems, Night Sky, Green Building, Historical, Cultural Connections, and Wild Horse and Burro. The curriculum will meet local, state, and national science standards and will focus upon interactive experiences in environmental education, earth and physical science, ecology, and biology. Curriculum modules will include classroom activities that occur prior to the residential experience as well as follow-up activities when the child returns to his or her regular classroom setting. Plans also call for students to participate in curricula that integrates their scientific studies with the history and culture of the area, astronomy, energy sustainability, the arts, the wild horse and burro program, and conservation ethics, practices, and stewardship.

Who Is Going to Operate the Facility?

The Red Rock Desert Learning Center will operate independently of the Clark County School District and is not funded by school district appropriations. The BLM plans to solicit formal proposals from organizations with an interest in operating the school. It is anticipated that an operator will be selected by the BLM in 2006.

Will There Be Public Access to the School?

The Red Rock Desert Learning Center will not be a public facility. Teachers will make application to have fifth-grade classes attend the school on a schedule that has yet to be developed. Other uses for the center, when it is not hosting schoolchildren and teachers, are still being formulated. However, any potential uses must fall within the environmental education mission of the school and within the National Environmental Policy Act (NEPA) requirements.

The Wild Horse and Burro Facility will have some public access at particular times of year, such as when adoption events are held. However, in order to protect the safety and well-being of the

© 2006 University of Nevada, Las Vegas

animals, the complex will not be a public-use facility. Interpretive exhibits related to the facility and its mission will be located at the nearby Red Rock Canyon NCA Visitor Center.

What Facilities Are Planned for the Wild Horse and Burro Facility?
As presently conceived, the wild horse and burro facility will feature a resident horse barn; holding corral; animal infirmary; pasture; storage facilities; and an amphitheatre/arena for adoptions. The facility will not be a sanctuary for long-term holding of wild horses and burros. Rather, the facility is intended as an educational site to inform the invited groups about the ecological issues related to these animals and to serve as a customer-friendly adoption center for a small number of gentled horses and burros.

What Care is Being Taken to Preserve the Cultural & Historical Aspects of the Site?
A wealth of cultural history surrounds the Oliver Ranch area, enhancing the educational opportunities associated with the desert ecosystem. There is an extensive Native American history, including Native American sites occupied by the prehistoric ancestral Puebloan and the Pinto/Gypsum groups, and more recently, by the Patayan and southern Paiute. Other history includes early exploration, missionary influence, prospecting, mining, and ranching.

The design of the Red Rock Desert Learning Center will be sensitive to this history by using sections of the existing ranch structures, especially the stone walls, as part of new buildings or outdoor rooms. The physical siting of the school will be designed to minimize the impact on the surroundings.

The architectural design team and the curriculum coordinator have been meeting with representatives of Native American tribes to determine ways in which to incorporate cultural traditions into the site development and overall curriculum.

Are Steps Being Taken to Reduce the Visual Impact of the School on the Surrounding Conservation Area?
Yes. The BLM management plan for the Red Rock National Conservation Area sets different classifications for setting the "look" of facilities on public lands. The notion of "key observation points" are important to the design, which involves looking at how the development contrasts with its environment. For the Oliver Ranch project, the road through Red Rock Canyon NCA is a key observation point, as are Spring Mountain State Park and Bonnie Springs. The goal is to design a facility that does not draw one's immediate attention from the roadway. Thus, the existing vegetation and use of colors and materials that visually blend into the natural surroundings will be key design considerations.

Building footprints will be minimized to reduce land impact and maximize open space. Context-sensitive design is an important consideration of the project architects. Vehicular access will be minimized to reduce impact on the land and maintain the sense of place, and parking will be set back to further reduce visual impact.

Will "Green Building" Technology Be Incorporated Into the Science School?
Yes, this is a major goal for the project, and plans call for this technology to be used as part of the learning experience and incorporated into the science curriculum. A number of references and resources – including *Energy Design for High Performance Schools in Hot and Dry Climates*, *The Guiding Principles of Sustainable Design*, and the LEED Green Building Rating System ™ -- have been used in developing the initial green building concepts for the school. Both the Science School and the adjacent Wild Horse and Burro Facility will incorporate sustainable features in their design and operation. At present, it is estimated that the complex will qualify for

© 2006 University of Nevada, Las Vegas

the LEED Gold rating, the second highest possible rating in the LEED system. All new construction is being sited very sensitively to minimize disturbance. Use of on-site renewable energy (such as solar, wind, and bio-gas) will be a major theme, interlaced with energy conservation in general. Use of recycled materials, those with low embodied energy and those not containing or emitting toxics, will be emphasized. Natural lighting will be maximized, and artificial lighting will not only be highly efficient but will be designed so as not to scatter or diminish the night sky.

Is There Enough Water To Sustain The School?

BLM has an allocation of 19.1 acre feet of surface water per year for this site. Currently, an environmental assessment is underway to study whether the site can sustain the school. Water is a precious resource in the desert and, therefore, it is essential to reduce, reuse, and recycle it. Current designs call for usage of no more than 10 acre feet for the entire complex – 9 acre feet for the school and 1 acre foot for the wild horse and burro facility. If the environmental assessment demonstrates that the school can be safely built on the site, the following concepts will help reduce water consumption at the school:

- Incorporation of native and drought-resistant plants and xeriscape principles to reduce the need for irrigation.
- Construction of an on-site wastewater treatment plant, which will recycle all effluent for reuse in a variety of ways, including irrigation.
- Use of water-conserving plumbing fixtures to maximize water efficiency.
- Use of non-flushing, waterless urinals to reduce water utilization.
- Construction of groundwater and rainwater monitoring stations.

Will a Formal Environmental Analysis Be Conducted?

A formal environmental assessment study of the site is currently underway by Otak, Inc., a design, planning and engineering firm. Otak's findings on the Oliver Ranch environmental assessment are expected to be provided to the Bureau of Land Management in March 2006. If deemed necessary as a result of those findings, a broader environmental impact study may be conducted as well.

How Was the Architect Selected for this Project?

The federal Brooks Act requires that selection of federal contractors for professional services must be made on the basis of qualifications only and cannot be restricted geographically to in-state firms. In July 2002, the Bureau of Land Management published a pre-solicitation notice for planning, design, and construction assistance. Thirty-seven firms responded with submissions demonstrating their qualifications, which were then screened and evaluated by a panel of BLM professionals under the direction of a contracting officer from the BLM's National Business Center. The screening process resulted in a short list of three firms which were interviewed in December 2002. Line and Space Architects of Tucson, Arizona, was selected and, in May 2003, the firm was awarded a contract to perform various architectural services for the BLM over a 5-year period. In February 2004, the firm was assigned to provide pre-design services for the Oliver Ranch project.

Line and Space Architects specializes in environmentally sensitive architecture. Many of the firm's projects contain new approaches to recycling, including water harvesting and gray water reuse. Examples of the firm's projects include the Arizona Sonora Desert Museum in Tucson, Arizona; the National Historic Trails Interpretive Center in Casper, Wyoming; and the Boyce Thompson Arboretum Visitor Center in Superior, Arizona.

© 2006 University of Nevada, Las Vegas

Was There Public Input into the Design of the School?
In July 2003, BLM started meeting with a public group open to any interested residents and community business persons and government representatives began meeting to share information and participate in further planning for the school. This group has continued to meet on a monthly basis to provide the BLM with ongoing public input, and the meetings are open to anyone who wishes to attend. In addition, in April 2004 Line and Space Architects held 42 separate sessions over a 3-week period with a broad cross-section of the Southern Nevada community to gather input into the programming of the project. The architects have also made presentations on the project on several occasions to the Blue Diamond Citizens Advisory Council. Members of the Core Group gathered input on effective school designs through field trips to other science schools in the western United States and have shared this information with the architects.

When Will the Desert Learning Center Open?
The current planning timeline calls for construction of the Red Rock Desert Learning Center and the Wild Horse and Burro Facility to be completed by December 2008, with the facility opening in March 2009.

What Is the Cost of the Center and How Is It Being Funded?
The facilities are being funded through the 1998 Southern Nevada Public Lands Management Act, which authorized the Secretary of the Interior to dispose of federally owned land within a specified boundary around Las Vegas, with the proceeds to be used, in part, to complete capital improvement projects in surrounding conservation areas and recreational areas. The Red Rock Desert Learning Center is currently funded through two Capital Improvement nominations approved by the Secretary of the Interior. The Round 4 nomination totals $22,405,998 plus a 10 percent contingency. The Round 5 nomination totals $18,935,999 plus a 10 percent contingency.

How Can I Learn More About This Project?
Additional information about the Red Rock Desert Learning Center and the Wild Horse and Burro Facility may be obtained from the Bureau of Land Management at the following address: Michael Reiland, Project Manager, 4701 N. Torrey Pines Dr., Las Vegas NV 89130, Telephone: (702) 515-5026.

© 2006 University of Nevada, Las Vegas