

Society for the Conservation of Bighorn Sheep

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SUBJECT: Stirling Energy Systems - Newberry Spring

Directed to the distinguished members of the California Energy Commission and the professionals at Stirling Energy Systems.

On behalf of the Society for the Conservation of Bighorn Sheep, I wish to follow-up on discussions and information that have been exchanged.

For the record, our organization is against any and all loss of bighorn sheep habitat or any loss of habitat in general. However, we understand the unique nature of current needs for alternative energy. The future benefit for the population may outweigh the benefits of a complete and intact ecosystem with all the necessary components. We do feel, however, that a partnership or working relationship can help offset some of the negative effects that most assuredly will occur with the loss of critical habitat in the prescribed areas discussed.

The concern for our environment and the partnership that must be established between the private sector/government agencies/industry and commerce can in time have a positive influence on habitat loss with this and future energy projects. Forming a partnership can and will benefit all concerned for the immediate and long term future of the wildlife. The commitment to the resources and the willingness to improve, enhance and maintain the habitat and its occupants can be an unbelievable opportunity to get it right and do it right.

Our wish is to have a standard that others may learn from and the opportunity presents itself for that purpose. Let's consider working together collectively for the common good.

An item that needs to be considered and factored in would be the need for a baseline to be established as to what we have prior to construction, intensive monitoring during construction, and follow-up on an ongoing basis to assure that there are no undesirable affects that cannot be adjusted for. This should include, but in no way be limited to, air and ground surveys of the desert sheep in the surrounding mountain ranges.

Capture work, collaring and monitoring the movement of a sampling of the local bighorns before, during and after is crucial information that the Department of Fish & Game most assuredly will be in need of in order for proper management. The baseline is to be established by the Department of Fish & Game professionals.

Due to the high probability of multiple renewable energy sites, it is absolutely mandatory to consider a buffer zone. This will help with the connectivity of the local population and maintain the

metapopulation dynamic at work with this sheep population. A wildlife corridor is absolutely essential for a healthy and viable population and for a healthy gene pool exchange. This safe zone or buffer zone establishes a guideline or benchmark for any future development and additional loss of habitat.

With regard to potential aquifer depletion with the additional use of water for construction and/or maintenance, we are not convinced that this will not have an adverse effect on the surrounding springs and seeps that are so precious to the resident wildlife population, and the importance of water management and conservation that must be applied.

The importance of an agreement or a memorandum of understanding from all government agencies, (Department of Fish & Game and Bureau of Land Management) to assure that habitat improvements can and will take place in and around surrounding areas controlled by these authorities. Habitat work such as water hole improvements, replacement water, new wildlife drinkers, existing spring improvements, or spring development will help offset the negative impact of this and/or other future projects. This is a very important issue, something that we feel strongly about and an issue that must be addressed from the beginning.

It is also imperative that we must maintain access through and/or around current and future impacted sites. This access is important for proper wildlife management. Any threat or problems of accessibility to the mountain ranges could cause great harm to the resources. This could be a simple memorandum of understanding from the concerned parties to allow the Department of Fish & Game and its agents (SCBS) complete **unregulated** access through and/or around impacted sites.

To have the affected areas be decommissioned or reverted back to natural habitat upon the sunset of the original agreement/viability of current and/or future technology, and that reclamation be full and complete, not unlike mining companies are obliged to do after production and/or usefulness has been achieved. This will offset speculators and future developments that may radiate from this site, as well as others, and that if everybody has an understanding that this will revert back to the critters, all concerned will become better stewards of this or surrounding areas in order to assure the successful transition.

One other item that has not much to do with the sheep population, but an area that we are concerned about is the disruption and use of the affected habitat, i.e. plant life, etc. It is our desire to see the full use of this material utilized in conjunction with not only the healing process of the peripheral impacted area, but be inventoried and warehoused for future reclamation needs.

The fact that investigators did not find any evidence of sheep on the project site is not evidence that the site does not have at least some value, or potential value, to mountain sheep. Keep in mind that absence of evidence does not equate to evidence of absence.

The project site is suitable for Stirling's project because of the already existing freeway (I-40), the railroad, and the power line corridor that run to the south of the project area. In the absence of those features, the energy project likely would not be viable.

Those features, in particular the freeway, have resulted in a loss of potential connectivity to the mountain ranges to the south of the Cady Mountains. Those ranges include the Rodman and Newberry mountains, which are linked to the Bullion, Sheephole, Calumet, and Coxcomb mountains to the east and, likely, to the Old Woman, Iron, and Turtle Mountains. Given this situation, habitat fragmentation has already occurred and, as a result, the Cady Mountains represent the western terminus of one metapopulation, which is now isolated from other ranges to the south.

There likely remains some connectivity between the Cady Mountains and ranges to the east, including the Old Dad Mountains, Bullion Mountains, Granite Mountains, and points east. Doing everything possible to enhance connectivity between the Cady Mountains and the Bullion Mountains is in the best interest of conservation.

Although Stirling Energy is not responsible for the fragmentation that has occurred to date (i.e., the freeway, RR, and transmission line), it would be in the interest of conservation, public relations, and the long-term conservation of mountain sheep to contribute generously to efforts to ensure that connectivity between subpopulations of mountain sheep in the Cady Mountains and points to the east, particularly the Bristol Mountains, is enhanced. This might best be addressed by establishing additional water sources on the extreme east end of the Cady Mountains and the west end of the Bullion Mountains.

There will be some net loss of habitat, regardless of whether or not project biologists viewed the area as currently used by sheep, or viewed it as being of minimal importance. That alone dictates some sort of mitigation is appropriate.

I would think that Stirling Energy and others would be anxious to contribute to the long-term conservation of mountain sheep, regardless of the fact that they played no role in freeway, RR, or power line construction. The fact of the matter is that their project is viable only because that infrastructure already exists.

The health and well-being of the large vertebrate population in our desert regions has been clearly influenced (negatively) by being so fragmented, and with a little vision and cooperation with all the alternative energy resources, windmill, solar, etc, it may help offset the future effects of this fragmentation. We are in the process of fragmenting the fragments, which could be the death nil of a particular species, and there is a simple fix that could be shared by a multitude of land use principles. The energy commission should explore this in depth and factor this into any and all mitigation.

This is a short list of some of our concerns, and the Society for the Conservation of Bighorn Sheep wishes to be part of the fix, and not part of the problem. We are in the process of formulating a coalition of like-minded conservation organizations that have a proven track record in regard to wildlife and its habitat. This will help us address this project, as well as other alternative energy projects such as wind and/or additional solar projects collectively.

This is an opportunity, and we are looking forward to a partnership that truly will be beneficial for all concerned.

If you need additional information or wish to set up any interviews with the necessary concerned parties, my personal cell phone # is 805-501-1696 and my email address is ecology@ez2.net.

Sincerely,

George C. Kerr
Wildlife & Habitat Coordinator
Society for the Conservation of Bighorn Sheep



Society for the Conservation of Bighorn Sheep



www.scbs-californiadesertbighorn.com

The Society for the Conservation of Bighorn Sheep (SCBS) is a California registered, nonprofit organization, founded in 1964 and dedicated to the conservation and management of the Bighorn sheep. SCBS has had the longest record of working to restore our desert Bighorn in California. Its ongoing programs with State and Federal agencies have had a dramatic and positive effect on the resource. SCBS is the oldest nonprofit conservation organization working to help keep sheep on the mountain.

For over 40 years SCBS has contributed immeasurably to the comeback of this magnificent animal by raising funds and public awareness, seeking grants and financing studies, installing waterholes and wildlife drinkers, improving and enhancing habitat, and spearheading a translocation program to return the Bighorn to its historic ranges in the California desert. This restoration effort was undertaken by SCBS in cooperation with the California Department of Fish and Game (CDFG) and the Bureau of Land Management (BLM) under Memorandums of Understanding and in accordance with the CDFG's Bighorn Management Plan.

Statistics reflect the success of these endeavors. Currently the Bighorn has been restored to approximately fifty percent of its former habitat, and its population has increased by eighty percent.

DESERT WATER DEVELOPMENT PROGRAM

SCBS' primary program focuses on the development and maintenance of water sources and habitat improvement in the California deserts, including State and Federal lands, military bases and mitigation areas. SCBS members and volunteers perform surveys to determine site specific requirements, construct new water holding facilities, enhance existing water sources, clear tinajas, and eliminate non-native tamarisk and other vegetation. With a reliable water source and a secure location, Bighorn and other wildlife species are attracted onto the new ranges. SCBS members monitor and maintain each site to ensure a permanent year-round water supply.

To date, over 100+ wildlife drinkers and natural springs have been constructed and maintained, and many others are scheduled. The typical wildlife drinker project takes place in extremely remote terrain, often necessitating the use of helicopters to shuttle in supplies, equipment and workers. Most projects are completed within a week, with the majority of the physical labor taking place over a two-day period. Even with the hundreds of hours of labor contributed by SCBS and its volunteers, the cost of the average installation is about \$35,000.

SCBS and the CDFG have an ongoing program in place to restore Bighorn sheep to the California desert and mountain ranges. This effort involves the capture and translocation of the Bighorn into areas where water sources have been re-established and ranges enhanced. It is anticipated that the transplanted sheep will establish viable populations in the new ranges and supplement remnant groups, thus restoring vitality to the herd and assuring perpetuation of a strong and healthy species.

During the capture process, the sheep are given a complete medical examination. This procedure helps determine the general health of the herd and alerts game management agencies to any developing problems that may affect the success of the relocation project or the herd in general. The captured Bighorn are outfitted with radio transmitting collars, which enable continued monitoring of the herd.

Like the water for wildlife project, the translocations are expensive. The average project, involving about twenty sheep, costs approximately \$50,000 plus. SCBS has helped supply volunteers and funding to help offset the costs associated with capture and translocation programs.

HIGH TECH SOLUTIONS FOR AN OLD PROBLEM

Pioneering an innovative solution to the problem of monitoring water supplies in remote areas, SCBS initiated a pilot program to install electronic devices in the water storage tanks. Data transmitted daily from these units via an earth orbiting satellite provide valuable, up-to-the-minute information on current water conditions. Through this process, abnormalities can be spotted immediately and a "hot-shot crew" dispatched to the site to investigate the situation and take corrective action. This "quick response capability" is particularly desirable during hot, dry or extreme weather conditions where the lack of water at a previously viable water source could threaten the wildlife population. These findings are shared with CDFG, BLM and other game management agencies.

SCBS investigated this technology, raised the required funds and furnished the volunteer personnel to set up and maintain this exciting new program.

SCBS AND THE U.S. NAVY

SCBS and the U.S. Department of the Navy are involved in a joint program to determine population statistics of Bighorn sheep currently residing on the Marine Corps Air Ground Combat Center at Twenty-Nine Palms. Upon completion of an aerial survey and a

review of the resultant demographics, SCBS will recommend sites for the installation of water sources for the Bighorn that will be most beneficial to all parties involved. This information obtained from the survey will assist the Department of the Navy in planning future military training exercises at this base that will not adversely impact the Bighorn population.

SCBS will provide the expertise and manpower required to enhance existing water sources and to construct additional waterholes in the Bullion Mountain range, which historically has been home to a herd of Bighorn. By establishing a reliable water source in a more hospitable environment, it is hoped that the current Bighorn population will migrate, integrate and propagate into a healthy viable herd out of harm's way. These new installations will also provide an emergency survival water source for Marines during training maneuvers.

The statistical data obtained from this joint effort will be an invaluable tool for both State and Federal wildlife managers to make informed decisions on the future management of the Bighorn.

VOLUNTEER PROGRAM

In cooperation with the CDFG, BLM, NPS, and USFS, SCBS administers the Volunteer Desert Water and Wildlife Survey Program and the Desert Water Development Program (Water for Wildlife). This involves coordinating the efforts of thousands of members, volunteers and affiliates who assist in these projects. Data collected from their findings are furnished to various government agencies and provide meaningful statistics upon which land and animal management programs are based. In fulfilling its commitment to this program, SCBS members and volunteers have driven more than one million miles and have logged over 150,000 volunteer hours to help keep sheep on the mountain.

As impressive as SCBS' accomplishments have been, we still have a long way to go. None of these programs can succeed without the necessary funds and dedicated, caring individuals. Your contributions to SCBS and its mission are important and much appreciated, and all donations are tax deductible. Please contact us for additional information.

**SOCIETY FOR THE CONSERVATION OF
BIGHORN SHEEP**

Mission Statement: TO HELP KEEP SHEEP ON THE MOUNTAIN

The SCBS' mission and ultimate goal is the full restoration of California's Desert Bighorn to its historic range and the establishment of self-sustaining populations throughout those ranges.

**FOR OVER 40 YEARS, SCBS HAS BEEN
DOING GOOD THINGS FOR ALL THE RIGHT REASONS**

Affiliated with:

California Department of Fish and Game
Bureau of Land Management
National Park Services
United States Forestry Service
U.S. Navy
U.S. Marine Corps.
Safari Club International
Quail Unlimited
California Mule Deer Association
Industry and Corporate Affiliates
CALFNAWS
FNAWS