Sage Grouse Protection Measures Concept presented by the Oil and Gas Industry

This concept provides direct protection for Sage-grouse lek, nesting and brood rearing and critical winter habitats and indirect protection for other seasonal habitats.

LEKS

Occupied Lek Definition

- Connelly et al. (2000) states that lek sites per se are not in short supply and are selected primarily on the basis of where the hens are during the nesting season.
- We suggest adopting the following definition of occupied lek, as found in Connelly et al. (2000): "–attended by two or more male sage-grouse in two or more of the previous 5 years."

Determination of Lek Occupancy

To address the issue of leks whose current activity status is unknown, but that are classified as occupied, the following is proposed:

- Leks with unknown activity status in the last 5 years, but that are classified as "occupied" must be checked several times during the strutting season. If no birds are found, allow development outside the 1/4-mile radius to occur.
- In this way, it can be established whether or not the lek is in use during any given season.

Coordination

Where BLM biologists are not able to survey all project associated leks, they need to assign some leks to industry consultants to insure that the status of leks is determined and industry is not denied timely access.

- If the lek is not being used by April 1 it is certain that it will not be used that year.
- If the lek is not being used that year, no nesting birds from that lek will be disturbed by allowing development to occur.

Complex

- If it cannot be determined that the lek has been inactive for 5 years (meeting the Connelly et al. 2000 definition for unoccupied), determine if the lek is part of a complex.
- If the lek is part of a complex, map the suitable nesting habitat as described in the nesting section below, to provide protection for nesting hens associated with the complex.
- The lek does not require protection from activity or noise outside the 1/4-mile radius if it is not in use and not part of a lek complex.

Lek Activity Status

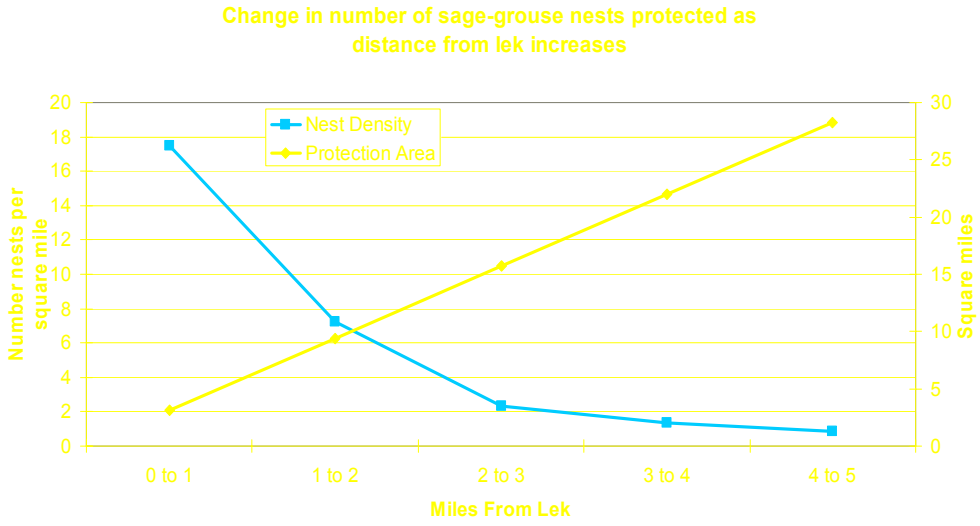
- Using this protocol the integrity of the lek, if it is a lek, will have been protected in the event that it is used by grouse in the future.
- If an unoccupied and inactive lek is not part of a complex, protection of suitable nesting habitat is not required (i.e. the lek and the breeding population do not exist to use the nesting habitat).
- Lek activity status can be determined by viewing strutting grouse or by observing indirect signs of strutting activity.

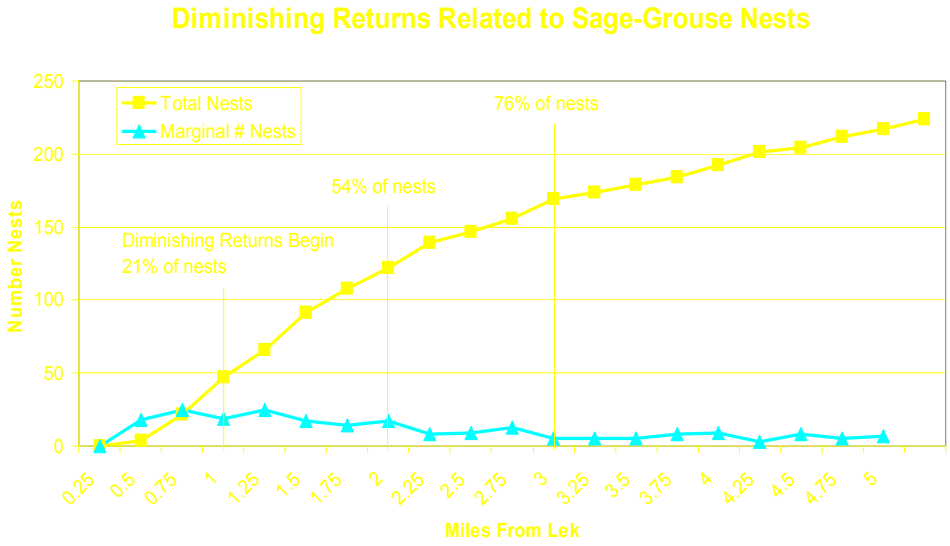
NESTING/BROOD REARING

Nest distribution in relation to the lek and the law of diminishing returns

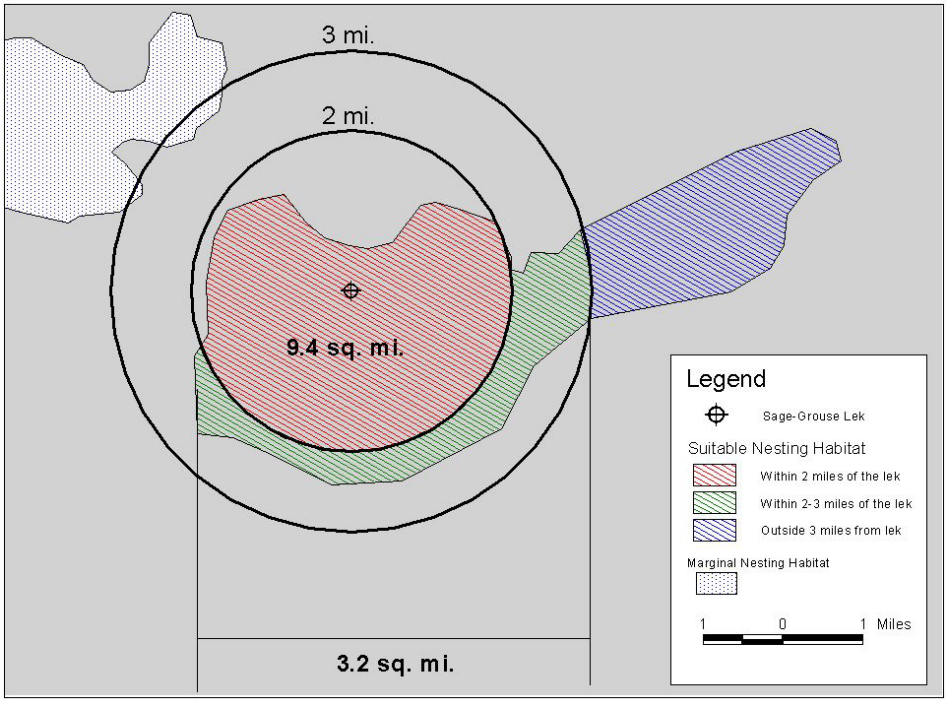
- The following slides illustrate how the nesting density decreases with distance from the lek, the law of diminishing returns, and the rate at which cost to the operators increases with distance from the lek.

- The point being demonstrated is that the amount of benefit to sage-grouse for a given level of effort drops off rapidly as distance from the lek increases, while at the same time costs to the operators increase dramatically.





We propose protecting the best 12.56 sq miles of nesting habitat within a 3 mile radius of the lek and maintaining the ¼ mile no surface occupancy stipulation for the protection of active/occupied leks. The arbitrary exclusion of activity from a set radius does not allow for both the protection of nesting habitat and for the continuation of oil and gas activities. This proposal protects more nesting habitat than the current two mile radius of exclusion which merely places a timing restriction on activities within the radius and does not protect the habitat outside that time period. This concept provides greater benefits to the grouse by mapping and protecting up to 12.56 sq miles (the area currently provided by the 2 mile radius but without the knowledge that it is actually nesting habitat) of habitat within 3 miles and avoiding impacts to that habitat in the future.



- This approach would insure the protection of up to 12.56 sq. mi. of the most suitable nesting habitat and would constitute an increase over the area of nesting habitat that is currently being protected within the 2-mile radius, resulting in an increase in the number of nesting hens protected.
- Although 50% of sage-grouse nests occur within 2 miles (12.56 sq. mi.) of a lek, according to the landscape average, these areas are seldom 100% covered with nesting habitat.
- Therefore, it is intuitive that any expansion beyond two miles to accumulate 12.56 sq. mi. of total suitable nesting habitat will protect more nests than the usually lesser amount of nesting habitat that occurs within the currently stipulated 2-mile radius.
- With the two miles we get 50%, but by going out to three miles to include 12.56 sq. mi. of suitable nesting habitat we could potentially include up to 67% - 76% of the nesting hens associated with a lek.
- The ¼-mile NSO around a lek is not affected by this proposal.
- This modification would put an outside limit on the total amount of nesting habitat that has to be mapped and protected, while providing significantly greater protection of nesting sage-grouse than has been accomplished historically.
- Further, this will provide assurance to BLM and CDOW that more effective habitat is mapped and protected, while establishing a consistent standard for industry.

Critical Winter Habitat

- If wintering sage-grouse have adequate and suitable sagebrush to eat, they usually emerge from winter in good physical condition.
- Sagebrush habitats are generally abundant in areas inhabited by sage-grouse and, during most winters, are not in short supply or, according to WAFWA 2004, limiting to sage-grouse populations.

- During severe winters, much of the sagebrush is unavailable because of snow depth, and sage-grouse are restricted to the taller stands of sagebrush which generally make up a relatively small percentage of the total sagebrush community.
- Under severe winter conditions, the shortage of these taller stands of sagebrush would likely be a limiting factor in the survival of grouse.

- The literature shows (WAFWA 2004) that winter is not a significant limiting factor to sage grouse except during unusually severe conditions and extreme snow depths.
- Sage-grouse normally gain weight during the winter (Beck and Braun 1978).
- Research in progress since 2001 (BLM, Industry, HWA) shows that during extreme winters with exceptionally deep snows, sage-grouse concentrate in the relatively few areas that have sagebrush tall enough to remain above the snow.
- If these areas are protected, it should not be necessary to protect all of the areas where sage-grouse spend normal winters because there is no shortage of generic winter habitat.