



The uncertainties as to where and at what level development will proceed, as well as uncertainties associated with the environmental sciences used to predict impacts, suggest that the one-time determination of impacts that is included in the supplemental draft EIS may not be appropriate for this project. However, a carefully prepared and thoroughly evaluated adaptive management strategy may be suitable for dealing with these uncertainties. Such a strategy would provide a mechanism for continuously modifying management practices to allow continued use, exploration, and development while continuing to protect the environment.

## **OBJECTIVES AND GOALS**

The main objective of the JMH CAP adaptive management strategy is to allow flexibility for multiple use activities and sustained yield, while meeting the JMH CAP management objectives. These management objectives, in summary, are—

- For Land and Water Resources Management, the planning area would be managed to maintain or enhance land and water resources using ecological principles and science-based performance criteria.
- For Heritage Resources Management, the planning area would be managed to protect important heritage resources (cultural, historic, archaeological, and unique geological features) while allowing for educational research and appropriate interpretive uses.
- For Travel-Access-Realty Management, the planning area would be managed to accommodate access needs for approved public land uses and to manage access where appropriate to protect other resource values.
- For Recreation Resources Management, the planning area would be managed to accommodate opportunities for recreational resources while protecting other resource values and minimizing conflicts with other resource uses.
- For Mineral and Alternative Energy Resources Management, the planning area would be managed to provide opportunities for mineral extraction and energy development while protecting other resource values.
- For Visual Resources Management, the planning area would be managed to maintain or improve scenic value and overall visual quality by managing impacts of human activities and other intrusions on the visual landscape.
- For Special Management Areas Management, the planning area would be managed to protect unique resource values of Special Management Areas.

This will be accomplished through maintaining biological integrity, such as measured by Wyoming Standards for Healthy Rangelands, through a dynamic adjustment process; satisfying needs for adequate wildlife habitat and use of that habitat (crucial winter range, calving/fawning, migration corridors, etc.); protecting other sensitive resources; and maintaining public health and safety. The adaptive management strategy would comply with the intent of the Federal Land Policy and Management Act (FLPMA) by providing a combination of balanced and diverse resource uses and taking into account the long-term needs of future generations for renewable and nonrenewable resources (see definitions of multiple use and sustained yield).



implementation strategy focuses on timing and sequencing of oil and gas development activity. Other activities will follow the same process.

The first step in the strategy involves dividing the Jack Morrow Hills planning area into three types of areas. These areas may not be geographically contiguous. One area would be open to activity, including activity on existing leases, as well as new leasing and development. A second area would be open to activity on existing leases, with new leasing based on adaptive management information. New leases would not be issued in the short term. As information from ongoing activity is gathered, areas would be identified for leasing consideration with appropriate mitigation. This mitigation would take into consideration the data acquired through monitoring, and the guidance, goals, and objectives in the JMH CAP. Other activities that match the strategy for the adaptive management implementation in this area could be allowed. The third area would have neither activity nor new leasing until adaptive management information has been gathered and indicates that these activities can occur without unacceptable impacts (Map A17-1). Other activities that follow the strategy for the adaptive management implementation in this area could be allowed. These three areas were identified taking into consideration the goals and objectives for the JMH CAP, resource conflicts, public comment and input, current resource information, and estimation of effects.

Initially, under the adaptive management implementation strategy, some suspended leases in the planning area would be reinstated; others would remain in suspension, or new suspensions would be implemented. Lifting of lease suspensions and nominations for new leases within the planning area would be considered on a case-by-case basis using the adaptive management strategy. As leases expire within the entire planning area, they would be considered for subsequent lease offerings on a case-by-case basis when monitoring of resource indicators under the adaptive management strategy shows they can be offered for lease.

Existing lease suspensions will end with the signing of the record of decisions for the JMH CAP. Where it has been determined, through the adaptive management implementation strategy, that it is not timely to allow activity on some existing leases with suspensions, new suspensions will be put in place.

At anytime, activity proposals could be submitted for any portion of the JMH CAP area, with proposed mitigation to address the issues and sensitive resource needs. Each proposal would be evaluated on a case-by-case basis taking into consideration the adaptive management strategy and information and data received through monitoring. If goals and objectives could be met, and adverse impacts could be avoided or mitigated, the proposal could be allowed. If goals and objectives could not be met, and adverse impacts could not be avoided or mitigated, the activity would be deferred until the resource indicators determine it could occur.

The Green River Resource Management Plan (RMP) (BLM 1997) provided the direction for preparing the JMH CAP. The record of decision for the RMP, deferred some decisions in the JMH CAP area. The Green River RMP stated—

“The fluid mineral leasing decisions and some locatable mineral decisions are deferred in a ‘core’ area, involving the eastern portion of the Greater Sand Dunes Area of Critical Environmental Concern (ACEC) (not including any parts of the Buffalo Hump or Sand Dunes Wilderness Study Areas - WSAs - because WSAs are closed to mineral leasing by Congressional mandate), the entire Steamboat Mountain ACEC, and the area of overlapping crucial big game habitats surrounding and adjacent to the Greater Sand Dunes and Steamboat Mountain ACECs.



standards). Additional information such as roads (location, number, design), utilities, pipelines, and well sites will be collected to support management decisions relative to resource indicators. These resource indicators may be further defined based on public comment received on the supplemental draft EIS.

**Table A17-1. Resource Indicators**

<b>Resource Indicator</b>	<b>Information Resource Indicator Provides</b>
Elk distribution	Integrity of key habitats and migratory corridors (amount of continuous land between important habitats)
Elk numbers (total and cow/calf ratio)	Health and security of herd
Mule deer distribution	Integrity of key habitats and migratory corridors (amount of continuous land between important habitats)
Mule deer numbers (total and doe/fawn ratio)	Health and security of herd
Sage-grouse lek use (presence/absence)	If disturbance has possibly caused lek abandonment
Standards for Healthy Rangelands*	Change in rangeland and watershed health (+/-)
Roads and trails creation	Change watershed health (+/-), habitat fragmentation, migratory corridor integrity (amount of continuous land between important habitats)
Road density	Change watershed health (+/-), habitat fragmentation, migratory corridor integrity (amount of continuous land between important habitats)
Changes in stability of dunes	Habitat loss/gain, watershed health, habitat use/fragmentation/expansion, soil stability
Disruptive activity and surface disturbance	Change in erosion potential, habitat fragmentation/integrity, migratory corridor integrity (amount of continuous land between important habitats), soil stability, watershed health
Recreation use (surveys, traffic counts)	Amount of visitors, activity and type of use, location of use (when, where).

\*Each of the six rangeland standards contains specific indicators (USDI, Bureau of Land Management, Standards for Healthy Rangelands and Guidelines for Livestock Grazing Management for Public Lands Administered by the Bureau of Land Management in the State of Wyoming, August 12, 1997). See Appendix 10, Standards for Healthy Rangelands and Guidelines for Livestock Grazing Management.

See Appendix 9, Reclamation and Monitoring

Consideration will be given to those occurrences outside BLM's control such as environment (weather, drought), outside agency jurisdiction/laws, socioeconomic (politics, local economics, level of interest), topography/lay of the land, location of heritage resources (site specific), location of mineral resources, and technology.

Source: Working paper, n.d. "Draft Interim Management Guidelines for the Greater Sage-Grouse and Sagebrush-Steppe Ecosystems for BLM-Administered Public Lands in Wyoming." 64 pp. USDI-BLM, Oregon Department of Fish and Wildlife, USFWS, USDA-Forest Service, and Oregon Department of State Lands.

## **MONITORING AND EVALUATION**

Council on Environmental Quality (CEQ) regulations provide for appropriate application of continual monitoring and assessment. Section 102(2)(B) of the National Environmental Policy Act (NEPA) calls for "*methods...which will insure that presently unquantified environmental amenities and values may be given appropriate consideration.*" CEQ regulations (40 CFR 1505.2(c); 1505.3(c) and (d)) state "*a monitoring and enforcement program shall be adopted and summarized where applicable for any mitigation*" and that agencies "*may provide for monitoring to assure that their decisions are carried out and should do so in important cases.*" The lead agency must "*upon request, inform cooperating or commenting agencies on progress in carrying out mitigation measures which they have proposed and which were adopted by the agency making the decision.*" And, "*upon request, make available to the public the results of relevant monitoring.*"



