

## CHAPTER VII

### THE RELATIONSHIP BETWEEN LOCAL SHORT-TERM USES OF MAN'S ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY

Mining will result in the introduction of new roads, buildings, trackage, powerlines, and heavy equipment into an area not appreciably changed from its natural state except by an electrical transmission line, a county road and the attendant structures associated with grazing and farming activities.

The lease area will be committed to coal production for a period of about 22 years, based on anticipated production levels.

As the coal is mined, the overlying soil and rocks will be removed and the affected acreage will be lost to grazing and rangeland recreation for a period of five or six years.

The impacts arising from the short-term use of the environment will be minimized to the greatest extent practicable consistent with modern mining and reclamation practices. Grading of spoils will reduce ridges to a rolling topography aesthetically consistent with surrounding undisturbed areas. Replacement of soil material and establishment of vegetative cover will return mined land to grazing as soon as possible following extraction of the coal.

Mining will temporarily disrupt the flow of surface water. Ground water levels may be lowered locally because of the removal of parts of aquifers

in unconsolidated material, sandstone, and coalbeds. Rainwater and water flowing into the mined area will probably be retained by infiltration into the spoils, creating perched water tables.

The preceding indicates that the short-term use of parts of the leasehold for mining will be accompanied and followed by a period of reclamation and revegetation. Although the land's appearance will be permanently changed, its attractiveness should not be adversely affected. Other potential long-term land uses may be impaired by introduction of heavy industry, housing developments, and development of other resources. In addition, coal used for power generation will not be available for other uses or for future use.

At maximum production, 231 acres will be disturbed by mining each year with an equal number of acres undergoing grading and planting. At any one time the total area disturbed will be about 500 to 600 acres. Since final reclamation of a particular area is estimated to lag about five years behind mining, wildlife and livestock will be displaced for at least that period of time.

In summary, the land will be used for mining coal rather than for grazing and wildlife habitat for a period of five to ten years at which time the land should be restored to its former or other designated uses.

Disturbed land, presence of heavy equipment, other mine-related facilities, and associated noise, dust, and solid waste will be only of short duration. After mining, reclamation, and revegetation are completed, the principal long-term changes will be local modification of the topography and of surface drainage systems, and loss or reduction of productive capacity.

It is estimated that the total productive capacity of the land will be reduced 50 percent over present levels even if revegetation is successful. Reclamation techniques in this semiarid climate have to be tested before any final predictions can be made as to success ratios.

Wildlife habitat for those animals which depend on a sagebrush type will be destroyed for a period of 20 to 50 years. Figure 7 in Chapter V of Part I shows the time span from point of disturbance which is required for replacement of adequate habitat for various animals groups.

Mining of this area will involve a long-term loss in productivity. Under climatic conditions which prevail for this area, the area may never regain its present productive capacity.